Table 1 Body size variation across domains of life

Domain	Kingdom	Smallest taxon			Largest taxon			Biovolume range[c]	References
		Name	Length	Biovolume (mm^3)[a]	Name	Length	Biovolume (mm^3)[a]		
Bacteria	—	*Mycoplasma genitalium*	200 nm	8×10^{-12}	*Epulopiscium fishelsoni*	0.7 mm	3.8×10^{-3}	8.7	Smith & Lyons 2013
Archaea	—	*Thermodiscus* sp.	200 nm	8×10^{-12}	*Staphylothermus marinus*	15 μm	3.4×10^{-6}	5.6	Schulz & Jørgensen 2001
Eukarya	Protista	*Chaetoceros* sp.	<9 μm	7.3×10^{-4}	Giant kelp (*Macrocystis pyrifera*)	45 m	4.5×10^{6}	9.8	Gomi et al. 2010, Steneck et al. 2002
	Fungi	*Rozella* sp.	30 μm	2.7×10^{-2}	*Fomitiporia ellipsoidea*	1,085 cm	4.1×10^{9}	11.2	Held 1981, Dai & Cui 2011
	Plantae	*Ostreococcus tauri*	0.97 μm	4.8×10^{-10}	Redwood (*Sequoia sempervirens*)	115 m	9×10^{12}[b]	22.3	Fry & White 1938, Courties et al. 1994
	Animalia	*Myxobolus* sp.	20 μm	8×10^{-6}	Blue whale (*Balaenoptera musculus*)	31 m	1.9×10^{11}[b]	16.4	Yokoyama et al. 2003, Smith & Lyons 2013

[a] Biovolume was calculated according to methods described in the sidebar Measuring Size.
[b] Biovolume was taken from Payne et al. (2009).
[c] Orders-of-magnitude difference in biovolume between smallest and largest taxon.

Courties C, Vaquer A, Troussellier M, Lautier J, Chr´etiennot-Dinet MJ, et al. 1994. Smallest eukaryotic organism. *Nature* 370:255

Dai YC, Cui BK. 2011. *Fomitiporia ellipsoidea* has the largest fruiting body among the fungi. *Fungal Biol.* 115:813–14

Fry W,White JR. 1938. *Big Trees*. Stanford, CA: Stanford Univ. Press

Gomi Y, Fukuchi M, Taniguchi A. 2010. Diatom assemblages at subsurface chlorophyll maximum layer in the eastern Indian sector of the Southern Ocean in summer. *J. Plankton Res.* 32:1039–50

Held AA. 1981. *Rozella* and *Rozellopsis*: naked endoparasitic fungi which dress-up as their hosts. *Bot. Rev.* 47:451–515

Payne JL, Boyer AG, Brown JH, Finnegan S, Kowalewski M, et al. 2009. Two-phase increase in the maximum size of life over 3.5 billion years reflects biological innovation and environmental opportunity. *PNAS* 106:24–27

Schulz HN, Jørgensen BB. 2001. Big bacteria. *Annu. Rev. Microbiol.* 55:105–37

Smith FA, Lyons SK, eds. 2013. *Animal Body Size: Linking Pattern and Process Across Space, Time and Taxonomy*. Chicago: Univ. Chicago Press

Steneck RS, Graham MH, Bourque BJ, Corbett D, Erlandson JM, et al. 2002. Kelp forest ecosystems: biodiversity, stability, resilience and future. *Environ. Conserv.* 29:436–59

Yokoyama H, KawakamiH, Yasuda H, Tanaka S. 2003. *Henneguya lateolabracis* sp. n. (Myxozoa: Myxosporea), the causative agent of cardiac henneguyosis in Chinese sea bass *Lateolabrax* sp. *Fish. Sci.* 69:1116–20