

# **41 Publiserte rapporter om originale myke vevsfossiler**

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Bløtvev som i hovedsak er uendret, bør ikke eksistere i fossiler som er millioner av år gamle. Dette er fordi, i samsvar med loven om entropi, brytes biokjemikalierne i slike vev spontant ned bare i tusenvis av år etter døden.

Diagrammet nedenfor er et sammendrag av tekniske og andre rapporter som beskriver originale bløtvevsfossiler som kom fra en rekke unike fossile steder rundt om i verden. Mange av rapportene omhandler hvordan forskere brukte spesialutstyr for å oppdage originale biokjemikalier. Annet enn å ha delvis brutt ned, hadde vevene ikke blitt kjemisk endret siden de ble fanget eller begravet. Hver rapport står derfor som et vitne som vitner om den unge alderen - bare tusenvis av år, i stedet for

millioner - av fossiler og tilhørende steinlag.

## FOSSIL ANALYSES WITH VERIFIED ORIGINAL SOFT TISSUES

Publication Date	Brief Description	Evolutionary Age	Publication
<b>Articles Published in Peer-Reviewed Journals</b>			
1	8/6/1966	<i>Tarbosaurus</i> collagen fibers	80MY Pawlicki, R. et al, <i>Nature</i> , 211 (5049): 655-657.
2	6/14/1992	Seismosaur osteocalcin (bone protein)	150MY Muyzer, G. et al, <i>Geology</i> , 20: 871-874.
3	9/25/1992	DNA in amber	30MY Morell, V. et al, <i>Science</i> , 257 (5078): 1860-1862.
4	6/16/1994	Hadrosaur bone possible DNA	65MY Woodward, S. R., N. J. Weyand, and M. Bunnell, <i>Science</i> , 266 (5188): 1229-1232.
5	5/19/1995	Live bacteria spores from amber	25-40MY Cano, R. J. and M. K. Borucki, <i>Science</i> , 268 (5213): 1060-1064.
6	6/10/1997	<i>T. rex</i> bone hemoglobin fragments	67MY Schweitzer, M. et al, <i>PNAS</i> , 94 (12): 6291-6296.
7	6/2/1999	Live bacteria from halite deposit	250MY Vreeland, R. H. et al, American Society for Microbiology, 99th General Meeting, June 2, 1999, Chicago.
8	6/21/1999	Live bacteria from separate rock salts	250MY Stan-Lotter, H. et al, <i>Microbiology</i> , 145 (12): 3565-3574.
9	6/21/1999	Cretaceous Madagascar bird keratin	65MY Schweitzer, M. H. et al, <i>J. Vert. Paleol.</i> , 19 (4): 712-722.
10	9/1/2001	<i>T. rex</i> collagen SEM scans	65MY Armitage, M., <i>Creation Research Society Quarterly</i> , 38 (2): 61-66.
11	6/26/2004	Live (non-spore) bacteria in amber	120MY Greenblatt, C. L. et al, <i>Microbial Ecology</i> , 48 (1): 120-127.
12	3/24/2005	<i>T. rex</i> soft tissue	68MY Schweitzer, M. et al, <i>Science</i> , 307 (5717): 1952-1955.
13	7/25/2006	Soft frog, intact	10MY McNamara, M. et al, <i>Geology</i> , 34 (8): 641-644.
14	6/30/2007	<i>T. rex</i> collagen	68MY Schweitzer, M. et al, <i>Science</i> , 316 (5822): 277-280.
15	1/22/2007	<i>Triceratops</i> and <i>T. rex</i> blood vessels	68MY Schweitzer, M. H. et al, <i>Proc. Roy. Soc. B</i> , 274: 183-197.
16	4/7/2008	<i>Psittacosaurus</i> skin	125MY Linghan-Soliar, T. et al, <i>Proc. Royal Soc. B</i> , 275: 775-780.
17	7/8/2008	Feather melanocytes	100MY Vinther, J. et al, <i>Biology Letters</i> , 4: 522-525.
18	4/30/2009	Hadrosaur blood vessels	80MY Schweitzer, M. et al, <i>Science</i> , 324 (5927): 626-631.
19	8/26/2009	Purple Messel feather nanostructure	40MY Vinther, J. et al, <i>Biology Letters</i> , 6 (1): 128-131.
20	5/19/2009	Primate "Ida" soft body outline	40MY Franzen, J. L. et al, <i>PLoS ONE</i> , 4 (5): e5723.
21	7/1/2009	Hadrosaur skin cell structures	66MY Manning, P. et al, <i>Proc. Royal Soc. B</i> , 276: 3429-3437.
22	10/2/2009	Permo-triassic fungal chitin	250MY Jin, Y. G. et al, <i>Science</i> , 289 (5478): 432-436.
23	8/18/2009	Squid ink	160MY Whilby, P.R. et al, <i>Geology Today</i> , 24 (3): 95-98.
24	11/5/2009	Salamander muscle, whole	18MY McNamara, M. et al, <i>Proc. Royal Soc. B</i> , 277 (1680): 423-427.
25	2/25/2010	<i>Sinosauropteryx</i> melanosomes	125MY Zhang, F. et al, <i>Nature</i> , 463: 1075-1078.
26	5/14/2010	Mammal hair in amber	100MY Vullo, R., <i>Naturwissenschaften</i> , 97 (7): 683-687.
27	5/18/2010	<i>Archaeopteryx</i> original feather remnants	150MY Bergmann, U., <i>PNAS</i> , 107 (20): 9060-9065.
28	8/9/2010	Mosasaaur blood, retina	65-68MY Lindgren, J., <i>PLoS ONE</i> , 5 (8): e11998.
29	11/12/2010	Penguin feathers	36MY Clarke, J. A. et al, <i>Science</i> , 330 (6006): 954-957.
30	2/7/2011	Chitin and chitin-associated protein	417MY Cody, G.D. et al, <i>Geology</i> , 39 (3): 255-258.
31	4/1/2011	C-14 date of mosasaur (24,600 Yrs)	70MY Lindgren, J. et al, <i>PLoS ONE</i> , 6 (4): e19445.
32	3/23/2011	Lizard tail skin, Green River	40MY Edwards, N. P. et al, <i>Proc. Royal Soc B</i> , 278: 3209-3218.
33	6/8/2011	<i>T. rex</i> and hadrosaur Type I Collagen	68MY San Antonio, J. D. et al, <i>PLoS ONE</i> , 6 (6): e20381.
34	6/30/2011	Bird feather pigment	120MY Wogelius, R. A. et al, <i>Science</i> , 333 (6049): 1622-1626.
35	2013	<i>Triceratops</i> horn soft tissue whole sheet	67MY Armitage, M. H., and K. L. Anderson, <i>Acta Histochemica</i> , 115 (6): 603-608.
36	10/15/2015	Tube worm chitin	551MY Moczydlowska, M. F. et al, <i>J. Paleontology</i> , 88 (2): 224-239.
37	7/9/2015	<i>Brachylophosaurus</i> collagen sequence	75MY Bertazzo, S. et al, <i>Nature Communications</i> , 6: 7352.
38	9/15/2016	<i>Psittacosaurus</i> skin scale keratin	120MY Vinther, J., et al, <i>Current Biology</i> , 26 (18): 1-7.
39	1/31/2017	<i>Lufengosaurus</i> rib collagen	190MY Lee, Y.-C. et al, <i>Nature Communications</i> , 8: 14220.
40	8/29/2017	Dinosaur eggshell protoporphyrin, biliverdin	66MY Wiemann, J. et al, <i>PeerJ</i> , 5: e3706.
41	4/18/2018	Conodont keratin residue	252MY Terrill, D. F. et al, <i>J. of Analytical Spectrometry</i> , 33: 992-1002.

### Selection of Published Reports of Original Soft Tissue Fossils

Papers that were excluded from the list include those with dubious verbiage, especially those that discussed "soft tissues" but failed to specify whether or not the tissues were original or chemically altered to a more resistant material. Those papers that specified the latter were also excluded, to the best of the author's ability to discern. The chart demonstrates that a multitude of verified original soft tissue and biochemical "clocks" have set maximum ages of thousands of years to samples that had all been assigned ages of millions of years.