Supplementary Information

The first oviraptorosaur (Dinosauria: Theropoda) bonebed: evidence of gregarious behaviour in a maniraptoran theropod

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Table S1: Catalog of *Avimimus* specimens from the *Avimimus* bonebed in the Nemegt Formation of Mongolia.

MPC number	Specimen #	Date Found	Taxon	Element	Found by	Locality	Formation	North	East
MPC-D 102/15	PJC2006.001	Aug. 17, 2006	*Avimimus*	right tibia proximal end and shaft	Nick Longrich	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/101	PJC2006.002	Aug. 17, 2006	*Avimimus*	cervical vertebra	Nick Longrich	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/16	PJC2006.003	Aug. 17, 2006	*Avimimus*	dentaries	Nick Longrich	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.004	Aug. 17, 2006	*Avimimus*	pedal phalanx	Nick Longrich	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.005	Aug. 17, 2006	*Avimimus*	pedal phalanx	Nick Longrich	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/17	PJC2006.006	Aug. 17, 2006	*Avimimus*	right astragalus and tibia distal end	Nick Longrich	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/18	PJC2006.007	Aug. 17, 2006	*Avimimus*	right astragalus and tibia distal end	Nick Longrich	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/19	PJC2006.008	Aug. 17, 2006	*Avimimus*	right astragalus and tibia distal end	Nick Longrich	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/20	PJC2006.009	Aug. 17, 2006	*Avimimus*	right astragalus and tibia distal end	Nick Longrich	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/21	PJC2006.010	Aug. 17, 2006	*Avimimus*	metatarsals shafts II & IV	Nick Longrich	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.011	Aug. 17, 2006	*Avimimus*	phalanx	Nick Longrich	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/22	PJC2006.012	Aug. 17, 2006	*Avimimus*	left astragalus and distal tibia	Nick Longrich	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/23	PJC2006.013	Aug. 17, 2006	*Avimimus*	left astragalus and distal tibia	Nick Longrich	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/24	PJC2006.014	Aug. 17, 2006	*Avimimus*	left astragalus and distal tibia	Nick Longrich	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/25	PJC2006.015	Aug. 17, 2006	*Avimimus*	left astragalus and distal tibia	Nick Longrich	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/26	PJC2006.016	Aug. 17, 2006	*Avimimus*	right tibia, fibula, astragalus, calcaneum	Nick Longrich	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.017	Aug. 17, 2006	*Avimimus*	vertebra	Nick Longrich	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.018	Aug. 17, 2006	*Avimimus*	phalanx plus ?	Nick Longrich	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.022	Aug. 18, 2006	*Avimimus*	rib head	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.023	Aug. 18, 2006	*Avimimus*	rib	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/27	PJC2006.024	Aug. 18, 2006	*Avimimus*	femur left distal end tibia left prox. end	Nick Longrich	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min

MPC-D 102/28	PJC2006.025	Aug. 18, 2006	*Avimimus*	right proximal tarsometatarsus	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/29	PJC2006.026	Aug. 18, 2006	*Avimimus*	left proximal tarsometatarsus	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/30	PJC2006.027	Aug. 18, 2006	*Avimimus*	right proximal tarsometatarsus	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/31	PJC2006.028	Aug. 18, 2006	*Avimimus*	left proximal tarsometatarsus	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/32	PJC2006.029	Aug. 18, 2006	*Avimimus*	right proximal tarsometatarsus	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/33	PJC2006.029	Aug. 19, 2006	*Avimimus*	skull frag ?	Eva B. Koppelhus	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/102	PJC2006.044	Aug. 19, 2006	*Avimimus*	cervical vertebra					
	PJC2006.050	Aug. 18, 2006	*Avimimus*	phalanx	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.051	Aug. 18, 2006	*Avimimus*	fibula shaft	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/34	PJC2006.059	Aug. 19, 2006		partial skull					
MPC-D 102/35	PJC2006.104	Aug. 19, 2006	*Avimimus*	metatarsal II	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/36	PJC2006.105	Aug. 20, 2006	*Avimimus*	femur, left complete	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.106	Aug. 20, 2006	*Avimimus*	ungual	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.107	Aug. 20, 2006	*Avimimus*	rib	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.108	Aug. 20, 2006	*Avimimus*	distal end of metatarsal	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.109	Aug. 20, 2006	*Avimimus*	pedal phalanx	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.110	Aug. 20, 2006	*Avimimus*	pedal phalanx	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.111	Aug. 20, 2006	*Avimimus*	phalanx distal end	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.112	Aug. 20, 2006	*Avimimus*	vertebra	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/37	PJC2006.113	Aug. 20, 2006	*Avimimus*	metatarsal right	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/38	PJC2006.114	Aug. 20, 2006	*Avimimus*	left tibia incomplete	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/39	PJC2006.115	Aug. 20, 2006	*Avimimus*	metatarsal II right	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D	PJC2006.116	Aug. 20,	*Avimimus*	metatarsal IV left	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min

102/40		2006							
MPC-D 102/41	PJC2006.117	Aug. 20, 2006	*Avimimus*	metatarsal IV right	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/42	PJC2006.118	Aug. 20, 2006	*Avimimus*	tibia + fragments in a small plastic bag	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.119	Aug. 20, 2006	*Avimimus*	fibula	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.120	Aug. 20, 2006	*Avimimus*	phalanx	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/43	PJC2006.122	Aug. 20, 2006	*Avimimus*	metatarsal	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.123	Aug. 20,2006	*Avimimus*	rib	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.124	Aug. 20, 2006	*Avimimus*	rib head	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/44	PJC2006.125	Aug. 20, 2006	*Avimimus*	tibia head	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/45	PJC2006.126	Aug. 20, 2006	*Avimimus*	metarsal III	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/46	PJC2006.127	Aug. 20, 2006	*Avimimus*	tarsometatarsus proximal end left	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/47	PJC2006.128	Aug. 20, 2006	*Avimimus*	distal end of tibia + astragalus right	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/48	PJC2006.129	Aug. 20, 2006	*Avimimus*	metatarsal	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.130	Aug. 20, 2006	*Avimimus*	ischium	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.131	Aug. 20, 2006	*Avimimus*	ilium in three pieces	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/103	PJC2006.164	Aug. 20, 2006	*Avimimus*	cervical vertebra	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/49	PJC2006.165	Aug. 20, 2006	*Avimimus*	pubis	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.166	Aug. 20, 2006	*Avimimus*	fibula	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.167	Aug. 20, 2006	*Avimimus*	fibula	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/104	PJC2006.168	Aug. 20, 2006	*Avimimus*	cervical neural arch	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.169	Aug. 20, 2006	*Avimimus*	forelimb	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/50	PJC2006.170	Aug. 20, 2006	*Avimimus*	pubic boot	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/51	PJC2006.171	Aug. 20, 2006	*Avimimus*	right tibia (partial)	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min

MPC-D 102/52	PJC2006.172	Aug. 20, 2006	*Avimimus*	distal end of right tibia	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/53	PJC2006.176	Aug. 22, 2006	*Avimimus*	proximal end of tibia	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/54	PJC2006.177	Aug. 22, 2006	*Avimimus*	tarsometatarsal only proximal end	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/55	PJC2006.178	Aug. 22, 2006	*Avimimus*	proximal end of humerus	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/56	PJC2006.30	Aug. 18, 2006	*Avimimus*	right proximal tarsometatarsus	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/57	PJC2006.31	Aug. 18, 2006	*Avimimus*	right proximal tarsometatarsus ???	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/58	PJC2006.32	Aug. 18, 2006	*Avimimus*	right proximal tarsometatarsus fragment	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/59	PJC2006.33	Aug. 18, 2006	*Avimimus*	right proximal tarsometatarsus	Michael Ryan	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/60	PJC2006.34	Aug. 18, 2006	*Avimimus*	shaft of mt III	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/61	PJC2006.35	Aug. 18, 2006	*Avimimus*	distal end of mt III	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/62	PJC2006.36	Aug. 18, 2006	*Avimimus*	right tibia proximal end	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/63	PJC2006.37	Aug. 18, 2006	*Avimimus*	right tibia proximal end	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.38	Aug. 18, 2006	*Avimimus*	right femur distal + ?	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.39	Aug. 18, 2006	*Avimimus*	right femur proximal end	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.40	Aug. 18, 2006	*Avimimus*	right femur distal end	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.41	Aug. 18, 2006	*Avimimus*	left femur distal end	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.42	Aug. 18, 2006	*Avimimus*	pedal phalanx IV-I	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.43	Aug. 18, 2006	*Avimimus*	pedal phalanx	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.44	Aug. 18, 2006	*Avimimus*	cervical vertebra	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.45	Aug. 18, 2006	*Avimimus*	vertebra	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/64	PJC2006.46	Aug. 18, 2006	*Avimimus*	nasals	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/65	PJC2006.47	Aug. 18, 2006	*Avimimus*	distal end right? Astragalus + tibia	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.48	Aug. 18,	*Avimimus*	phalanx	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min

		2006							
MPC-D 102/66	PJC2006.49	Aug. 18, 2006	*Avimimus*	proximal end of right tibia	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/67	PJC2006.60	Aug. 19, 2006	*Avimimus*	distal end of tibia	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.61	Aug. 19, 2006	*Avimimus*	partial heads of limbbones	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.62	Aug. 19, 2006	*Avimimus*	pedal phalanx II-I	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.63	Aug. 19, 2006	*Avimimus*	distal end of metatarsal ? II	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.64	Aug. 19, 2006	*Avimimus*	? Pedal phalanx	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/68	PJC2006.65	Aug. 19, 2006	*Avimimus*	distal end of right tibia	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/69	PJC2006.66	Aug. 19, 2006	*Avimimus*	pedal phalanx IV-4	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.67	Aug. 19, 2006	*Avimimus*	pedal phalanx	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.68	Aug. 19, 2006	*Avimimus*	pedal phalanx III-3?	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.69	Aug. 19, 2006	*Avimimus*	left femur proximal end	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.70	Aug. 19, 2006	*Avimimus*	manual phalanx	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/70	PJC2006.71	Aug. 19, 2006	*Avimimus*	distal end of both pubes	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.72	Aug. 19, 2006	*Avimimus*	proximal end of metatarsal II	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.73	Aug. 19, 2006	*Avimimus*	sacral centrum	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.74	Aug. 19, 2006	*Avimimus*	distal end of metatarsal ? II	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.75	Aug. 19, 2006	*Avimimus*	distal end metatarsal III	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.76	Aug. 19, 2006	*Avimimus*	manual phalanx	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.77	Aug. 19, 2006	*Avimimus*	distal end of metatarsal IV two of them	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.78	Aug. 19, 2006	*Avimimus*	pedal phalanx proximal	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.79	Aug. 19, 2006	*Avimimus*	phalanx	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.80	Aug. 19, 2006	*Avimimus*	pedal ungual III-4	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min

	PJC2006.81	Aug. 19, 2006	*Avimimus*	?radius	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.82	Aug. 19, 2006	*Avimimus*	pedal phalanx	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.83	Aug. 19, 2006	*Avimimus*	femur, left distal end	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/71	PJC2006.84	Aug. 19, 2006	*Avimimus*	metatarsal III	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.85	Aug. 19, 2006	*Avimimus*	head of femur	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.86	Aug. 19, 2006	*Avimimus*	proximal tibia right	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/72	PJC2006.87	Aug. 19, 2006	*Avimimus*	proximal tibia right	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/73	PJC2006.88	Aug. 19, 2006	*Avimimus*	pubis shaft	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.89	Aug. 19, 2006	*Avimimus*	? Radius	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.90	Aug. 19, 2006	*Avimimus*	pedal ungual	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.91	Aug. 19, 2006	*Avimimus*	pedal phalanx	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.92	Aug. 19, 2006	*Avimimus*	tarsal	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
	PJC2006.93	Aug. 19, 2006	*Avimimus*	rib	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/74	PJC2006.94	Aug. 19, 2006	*Avimimus*	tibia + fragments in a small plastic bag	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/75	PJC2006.95	Aug. 19, 2006	*Avimimus*	proximal end of metatarsal	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/76	PJC2006.96	Aug. 19, 2006	*Avimimus*	metatarsals II & IV	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/77	PJC2006.97	Aug. 19, 2006	*Avimimus*	metatarsal	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/78	PJC2006.98	Aug. 19, 2006	*Avimimus*	metatarsal	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/79	PJC2006.99	Aug. 19, 2006	*Avimimus*	distal end of metatarsal IV	Crew	Nemegt	Nemegt	43deg 28.891min	101deg 4.093min
MPC-D 102/80	PJC2007.002	2007-08-17	*avimimid*	fused metatarsals	Susan Kagan	West Sayr	Nemegt Fm	43.29.968	101.02.563
	PJC2007.023	2007-08-17	*avimimid*	pedal phalanx	Nick Longrich		Nemegt Fm	43.30.004	101.03.045
	PJC2007.023	2007-08-18	*avimimid*	miscellaneous elements	Nick Longrich	Eastern Sayr	Barun Goyot Fm	43.29.780	101.03.792
	PJC2007.100	2007-08-	*Avimimus*	fibula	Victoria Arbour	avimimid	Nemegt	43.28.891	101.04.093

		21				bonebed	Fm		
	PJC2007.101	2007-08-21	*Avimimus*	fibula	Victoria Arbour	avimimid bonebed	Nemegt Fm	43.28.891	101.04.093
MPC-D 102/81	PJC2007.102	2007-08-21	*Avimimus*	partial skull	Crew	avimimid bonebed	Nemegt fm		
	PJC2007.103	2007-08-21	*Avimimus*	pedal ungual	Michael Ryan	avimimid bonebed	Nemegt Fm	43.28.891	101.04.093
MPC-D 102/82	PJC2007.108	2007-08-19	*Avimimus*	third metatarsal	crew	avimimid bonebed	Nemegt Fm	43.28.891	101.04.093
	PJC2007.109	2007-08-19	*Avimimus*	vertebral fragments, not necessarily from same vertebra	crew	avimimid bonebed	Nemegt Fm	43.28.891	101.04.093
	PJC2007.111	2007-08-19	*Avimimus*	tibia	Ito Yoshio	Western Sayr	Nemegt Fm	no coordinates	no coordinates
MPC-D 102/83	PJC2007.112	2007-08-21	*Avimimus*	tibia (right)	Ito Yoshio	avimimid bonebed	Nemegt Fm	43.28.891	101.04.093
MPC-D 102/84	PJC2007.115	2007-08-21	*Avimimus*	tibia	crew	avimimid bonebed	Nemegt Fm	43.28.891	101.04.093
	PJC2007.116	2007-08-21	*Avimimus*	fibula	crew	avimimid bonebed	Nemegt Fm	43.28.891	101.04.093
MPC-D 102/106	PJC2007.117	2007-08-21	*Avimimus*	metatarsal	crew	avimimid bonebed	Nemegt Fm	43.28.891	101.04.093
	PJC2007.61	2007-08-19	*Avimimus*	phalanx	Astrid Schelde	avimimid bonebed	Nemegt Fm	43.28.891	101.04.093
	PJC2007.62	2007-08-19	*Avimimus*	rib	crew	avimimid bonebed	Nemegt Fm	43.28.891	101.04.093
	PJC2007.63	2007-08-19	*Avimimus*	centrum	Clive Coy	avimimid bonebed	Nemegt Fm	43.28.891	101.04.093
	PJC2007.64	2007-08-19	*Avimimus*	caudal vertebra	Clive Coy	avimimid bonebed	Nemegt Fm	43.28.891	101.04.093
MPC-D 102/85	PJC2007.65	2007-08-19	*Avimimus*	metatarsal	crew	avimimid bonebed	Nemegt Fm	43.28.891	101.04.093
MPC-D 102/86	PJC2007.66	2007-08-19	*Avimimus*	2 metatarsals	crew	avimimid bonebed	Nemegt Fm	43.28.891	101.04.093
MPC-D 102/87	PJC2007.67	2007-08-19	*Avimimus*	metatarsal	crew	avimimid bonebed	Nemegt Fm	43.28.891	101.04.093
	PJC2007.68	2007-08-19	*Avimimus*	limb element fragment	crew	avimimid bonebed	Nemegt Fm	43.28.891	101.04.093
MPC-D 102/88	PJC2007.69	2007-08-19	*Avimimus*	metatarsal	crew	avimimid bonebed	Nemegt Fm	43.28.891	101.04.093
MPC-D 102/89	PJC2007.70	2007-08-19	*Avimimus*	metatarsal	Julia Sankey	avimimid bonebed	Nemegt Fm	43.28.891	101.04.093
MPC-D 102/90	PJC2007.71	2007-08-19	*Avimimus*	tibia	crew	avimimid bonebed	Nemegt Fm	43.28.891	101.04.093
MPC-D	PJC2007.72	2007-08-	*Avimimus*	metatarsal III	crew	avimimid	Nemegt	43.28.891	101.04.093

102/91		19				bonebed	Fm		
MPC-D 102/92	PJC2007.73	2007-08-19	*Avimimus*	tibia plus fibula, astragalus, calcaneum	Astrid Schelde	avimimid bonebed	Nemegt Fm	43.28.891	101.04.093
MPC-D 102/93	PJC2007.74	2007-08-19	*Avimimus*	metatarsal	crew	avimimid bonebed	Nemegt Fm	43.28.891	101.04.093
MPC-D 102/94	PJC2007.86	2007-08-19	*Avimimus*	right tibia	Michael Ryan	avimimid bonebed	Nemegt Fm	43.28.891	101.04.093
MPC-D 102/95	PJC2007.87	2007-08-21	*Avimimus*	metatarsal	crew	avimimid bonebed	Nemegt Fm	43.28.891	101.04.093
MPC-D 102/105	PJC2007.88	2007-08-21	*Avimimus*	tibia	crew	avimimid bonebed	Nemegt Fm	43.28.891	101.04.093
MPC-D 102/96	PJC2007.89	2007-08-21	*Avimimus*	fused metatarsals 2 and 4	Astrid Schelde	avimimid bonebed	Nemegt Fm	43.28.891	101.04.093
	PJC2007.90	2007-08-21	*Avimimus*	fibula	Astrid Schelde	avimimid bonebed	Nemegt Fm	43.28.891	101.04.093
	PJC2007.92	2007-08-21	*Avimimus*	femur	Ito Yoshio	avimimid bonebed	Nemegt Fm	43.28.891	101.04.093
MPC-D 102/97	PJC2007.93	2007-08-21	*Avimimus*	metatarsal	Ito Yoshio	avimimid bonebed	Nemegt Fm	43.28.891	101.04.093
MPC-D 102/98	PJC2007.98	2007-08-21	*Avimimus*	metatarsal	Michael Ryan	avimimid bonebed	Nemegt Fm	43.28.891	101.04.093
MPC-D 102/99	PJC2007.99	2007-08-21	*Avimimus*	metatarsal	Ito Yoshio	avimimid bonebed	Nemegt Fm	43.28.891	101.04.093

Table S2: Skeletal representation at the *Avimimus* bonebed, calculated separately for an individual with unfused compound elements (above the break) and fused compound elements (below the break). Abbreviations: FE-TI-FIB: Femora, tibiae, fibulae; MTT-TARS: Metatarsals and tarsals; PELVIS-SACR: Pelvic elements and sacral vertebrae; HU-RAD-UL-CAR-MTC: forelimb elements including humeri, radii, ulnae, carpals and metacarpals; SCAP-COR: Pectoral girdle elements including scapulae, coracoids, sternals, and furculae.

Element category	**FE-TI-FIB**	**MTT-TARS**	**DENTARIES**	**PELVIS-SACR**	**PHALANGES**	**CRANIAL**	**VERTEBRAE**	**RIBS**	**HU-RAD-UL-CAR-MTC**	**SCAP-COR**		**TOTALS**
Collected	55	68	2	6	28	5	11	7	4	0		**186**
In one individual	*8*	*12*	*2*	*7*	*46*	*53*	*50*	*44*	*18*	*6*		**246**
Expected in an MNI of 18 individuals	144	216	36	126	828	954	900	792	324	108		**4428**
Skeletal Representation at AVBB (%)	**38%**	**31%**	**6%**	**5%**	**3%**	**1%**	**1%**	**1%**	**1%**	**0%**		**4%**
Over-, Average-, Under-representation*	**Over**	**Over**	**Over**	**Over**	**Under**	**Under**	**Under**	**Under**	**Under**	**Under**		
In one fused individual	6	4	2	3	46	32	50	44	8	3		**198**
Expected in an MNI of 18 individuals	108	72	36	54	828	576	900	792	144	54		**3564**
Skeletal Representation at AVBB (%)	**51%**	**94%**	**6%**	**11%**	**3%**	**1%**	**1%**	**1%**	**3%**	**0%**		**5%**
Over-, Average-, Under-representation*	**Over**	**Over**	**Over**	**Over**	**Under**	**Under**	**Under**	**Under**	**Under**	**Under**		

Table S3: List of known bonebed occurrences of dinosaur taxa by family.

Family	Taxon	Locality	Interpretation	Age	Reference
Ceratopsidae	*Centrosaurus apertus*	Dinosaur Provincial Park, AB	Monodominant bonebed: flood-induced	**Late Cretaceous**	Ryan et al. 2001
	Centrosaurus brinkmani	Dinosaur Provincial Park, AB	Monodominant bonebed	**Late Cretaceous**	Ryan and Russell 2005
	Styracosaurus albertensis	Dinosaur Provincial Park, AB	Monodominant bonebed	**Late Cretaceous**	
	Einiosaurus procurvicornis	Two Medicine Formation, Montana	Monodominant bonebed: drought assemblage	**Late Cretaceous**	Sampson 1995
	Pachyrhinosaurus n. sp.	Pipestone Creek, AB	Monodominant bonebed	**Late Cretaceous**	Fanti et al. 2015
	Medusaceratops			**Late Cretaceous**	
	Agujaceratops mariscalensis	Big Bend, Texas	Monodominant bonebed	**Late Cretaceous**	Lehman 1989
Protoceratopsidae	*Protoceratops andrewsi*	Tugriken Shireh, Mongolia	Clutch of hatchlings	**Late Cretaceous**	You et al. 2004
Leptoceratopsidae	*Prenoceratops peiganensis*	Two Medicine Formation, Montana	Monodominant bonebed	**Late Cretaceous**	Chinnery 2004
Psittacosauridae	*Psittacosaurus*		Parent protecting brood	**Late Cretaceous**	Meng et al. 2004
Hadrosauridae	*Maiasaura peeblesorum*	Montana	Monodominant bonebed	**Late Cretaceous**	Varricchio and Horner, 1993
	Prosaurolophus blackfeetensis	Judith River Fm., Montana	Monodominant bonebed: drought induced	**Late Cretaceous**	Rogers, 1990;
	Brachylophosaurus canadensis	Judith River Fm., Montana	Monodominant bonebed	**Late Cretaceous**	Prieto-Marquez, 2005
	Edmontosaurus annectens	South Dakota	Monodominant bonebed	**Late Cretaceous**	Derstler, 1994
	Edmontosaurus regalis	Edmonton, Alberta	Monodominant bonebed	**Late Cretaceous**	Bell and Campione, 2015
	Edmontosaurus sp. (Alaska)	Colville River, Alaska	Monodominant bonebed	**Late Cretaceous**	
	Hypacrosaurus altispinus			**Late Cretaceous**	Bramble and Currie, 2015
	Charonosaurus jiayinensis	Heilongjang, China		**Late Cretaceous**	Godefroit et al., 2000
	Bactrosaurus	Iren Dabasu, Mongolia			Godefroit, 1998
	Tenontosaurus tilletti		Monodominant bonebed	**Early Cretaceous**	Forster 1995
Ankylosauridae	*Pinacosaurus mephistocephalus*	Bayan Mandahu, Inner Mongolia	Family group overwhelmed by sandstorm	**Late Cretaceous**	Jerzykiewicz et al., 1993
	Pinacosaurus grangeri	Aleg Teg, Mongolia	Drought assemblage	**Late Cretaceous**	
Thescelosauridae	*Oryctodromeus cubicularis*	Blackleaf Formation, MT	Family group in burrow	**Late Cretaceous**	Varricchio et al., 2006

	Unnamed taxon	Proctor Lake, Texas			Winkler and Murry, 1989
Ornithischia indet.	*Laquintasaura venezuelae*	La Quinta Fm., Venezuela	Monodominant	**Early Jurassic**	Barrett et al. 2014
Prosauropoda	*Sellosaurus*				Hungerbühler, 1998
	Plateosaurus		Monodominant	**Late Triassic**	Sander, 1992
Titanosauridae	*Alamosaurus sanjuanensis*	Big Bend, Texas	Monodominant bonebed: drought assemblage?	**Late Cretaceous**	Fiorillo and Montgomery 2001
		Jones Ranch, Texas		**Early Cretaceous**	Winkler et al., 1997
Diplodocidae	*?Diplodocus*	Howe quarry	Monodominant bonebed	**Early Cretaceous**	
	Patagosaurus fariasi	Chubut, Argentina	Monodominant bonebed	**Jurassic**	Coria, 1994
Coelophysoidea	*Coelophysis bauri*	Ghost Ranch, New Mexico	Drought assemblage	**Late Triassic**	Colbert, 1989
	Coelophysis rhodesiensis	Rhodesia		**Early Jurassic**	Raath 1990
	Coelophysis kayentakatae, C. sp.	New Mexico		**Early Jurassic**	Rowe, 1989
Monolophosaur-idae	*Guanlong wucaii*	China	Monodominant	**Middle Jurassic**	Xu et al., 2006
Carcharodonto-sauridae	*Mapusaurus roseae*	Argentina	Monodominant	**Late Cretaceous**	Coria and Currie, 2006
Allosauridae	*Allosaurus fragilis*	Cleveland-Lloyd Quarry, UT	Drought assemblage	**Late Jurassic**	Madsen, 1976; Gates, 2005
Tyrannosauridae	*Daspletosaurus* sp.	Montana		**Late Cretaceous**	Currie et al., 2005
	Albertosaurus sarcophagus	Dry Island Buffalo Jump Provincial Park, Alberta	Monodominant bonebed. Pack?	**Late Cretaceous**	Currie, 1998
Ornithomimidae	*Sinornithomimus dongi*	Ulan Suhai, Inner Mongolia	Monospecific bonebed: social assemblage	**Late Cretaceous**	Kobayashi et al., 1999
Therizinosauroidea	*Falcarius utahensis*		Monodominant bonebed	**Early Cretaceous**	Kirkland et al. 2005
Dromaeosauridae	*Deinonychus antirrhopus*	Cloverly Formation, MT		**Early Cretaceous**	Ostrom, 1969; Maxwell and Ostrom, 1995
Avimimidae	*Avimimus. portentosus*	Nemegt Basin, Mongolia	Monodominant bonebed, flood assemblage?	**Late Cretaceous**	This paper

Figure S1: Graphs of skeletal representation of elements from the *Avimimus* bonebed, for a) an unfused skeleton; and b) a fused skeleton. Line represents average skeletal representation; values above the line indicate overrepresentation, values below indicate underrepresentation.

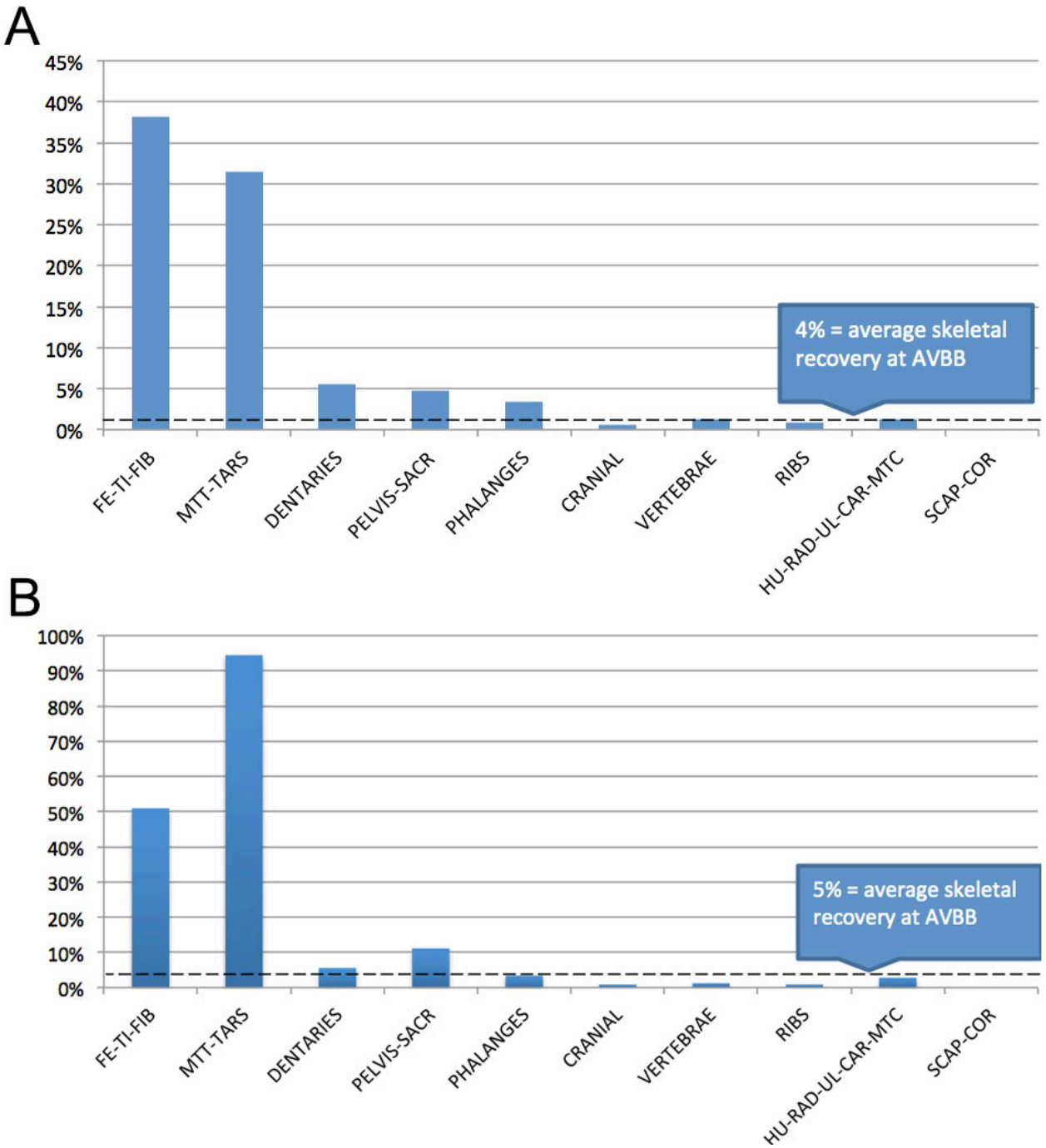

Figure S2: Articulated distal caudal vertebrae recovered from the *Avimimus* bonebed in 2016. Photograph by GFF (A) of caudal vertebrae as uncovered in the field. Outline (B) of caudal vertebrae, with each vertebra in a different colour. Abbreviations: **hum**, humerus.

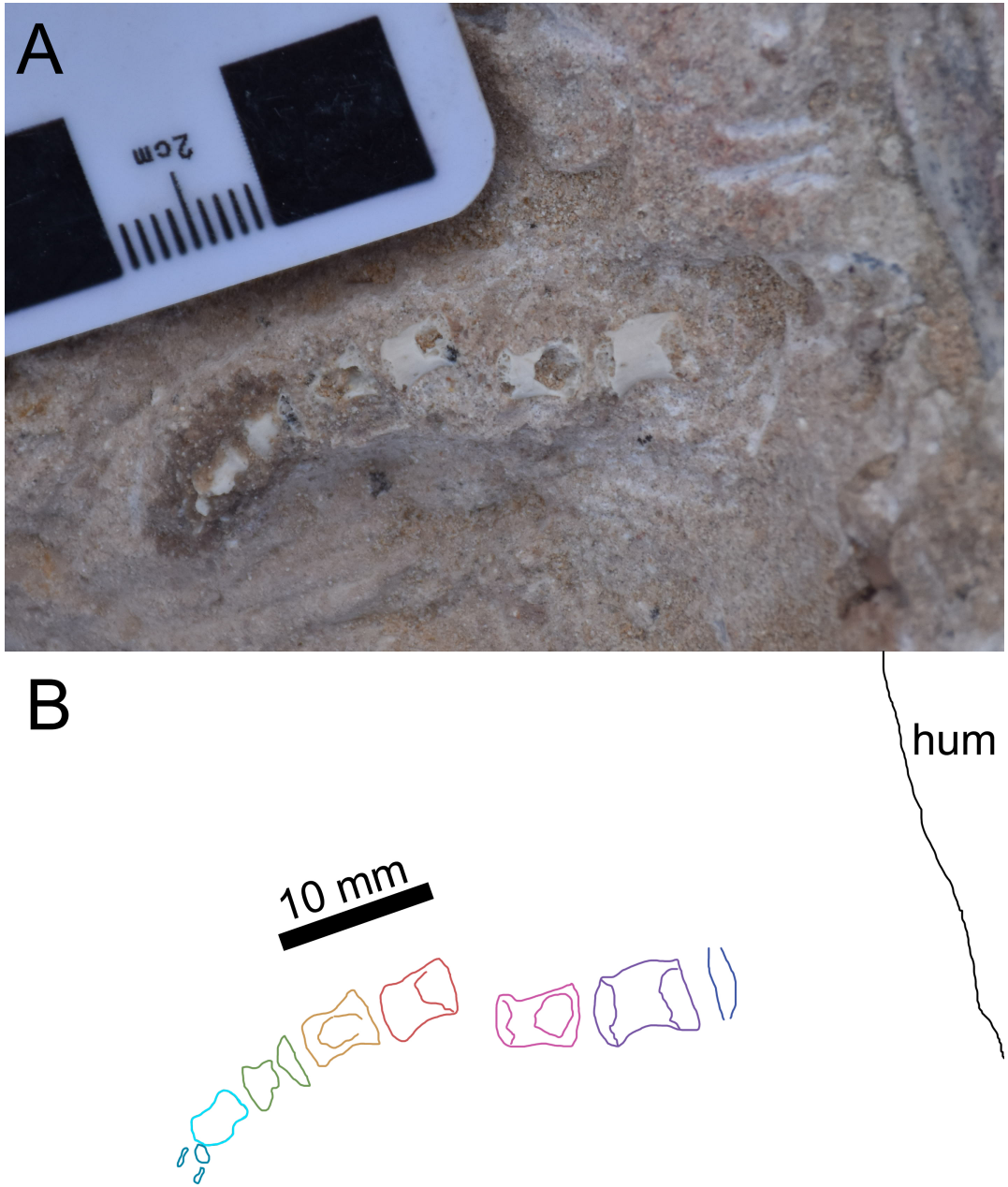

Figure S3: Articulated tibia and fibula recovered from the *Avimimus* bonebed. Note curved distal portion of fibula, and distal end of fibula fused to tibiatarsus (Arrow). Photograph by GFF.

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