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# Supplementary material: A critical re-evaluation of the hindlimb myology of moa (Aves: Dinornithiformes)

## APPENDIX 1

TABLE 1. The exemplar specimens examined in this study. For each specimen, the collection registration number, taxonomic identity and provenance are listed. Additionally, those specimens that have been genetically identified are indicated. CM refers to the Canterbury Museum collections and QMF refers to the Queensland Museum collections. Superscripts refer to the following studies: 1, Bunce *et al.* (2009); 2, Allentoft *et al.* (2012); 3, Rawlence *et al.* (2012a); 4, Allentoft *et al.* (2014).

Registration Number	Taxon	Provenance	Genetically identified?
CM Av8300	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8302	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>4</sup>
CM Av8305	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8306	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8308	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>4</sup>
CM Av8309	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8310	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>4</sup>
CM Av8311	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8312	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>4</sup>
CM Av8313	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8314	<i>E. crassus</i>	Pyramid Valley Swamp	
CM Av8317	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8321	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>4</sup>
CM Av8322	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8324	<i>E. crassus</i>	Pyramid Valley Swamp	
CM Av8326	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8328	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>4</sup>
CM Av8331	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8333	<i>E. crassus</i>	Pyramid Valley Swamp	
CM Av8334	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8337	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>4</sup>
CM Av8340	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>4</sup>
CM Av8342	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>

Registration Number	Taxon	Provenance	Genetically identified?
CM Av8344	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8346	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8348	<i>P. elephantopus</i>	Pyramid Valley Swamp	Yes <sup>4</sup>
CM Av8349	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>4</sup>
CM Av8352	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8354	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>4</sup>
CM Av8355	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>1</sup>
CM Av8356	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8357	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>4</sup>
CM Av8360	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8363	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8364	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>4</sup>
CM Av8365	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>4</sup>
CM Av8366	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8367	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8368	<i>E. crassus</i>	Pyramid Valley Swamp	
CM Av8369	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>4</sup>
CM Av8372	<i>E. curtus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8373	<i>E. curtus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8374	<i>E. curtus</i>	Pyramid Valley Swamp	Yes <sup>4</sup>
CM Av8375	<i>E. curtus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8378	<i>E. curtus</i>	Pyramid Valley Swamp	Yes <sup>1</sup>
CM Av8381	<i>P. elephantopus</i>	Pyramid Valley Swamp	Yes <sup>4</sup>
CM Av8382	<i>P. elephantopus</i>	Pyramid Valley Swamp	Yes <sup>4</sup>
CM Av8383	<i>P. elephantopus</i>	Pyramid Valley Swamp	Yes <sup>3</sup>
CM Av8385	<i>P. elephantopus</i>	Pyramid Valley Swamp	Yes <sup>4</sup>
CM Av8386	<i>P. elephantopus</i>	Pyramid Valley Swamp	Yes <sup>4</sup>
CM Av8387	<i>P. elephantopus</i>	Pyramid Valley Swamp	Yes <sup>4</sup>
CM Av8388	<i>P. elephantopus</i>	Pyramid Valley Swamp	Yes <sup>3</sup>
CM Av8389	<i>P. elephantopus</i>	Pyramid Valley Swamp	Yes <sup>3</sup>
CM Av8415	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>1</sup>
CM Av8416	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8417	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8418	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>1</sup>
CM Av8419	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>

## Appendix 1: Hindlimb myology in moa

Registration Number	Taxon	Provenance	Genetically identified?
CM Av8421	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8422	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8423	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8461	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8462	<i>D. robustus</i>	Pyramid Valley Swamp	
CM Av8464	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>4</sup>
CM Av8465	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8466	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8467	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8468	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8469	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8470	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8473	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8474	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8477	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8479	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8481	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8482	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8484	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8486	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8487	<i>D. robustus</i>	Pyramid Valley Swamp	
CM Av8488	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8490	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8491	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8492	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8493	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8494	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8495	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8505	<i>M. didinus</i>	Takahe Valley, Southland Land District	
CM Av8506	<i>M. didinus</i>	Takahe Valley, Southland Land District	
CM Av8507	<i>M. didinus</i>	Takahe Valley, Southland Land District	
CM Av8513	<i>M. didinus</i>	Takahe Valley, Southland Land District	
CM Av8546	<i>P. elephantopus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av8547	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av8558	<i>P. elephantopus</i>	Kapua Swamp, Waimate, Canterbury District	

Registration Number	Taxon	Provenance	Genetically identified?
CM Av8559	<i>E. crassus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av8566	<i>P. elephantopus</i>	Enfield Swamp, Oamaru	
CM Av8588	<i>E. crassus</i>	Enfield Swamp, Oamaru	
CM Av8604	<i>E. crassus</i>	Enfield Swamp, Oamaru	
CM Av8605	<i>E. curtus</i>	Glenmark Swamp	
CM Av8607	<i>E. curtus</i>	Glenmark Swamp	
CM Av8611	<i>E. crassus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av8613	<i>P. elephantopus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av8622	<i>P. elephantopus</i>	Pyramid Valley Swamp	Yes <sup>4</sup>
CM Av8625	<i>P. elephantopus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av8626	<i>P. elephantopus</i>	Enfield Swamp, Oamaru	
CM Av8627	<i>P. elephantopus</i>	Enfield Swamp, Oamaru	
CM Av8628	<i>E. crassus</i>	Enfield Swamp, Oamaru	
CM Av8633	<i>E. curtus</i>	Pyramid Valley Swamp	
CM Av8648	<i>P. elephantopus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av8649	<i>P. elephantopus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av8650	<i>P. elephantopus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av8651	<i>P. elephantopus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av8652	<i>P. elephantopus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av8653	<i>P. elephantopus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av8654	<i>P. elephantopus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av8655	<i>P. elephantopus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av8656	<i>P. elephantopus</i>	Enfield Swamp, Oamaru	
CM Av8658	<i>P. elephantopus</i>	Enfield Swamp, Oamaru	
CM Av8660	<i>P. elephantopus</i>	Enfield Swamp, Oamaru	
CM Av8716	<i>P. elephantopus</i>	Pyramid Valley Swamp	Yes <sup>4</sup>
CM Av8724	<i>E. crassus</i>	Enfield Swamp, Oamaru	
CM Av8750	<i>E. crassus</i>	Enfield Swamp, Oamaru	
CM Av8751	<i>E. crassus</i>	Enfield Swamp, Oamaru	
CM Av8752	<i>E. crassus</i>	Enfield Swamp, Oamaru	
CM Av8781	<i>D. robustus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av8805	<i>D. robustus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av8806	<i>D. robustus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av8807	<i>D. robustus</i>	Enfield Swamp, Oamaru	
CM Av8824	<i>D. robustus</i>	Kapua Swamp, Waimate, Canterbury District	

Appendix 1: Hindlimb myology in moa

Registration Number	Taxon	Provenance	Genetically identified?
CM Av8827	<i>D. robustus</i>	Enfield Swamp, Oamaru	
CM Av8833	<i>E. crassus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av8837	<i>E. crassus</i>	Enfield Swamp, Oamaru	
CM Av8871	<i>D. robustus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av8873	<i>E. curtus</i>	Pyramid Valley Swamp	
CM Av8876	<i>E. crassus</i>	Enfield Swamp, Oamaru	
CM Av8910	<i>P. elephantopus</i>	Enfield Swamp, Oamaru	
CM Av8911	<i>P. elephantopus</i>	Enfield Swamp, Oamaru	
CM Av8918	<i>P. elephantopus</i>	Hamilton's Swamp	
CM Av8928	<i>P. elephantopus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av8929	<i>P. elephantopus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av8931	<i>E. crassus</i>	Pyramid Valley Swamp	
CM Av8932	<i>P. elephantopus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av8934	<i>P. elephantopus</i>	Enfield Swamp, Oamaru	
CM Av8936	<i>P. elephantopus</i>	Enfield Swamp, Oamaru	
CM Av8937	<i>P. elephantopus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av8938	<i>P. elephantopus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av8939	<i>P. elephantopus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av8940	<i>E. curtus</i>	Enfield Swamp, Oamaru	
CM Av8941	<i>P. elephantopus</i>	Enfield Swamp, Oamaru	
CM Av8944	<i>P. elephantopus</i>	Kapua Swamp, Waimate, Canterbury District	Yes <sup>3</sup>
CM Av8951	<i>P. elephantopus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av8952	<i>P. elephantopus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av8953	<i>P. elephantopus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av8955	<i>P. elephantopus</i>	Enfield Swamp, Oamaru	Yes <sup>3</sup>
CM Av8956	<i>P. elephantopus</i>	Enfield Swamp, Oamaru	
CM Av8957	<i>P. elephantopus</i>	Enfield Swamp, Oamaru	
CM Av8977	<i>D. robustus</i>	Glenmark Swamp	
CM Av8986	<i>D. robustus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av8993	<i>D. robustus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av8995	<i>D. robustus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av8999	<i>D. robustus</i>	Enfield Swamp, Oamaru	
CM Av9009	<i>E. crassus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9010	<i>D. robustus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9011	<i>D. robustus</i>	Kapua Swamp, Waimate, Canterbury District	

Registration Number	Taxon	Provenance	Genetically identified?
CM Av9018	<i>D. robustus</i>	Enfield Swamp, Oamaru	
CM Av9023	<i>D. robustus</i>	Enfield Swamp, Oamaru	
CM Av9026	<i>D. robustus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9026	<i>E. crassus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9031	<i>D. robustus</i>	Enfield Swamp, Oamaru	
CM Av9032	<i>D. robustus</i>	Enfield Swamp, Oamaru	
CM Av9034	<i>D. robustus</i>	Enfield Swamp, Oamaru	
CM Av9035	<i>D. robustus</i>	Enfield Swamp, Oamaru	
CM Av9036	<i>D. robustus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9037	<i>D. robustus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9040	<i>D. robustus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9043	<i>D. robustus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9046	<i>D. robustus</i>	Enfield Swamp, Oamaru	
CM Av9049	<i>D. robustus</i>	Enfield Swamp, Oamaru	
CM Av9060	<i>P. elephantopus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9073	<i>E. crassus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9075	<i>E. crassus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9076	<i>E. crassus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9077	<i>E. crassus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9078	<i>E. crassus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9080	<i>E. crassus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9081	<i>E. crassus</i>	Glenmark Swamp	
CM Av9110	<i>E. crassus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9127	<i>E. crassus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9130	<i>E. crassus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9132	<i>E. crassus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9135	<i>E. crassus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9137	<i>P. elephantopus</i>	Enfield Swamp, Oamaru	
CM Av9138	<i>P. elephantopus</i>	Enfield Swamp, Oamaru	
CM Av9140	<i>P. elephantopus</i>	Enfield Swamp, Oamaru	
CM Av9144	<i>E. crassus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9145	<i>E. crassus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9147	<i>E. crassus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9154	<i>E. crassus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9160	<i>E. crassus</i>	Enfield Swamp, Oamaru	

Appendix 1: Hindlimb myology in moa

Registration Number	Taxon	Provenance	Genetically identified?
CM Av9167	<i>E. curtus</i>	Enfield Swamp, Oamaru	
CM Av9168	<i>E. curtus</i>	Enfield Swamp, Oamaru	
CM Av9169	<i>P. elephantopus</i>	Enfield Swamp, Oamaru	
CM Av9171	<i>P. elephantopus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9172	<i>P. elephantopus</i>	Kapua Swamp, Waimate, Canterbury District	Yes <sup>3</sup>
CM Av9173	<i>P. elephantopus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9177	<i>E. crassus</i>	Enfield Swamp, Oamaru	
CM Av9178	<i>E. crassus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9179	<i>E. crassus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9181	<i>E. crassus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9182	<i>E. crassus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9183	<i>E. crassus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9190	<i>E. crassus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9194	<i>E. curtus</i>	Enfield Swamp, Oamaru	
CM Av9195	<i>E. crassus</i>	Enfield Swamp, Oamaru	
CM Av9196	<i>E. crassus</i>	Enfield Swamp, Oamaru	
CM Av9209	<i>P. elephantopus</i>	Enfield Swamp, Oamaru	
CM Av9214	<i>E. crassus</i>	Enfield Swamp, Oamaru	
CM Av9216	<i>E. crassus</i>	Enfield Swamp, Oamaru	
CM Av9217	<i>E. crassus</i>	Enfield Swamp, Oamaru	
CM Av9218	<i>E. crassus</i>	Enfield Swamp, Oamaru	
CM Av9219	<i>P. elephantopus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9220	<i>P. elephantopus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9223	<i>E. crassus</i>	Enfield Swamp, Oamaru	
CM Av9314	<i>D. robustus</i>	Pyramid Valley Swamp	
CM Av9361	<i>P. elephantopus</i>	Enfield Swamp, Oamaru	
CM Av9511	<i>D. robustus</i>	Glenmark Swamp	
CM Av9529	<i>D. robustus</i>	Glenmark Swamp	
CM Av9530	<i>P. elephantopus</i>	Glenmark Swamp	
CM Av9531	<i>D. robustus</i>	Glenmark Swamp	
CM Av9532	<i>D. robustus</i>	Glenmark Swamp	Yes <sup>4</sup>
CM Av9536	<i>P. elephantopus</i>	Glenmark Swamp	
CM Av9543	<i>D. robustus</i>	Glenmark Swamp	Yes <sup>4</sup>
CM Av9544	<i>E. crassus</i>	Enfield Swamp, Oamaru	
CM Av9641	<i>E. crassus</i>	Glenmark Swamp	

Registration Number	Taxon	Provenance	Genetically identified?
CM Av9643	<i>P. elephantopus</i>	Kapua Swamp, Waimate, Canterbury District	
CM Av9844	<i>E. crassus</i>	Glenmark Swamp	
CM Av13461	<i>D. robustus</i>	Sumner, Canterbury Region	
CM Av13466	<i>P. elephantopus</i>	Limestone cave, Herbert Ecological District	
CM Av13773	<i>E. curtus</i>	Pyramid Valley Swamp	Yes <sup>1</sup>
CM Av13775	<i>E. crassus</i>	Pyramid Valley Swamp	
CM Av13776	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av13778	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av13779	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av13900	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av14049	<i>D. robustus</i>	Pyramid Valley Swamp	
CM Av14448	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av14449	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av14451	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av14549	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av15025	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av15027	<i>D. robustus</i>	Pyramid Valley Swamp	
CM Av15028	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av15029	<i>P. elephantopus</i>	Pyramid Valley Swamp	Yes <sup>4</sup>
CM Av15030	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av15031	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>4</sup>
CM Av15032	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>4</sup>
CM Av15035	<i>E. curtus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av15676	<i>E. curtus</i>	Meikle's Cutting, Main North Rd, Canterbury	
CM Av16591	<i>A. didinus</i>	"Cave 1", Heaphy River, Heaphy Ecological District, South Island	
CM Av16608	<i>A. didinus</i>	"Cave 1", Heaphy River, Heaphy Ecological District, South Island	
CM Av16687	<i>A. didinus</i>	"Fissure 1", Canaan, Takaka	
CM Av16688	<i>A. didinus</i>	"Fissure 1", Canaan, Takaka	
CM Av17096	<i>P. elephantopus</i>	Benmore, Otago	
CM Av17287	<i>E. crassus</i>	Pyramid Valley Swamp	
CM Av17288	<i>E. crassus</i>	Glenmark Swamp	
CM Av17438	<i>D. robustus</i>	Pyramid Valley Swamp	
CM Av18017	<i>D. robustus</i>	Gouland Downs, West Coast of South Island	

Appendix 1: Hindlimb myology in moa

Registration Number	Taxon	Provenance	Genetically identified?
CM Av18931	<i>E. crassus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av19180	<i>D. robustus</i>	Nile River, West Coast of South Island	Yes <sup>4</sup>
CM Av19279	<i>P. elephantopus</i>	Albury Park, Canterbury Land District	
CM Av19300	<i>P. elephantopus</i>	Albury, South Canterbury	
CM Av19306	<i>P. elephantopus</i>	Albury Park, Canterbury Land District	
CM Av19319	<i>P. elephantopus</i>	Albury Park, Canterbury Land District	
CM Av19326	<i>P. elephantopus</i>	Albury Park, Canterbury Land District	
CM Av19403	<i>E. crassus</i>	Albury Park, Canterbury Land District	
CM Av19427	<i>P. elephantopus</i>	Albury, South Canterbury	
CM Av20115	<i>E. curtus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av20116	<i>E. curtus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av20117	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av20118	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av20589	<i>D. robustus</i>	Swamp at Glendhu Bay, Lake Wanaka, Otago	
CM Av20591	<i>D. robustus</i>	Swamp at Glendhu Bay, Lake Wanaka, Otago	
CM Av20592	<i>D. robustus</i>	Swamp at Glendhu Bay, Lake Wanaka, Otago	
CM Av20607	<i>D. robustus</i>	Pukemata, Moeraki S146/10	
CM Av24962	<i>P. elephantopus</i>	Lancevale farm, Canterbury Land District	
CM Av25373	<i>D. robustus</i>	Glencrieff, Howarden, North Canterbury	Yes <sup>4</sup>
CM Av28434	<i>D. robustus</i>	Pyramid Valley Swamp	Yes <sup>2</sup>
CM Av29451	<i>P. elephantopus</i>	Waihaorranga, South Canterbury	
CM Av30890	<i>D. robustus</i>	Swamp at Glendhu Bay, Lake Wanaka, Otago	
CM Av33889	<i>D. robustus</i>	Reefton, Westland, South Island	
CM Av36618	<i>D. robustus</i>	Limestone Country, Greymouth, West Coast	
CM Av41210	<i>D. robustus</i>	Rossler, Waikari, North Canterbury	
CM Av42151	<i>P. elephantopus</i>	Glencrieff, Howarden, North Canterbury	
CM Av42161	<i>P. elephantopus</i>	Glencrieff, Howarden, North Canterbury	
CM Av42186	<i>P. elephantopus</i>	Glencrieff, Howarden, North Canterbury	
CM Av42194	<i>P. elephantopus</i>	Glencrieff, Howarden, North Canterbury	
CM Av44084	<i>D. robustus</i>	Rossler, Waikari, North Canterbury	
CM Av44136	<i>D. robustus</i>	Rossler, Waikari, North Canterbury	
CM SB55	<i>D. robustus</i>	Cheviot Swamp, Canterbury Land District	
CM SB56	<i>D. robustus</i>	Cheviot Swamp, Canterbury Land District	
CM SB67	<i>E. crassus</i>	Cheviot Swamp, Canterbury Land District	
CM SB108	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	

Registration Number	Taxon	Provenance	Genetically identified?
CM SB110	<i>E. crassus</i>	Cheviot Swamp, Canterbury Land District	
CM SB115	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB128	<i>E. crassus</i>	Cheviot Swamp, Canterbury Land District	
CM SB129	<i>E. crassus</i>	Cheviot Swamp, Canterbury Land District	
CM SB131	<i>E. crassus</i>	Cheviot Swamp, Canterbury Land District	
CM SB132	<i>E. crassus</i>	Cheviot Swamp, Canterbury Land District	
CM SB133	<i>E. crassus</i>	Cheviot Swamp, Canterbury Land District	
CM SB136	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB137	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB139	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB143	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	Yes <sup>3</sup>
CM SB144	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	Yes <sup>3</sup>
CM SB145	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB147	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB148	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB150	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB153	<i>E. crassus</i>	Cheviot Swamp, Canterbury Land District	
CM SB154	<i>E. crassus</i>	Cheviot Swamp, Canterbury Land District	
CM SB156	<i>E. crassus</i>	Cheviot Swamp, Canterbury Land District	
CM SB157	<i>E. crassus</i>	Cheviot Swamp, Canterbury Land District	
CM SB230	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB248	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB256	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB267	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB301	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	Yes <sup>3</sup>
CM SB302	<i>E. crassus</i>	Cheviot Swamp, Canterbury Land District	
CM SB307	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB308	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB313	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB314	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB337	<i>E. crassus</i>	Cheviot Swamp, Canterbury Land District	
CM SB338	<i>E. crassus</i>	Cheviot Swamp, Canterbury Land District	
CM SB350	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB351	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB353	<i>E. crassus</i>	Cheviot Swamp, Canterbury Land District	

Appendix 1: Hindlimb myology in moa

Registration Number	Taxon	Provenance	Genetically identified?
CM SB354	<i>E. crassus</i>	Cheviot Swamp, Canterbury Land District	
CM SB355	<i>E. crassus</i>	Cheviot Swamp, Canterbury Land District	
CM SB356	<i>E. crassus</i>	Cheviot Swamp, Canterbury Land District	
CM SB359	<i>E. crassus</i>	Cheviot Swamp, Canterbury Land District	
CM SB360	<i>E. crassus</i>	Cheviot Swamp, Canterbury Land District	
CM SB362	<i>E. crassus</i>	Cheviot Swamp, Canterbury Land District	
CM SB364	<i>E. crassus</i>	Cheviot Swamp, Canterbury Land District	
CM SB365	<i>E. crassus</i>	Cheviot Swamp, Canterbury Land District	
CM SB366	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB385	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB386	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB387	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB392	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB393	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB394	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB415	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB419	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB449	<i>E. crassus</i>	Cheviot Swamp, Canterbury Land District	
CM SB462	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB464	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB475	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB477	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB478	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB479	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB493	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB498	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
CM SB505	<i>E. crassus</i>	Cheviot Swamp, Canterbury Land District	
CM SB507	<i>E. crassus</i>	Cheviot Swamp, Canterbury Land District	
CM SB551	<i>P. elephantopus</i>	Cheviot Swamp, Canterbury Land District	
QMF 26	<i>A. didiformis</i>	Canterbury Region	
QMF 27	<i>E. crassus</i>	Kapua Swamp, Waimate, Canterbury District	
QMF 31	<i>D. robustus</i>	Canterbury Region	
QMF 32	<i>D. robustus</i>	Pyramid Valley Swamp	
QMF 33	<i>D. robustus</i>	Unknown locality, South Island	
QMF 38	<i>E. crassus</i>	Glenmark Swamp	

Registration Number	Taxon	Provenance	Genetically identified?
QMF 10530	<i>D. robustus</i>	Kaiapoi Swamp, Canterbury Region	
QMF 10564	<i>E. crassus</i>	Kaiapoi Swamp, Canterbury Region	
QMF 10572	<i>A. didiformis</i>	Unknown	
QMF 10575	<i>P. elephantopus</i>	Unknown	
QMF 10576	<i>P. elephantopus</i>	Unknown	
QMF 10577	<i>E. crassus</i>	Kaiapoi Swamp, Canterbury Region	
QMF 13109	<i>E. crassus</i>	Kapua Swamp, Waimate, Canterbury District	
QMF 13119	<i>E. curtus</i>	Nelson-Takaka Region, South Island	
QMF 13122	<i>E. crassus</i>	Kapua Swamp, Waimate, Canterbury District	
QMF 13126	<i>E. curtus</i>	Pyramid Valley Swamp	
QMF 13128	<i>M. didinus</i>	Limestone cave, unknown locality	
QMF 13129	<i>E. crassus</i>	Kapua Swamp, Waimate, Canterbury District	
QMF 13130	<i>E. curtus</i>	Nelson-Takaka Region, South Island	
QMF 13131	<i>E. curtus</i>	Nelson-Takaka Region, South Island	
QMF 13132	<i>E. curtus</i>	Pyramid Valley Swamp	
QMF 13134	<i>P. elephantopus</i>	Unknown locality, South Island	
QMF 13135	<i>A. didiformis</i>	Kapua Swamp, Waimate, Canterbury District	
QMF 13136	<i>E. curtus</i>	Pyramid Valley Swamp	
QMF 13137	<i>P. elephantopus</i>	Unknown locality, South Island	
QMF 13138	<i>E. curtus</i>	Pyramid Valley Swamp	
QMF 13141	<i>A. didiformis</i>	Kapua Swamp, Waimate, Canterbury District	
QMF 13142	<i>E. curtus</i>	Unknown locality, South Island	
QMF 13144	<i>P. elephantopus</i>	Unknown locality, South Island	
QMF 13145	<i>E. curtus</i>	Nelson-Takaka Region, South Island	
QMF 13146	<i>A. didiformis</i>	Unknown	
QMF 13149	<i>P. elephantopus</i>	Unknown locality, South Island	
QMF 13150	<i>P. elephantopus</i>	Unknown locality, South Island	
QMF 13157	<i>D. robustus</i>	Pyramid Valley Swamp	
QMF 13168	<i>A. didiformis</i>	Limestone cave, unknown locality	
QMF 13199	<i>E. curtus</i>	Pyramid Valley Swamp	
QMF 57579	<i>P. elephantopus</i>	Unknown locality, South Island	
QMF 57580	<i>P. elephantopus</i>	Unknown locality, South Island	