

HOW TO CITE:

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Table 1: Analysis of microsatellite markers per population indicating number of alleles (N_a), observed heterozygosity (H_o), expected heterozygosity (H_e), fixation index and Hardy–Weinberg equilibrium (HWE). Estimates of null allele occurrence and frequency per marker and population are shown as determined by MICROCHECKER (calculated using four algorithms: Oosterhout, Chakraborty, Brookfield 1 and Brookfield 2)³¹ and FreeNA³². Key: ns, not significant, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Population		Lut435	Lut453	Lut457	Lut604	Lut615	Lut701	Lut715	Lut782	Lut818	Lut832
Blesbok	Null present	yes	yes	yes	yes	yes	no	yes	yes	yes	yes
	Oosterhout	0.2663	0.2842	0.2052	0.2348	0.2486	0.1183	0.1728	0.2011	0.2962	0.1582
	Chakraborty	0.3913	0.4419	0.2796	0.3094	0.3443	0.1224	0.2143	0.25	0.4315	0.2065
	Brookfield 1	0.2528	0.2676	0.1981	0.183	0.236	0.096	0.1614	0.1702	0.2522	0.1478
	Brookfield 2	0.4197	0.6656	0.2967	0.5154	0.533	0.3737	0.5448	0.6705	0.4252	0.3423
	FreeNA	0.26209	0.27877	0.21508	0.18271	0.2419	0.07012	0.16478	0.16559	0.24548	0.16398
	HWE	***	**	**	**	ns	ns	ns	ns	**	*
	N_a	9	5	9	7	8	7	8	4	6	6
	H_o	0.333	0.250	0.462	0.300	0.500	0.636	0.545	0.286	0.250	0.500
	H_e	0.840	0.750	0.796	0.610	0.820	0.814	0.843	0.643	0.670	0.740
Crocodile	F	0.603	0.667	0.420	0.508	0.390	0.218	0.353	0.556	0.627	0.324
	Null present	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
	Oosterhout	0.2152	0.277	0.2893	0.2916	0.2567	0.3668	0.2578	0.4391	0.4305	0.3184
	Chakraborty	0.2784	0.3919	0.4219	0.4388	0.3491	0.5946	0.3626	0.86	0.8538	0.4793
	Brookfield 1	0.2098	0.2691	0.286	0.2755	0.2472	0.3531	0.2491	0.4194	0.3935	0.3103
	Brookfield 2	0.2098	0.5519	0.3842	0.6053	0.4366	0.4954	0.4403	0.8714	0.8507	0.4859
	FreeNA	0.21277	0.27165	0.29231	0.28957	0.24804	0.35313	0.25528	0.4215	0.39422	0.31295
	HWE	***	***	***	***	***	***	***	***	***	***
	N_a	23	24	21	12	23	18	14	12	7	19
	H_o	0.468	0.432	0.364	0.294	0.463	0.190	0.429	0.053	0.043	0.350
Jukskei	H_e	0.933	0.924	0.935	0.817	0.925	0.904	0.884	0.863	0.664	0.914
	F	0.498	0.532	0.611	0.640	0.499	0.789	0.515	0.939	0.935	0.617
	Null present	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
	Oosterhout	0.4179	0.2998	0.3092	0.2975	0.2989	0.3864	0.2706	0.3259	0.4222	0.1925
	Chakraborty	0.7414	0.4286	0.4606	0.4454	0.4292	0.6692	0.3866	0.5	0.8558	0.2618
	Brookfield 1	0.4076	0.2727	0.2992	0.2865	0.2882	0.3663	0.2558	0.3077	0.3724	0.1912

Population		Lut435	Lut453	Lut457	Lut604	Lut615	Lut701	Lut715	Lut782	Lut818	Lut832
	Brookfield 2	0.4986	0.4345	0.4521	0.566	0.5259	0.6188	0.6213	0.9057	0.594	0.6573
	FreeNA	0.40817	0.26948	0.30149	0.29066	0.288	0.3686	0.26044	0.31023	0.37245	0.20854
	HWE	***	***	***	**	***	***	**	ns	***	*
	N_a	12	9	13	8	10	7	7	5	6	8
	H_o	0.133	0.214	0.357	0.333	0.250	0.273	0.250	0.500	0.077	0.500
	H_e	0.902	0.681	0.895	0.816	0.875	0.831	0.797	0.750	0.642	0.844
	F	0.852	0.685	0.601	0.591	0.714	0.672	0.686	0.333	0.880	0.407
Klein	Null present	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
	Oosterhout	0.2623	0.2727	0.3118	0.2878	0.2742	0.2024	0.2217	0.4139	0.4745	0.3508
	Chakraborty	0.3624	0.3798	0.4633	0.4098	0.375	0.25	0.281	0.748	1	0.5749
	Brookfield 1	0.2543	0.2593	0.3015	0.2577	0.25	0.1818	0.1963	0.3975	0.4505	0.3365
	Brookfield 2	0.3469	0.6213	0.3015	0.6799	0.425	0.4462	0.5258	0.7884	0.7288	0.4923
	FreeNA	0.25778	0.25975	0.30353	0.25647	0.24668	0.1793	0.18971	0.39936	0.44478	0.34055
	HWE	*	*	***	**	**	*	*	**	***	***
	N_a	14	11	13	9	11	10	8	8	7	9
	H_o	0.429	0.400	0.333	0.333	0.385	0.500	0.455	0.125	0.000	0.231
	H_e	0.916	0.890	0.909	0.796	0.846	0.833	0.810	0.867	0.820	0.855
	F	0.532	0.551	0.633	0.581	0.545	0.400	0.439	0.856	1.000	0.730
Klip	Null present	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
	Oosterhout	0.2752	0.318	0.3942	0.3768	0.3535	0.3729	0.23	0.3105	0.3873	0.3822
	Chakraborty	0.3849	0.4822	0.6773	0.6294	0.5593	0.6123	0.3164	0.4767	0.6985	0.6387
	Brookfield 1	0.2634	0.3006	0.3805	0.3615	0.3424	0.3618	0.2269	0.3025	0.3528	0.3708
	Brookfield 2	0.4903	0.7436	0.4449	0.5625	0.5225	0.5118	0.5177	0.4663	0.8506	0.5682
	FreeNA	0.26293	0.30154	0.38109	0.35928	0.34307	0.36236	0.23749	0.30926	0.35327	0.37156
	HWE	***	***	***	***	***	***	***	***	***	***
	N_a	17	12	17	15	17	15	15	13	5	17
	H_o	0.400	0.300	0.171	0.200	0.258	0.219	0.464	0.313	0.133	0.200
	H_e	0.901	0.859	0.891	0.871	0.913	0.910	0.894	0.882	0.751	0.907
	F	0.556	0.651	0.808	0.770	0.717	0.760	0.481	0.646	0.822	0.780
Pienaars	Null present	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
	Oosterhout	0.2769	0.2889	0.3498	0.3884	0.2565	0.3544	0.3044	0.2528	0.4281	0.4034
	Chakraborty	0.3897	0.41	0.5498	0.6529	0.3445	0.58	0.4525	0.3407	0.8473	0.7075
	Brookfield 1	0.2721	0.2816	0.3413	0.3757	0.2492	0.3343	0.2924	0.2331	0.3949	0.392
	Brookfield 2	0.3192	0.3701	0.4932	0.662	0.4183	0.4568	0.6129	0.8203	0.7883	0.5342
	FreeNA	0.28255	0.29646	0.33359	0.37877	0.25709	0.33603	0.31127	0.23111	0.39983	0.38352
	HWE	***	***	***	***	***	***	***	*	***	***
	N_a	22	24	18	16	27	12	12	10	7	14
	H_o	0.414	0.393	0.269	0.190	0.462	0.222	0.333	0.417	0.063	0.154
	H_e	0.942	0.939	0.927	0.893	0.947	0.836	0.884	0.847	0.756	0.898
	F	0.561	0.582	0.709	0.787	0.513	0.734	0.623	0.508	0.917	0.829

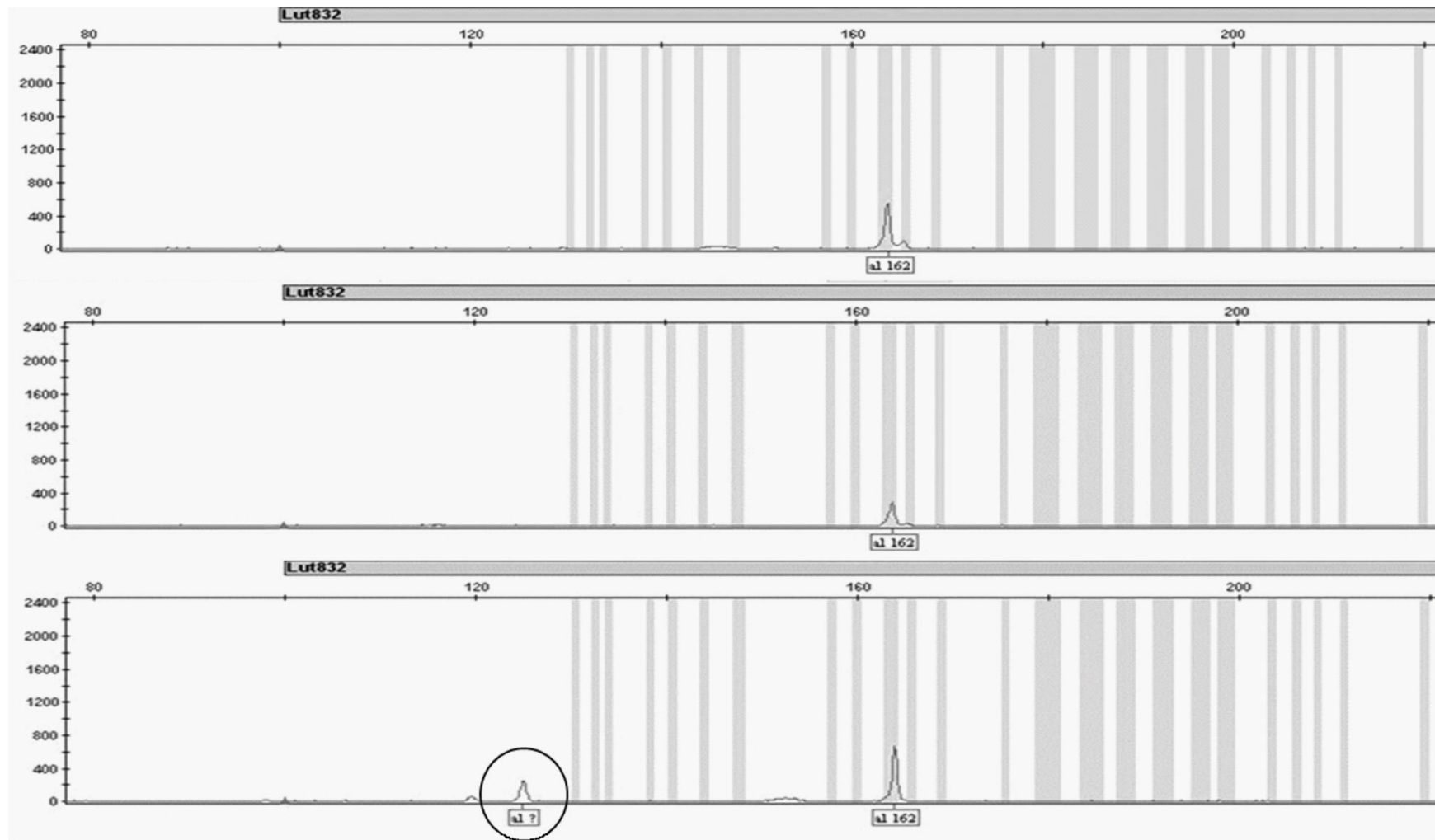


Figure 1: Multiple repeats of the same sample indicating the presence of a homozygous allele. Allele was scored as 162 based on the repeated detection of the allele, the occurrence of the allele in a prescribed bin, and the height of the allele indicating successful amplification. The circled allele in the bottom chromatograph was rejected as it only appeared once out of five repeats of the sample, and the allelic peak fell outside of the prescribed range of marker Lut832.

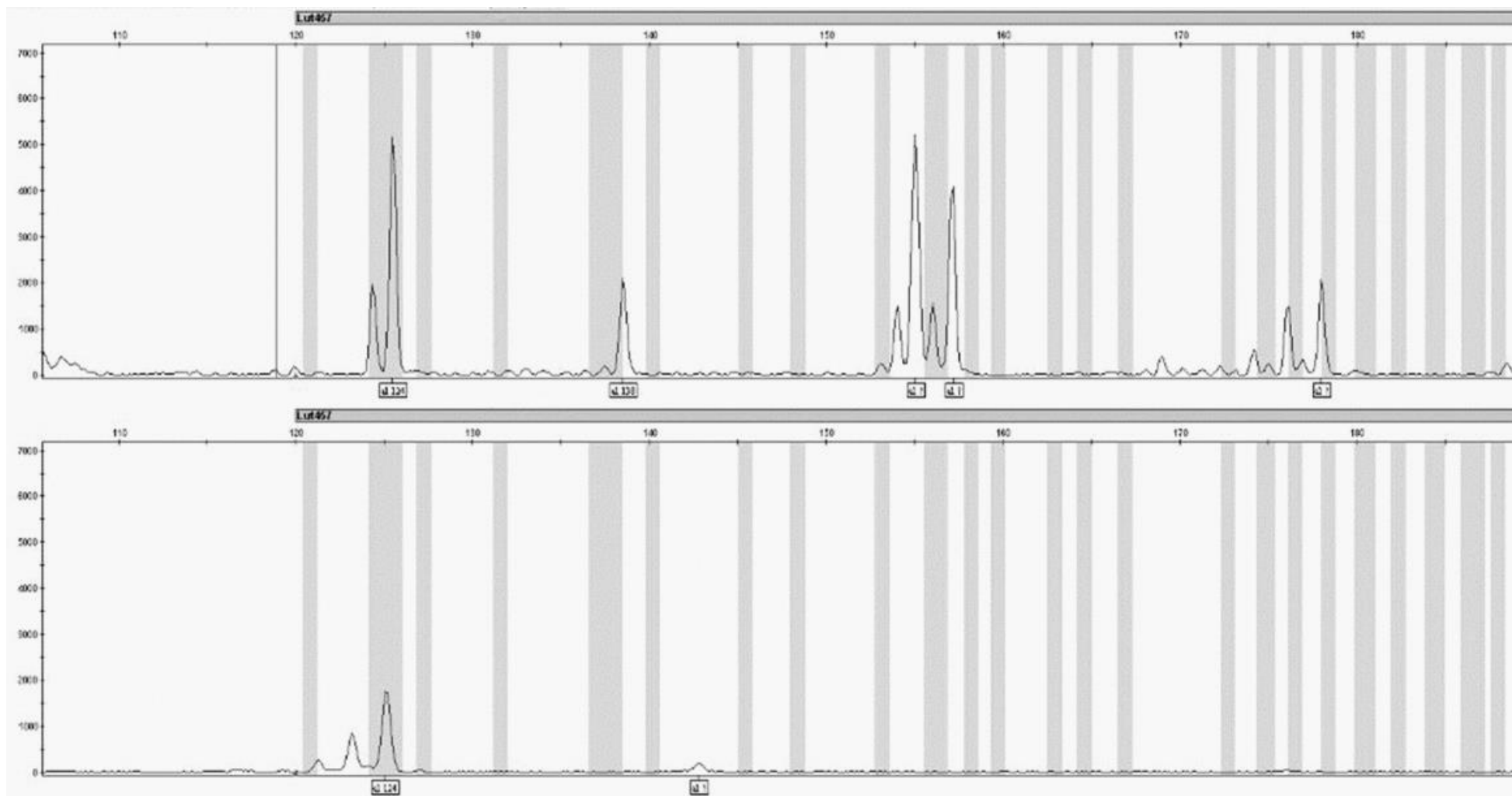


Figure 2: Initial amplification resulted in several allelic peaks with only one allele (124) falling into a prescribed bin. Repeat amplification yielded a more conclusive result with allele 124 present in a prescribed bin and being of an acceptable height. This sample was considered to be homozygous.