Supplemental Tables and Figures

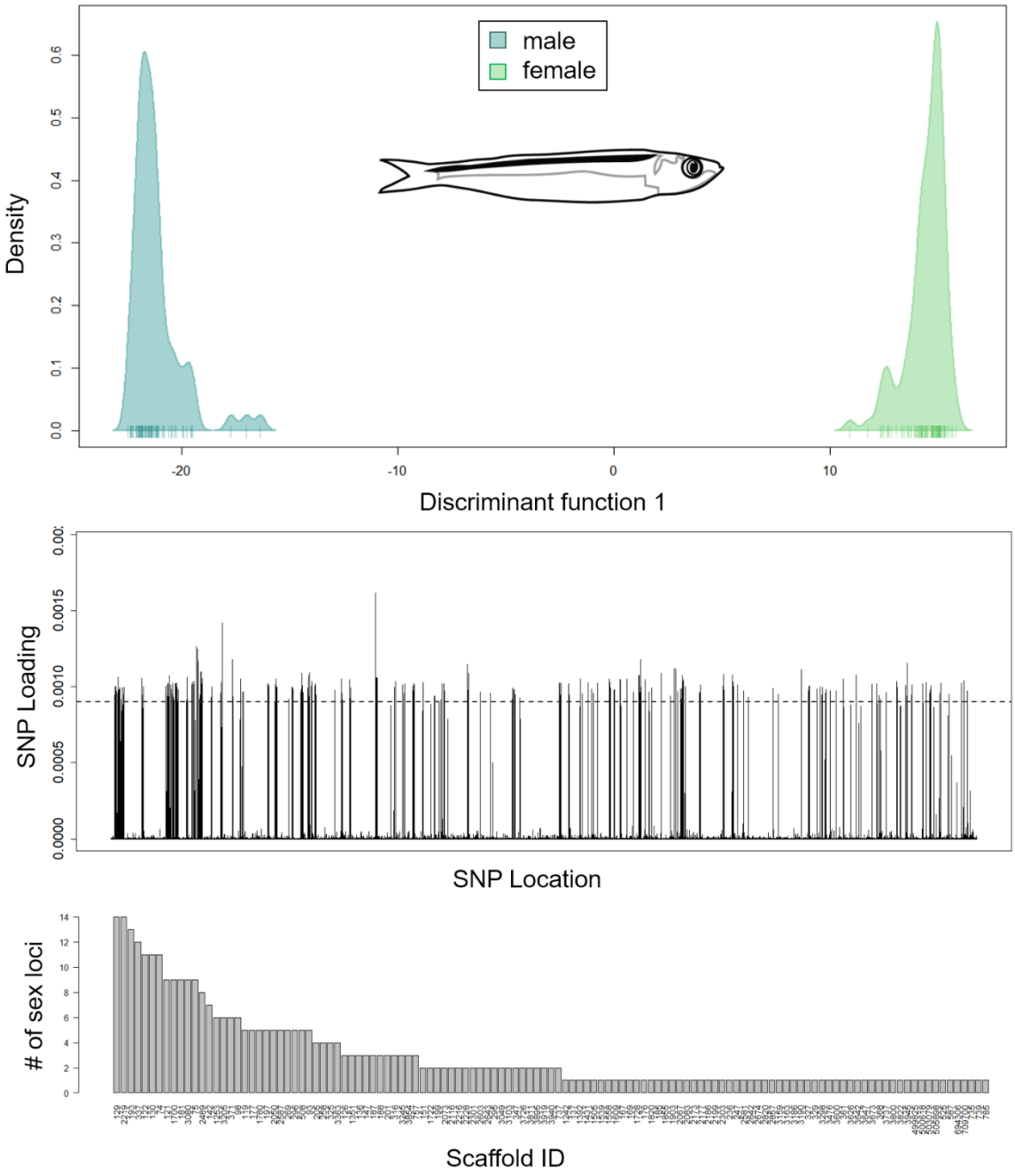

Figure S1. DAPC results for *Solothrissa* differentiation between sexes, showing distribution of individuals on discriminant axis 1 (top), loadings for all SNPs (middle), and distribution of the 369 significant SNPs (loading > 0.0009) across scaffolds.

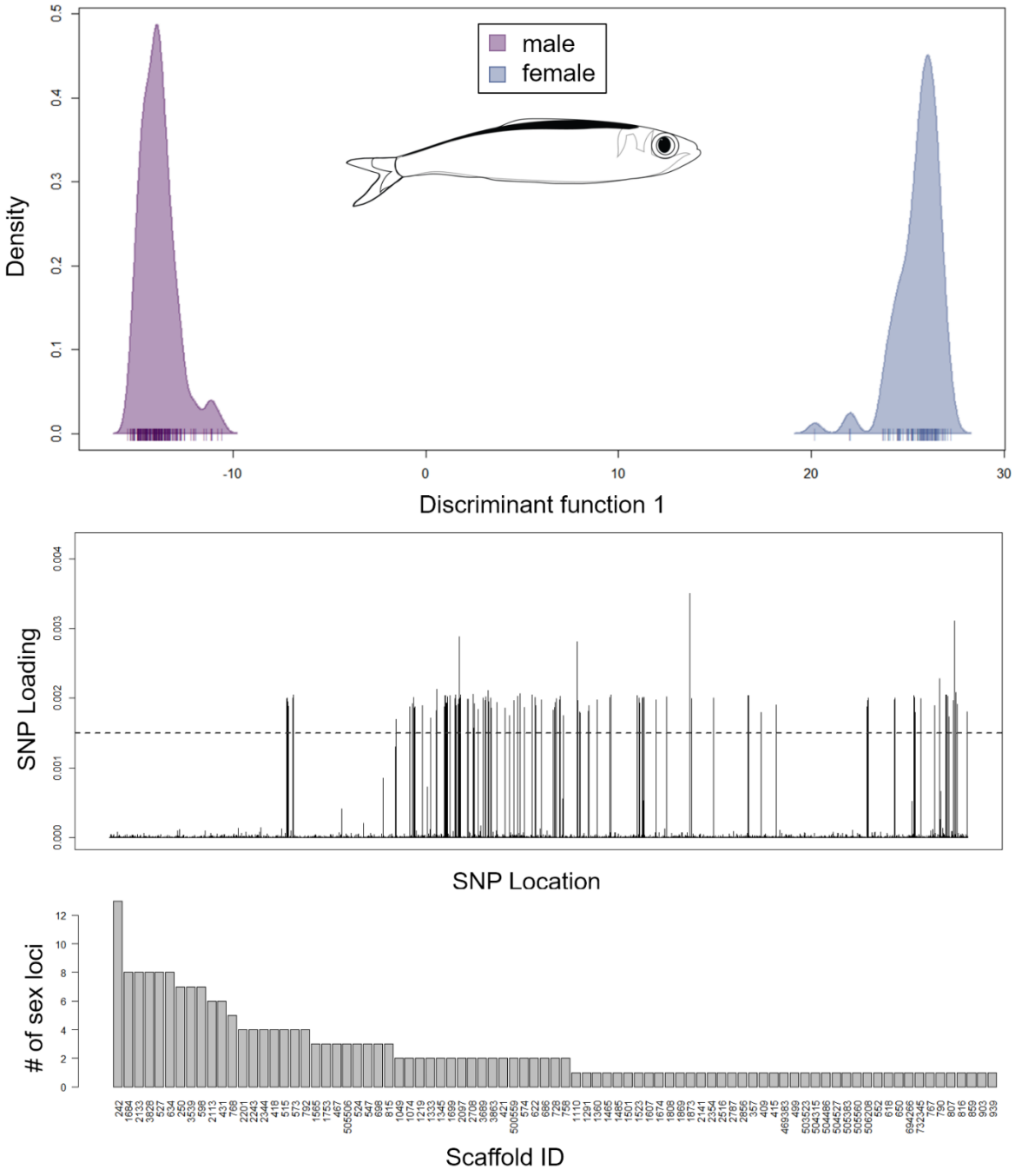

Figure S2. DAPC results for *Limnothrissa* differentiation between sexes, showing distribution of individuals on discriminant axis 1 (top), loadings for all SNPs (middle), and distribution of the 218 significant SNPs (loading > 0.0016) across scaffolds.

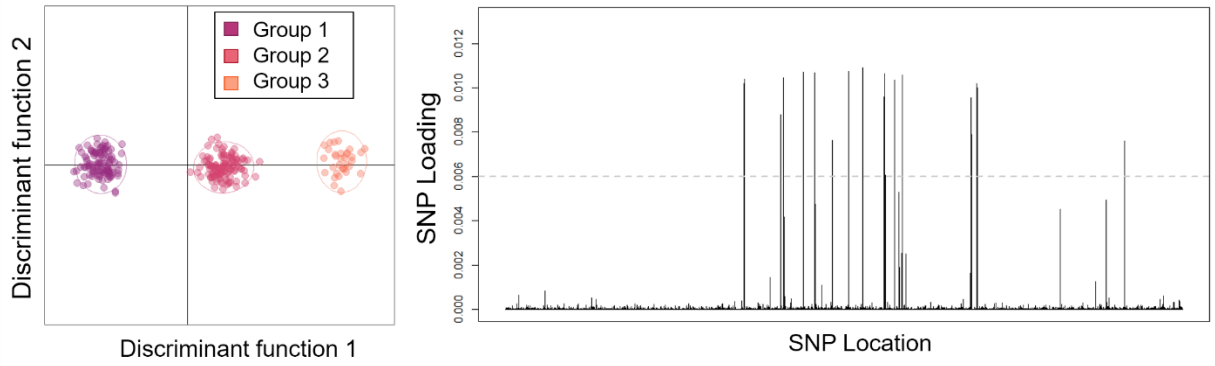

Figure S3. DAPC results for *Limnothrissa* differentiation between groups, showing distribution of locations on discriminant axis 1 and 2 (left), and loadings for all SNPs (right). We used a cutoff of 0.006 to identify SNPs with a significant loading on the differences between groups 1 and 3, resulting in a total of 25 significant SNPs.

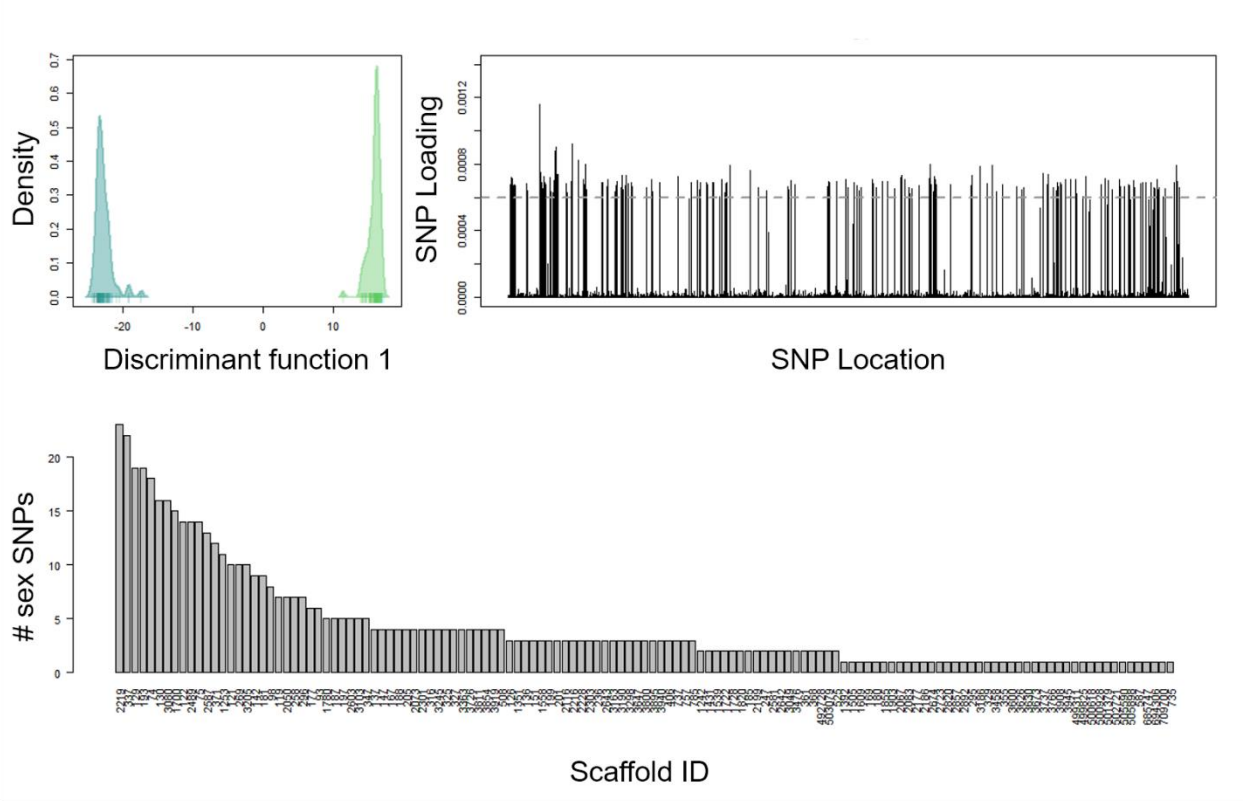

Figure S4. DAPC results for sex differentiation in *Stolothrissa* individuals using the combined species SNP dataset.

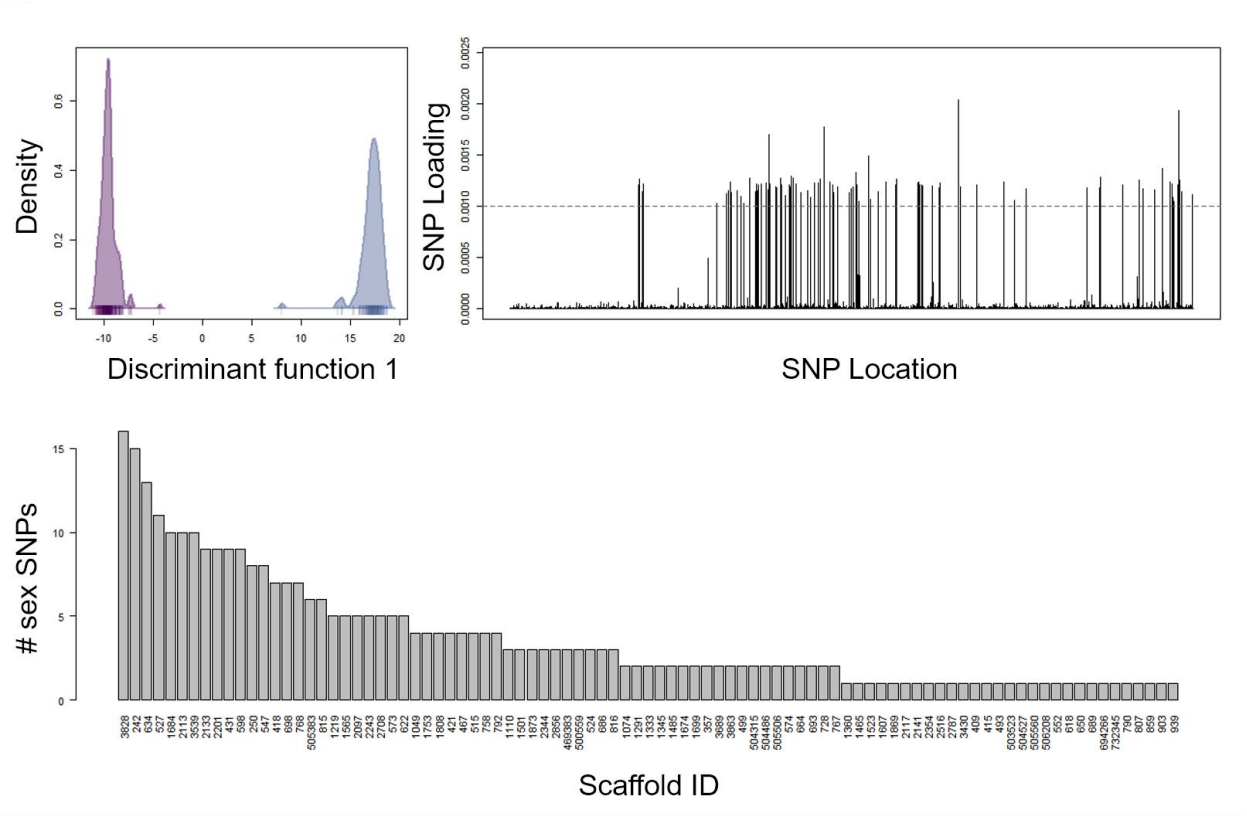

Figure S5. DAPC results for sex differentiation in *Limnothrissa* individuals using the combined species SNP dataset.

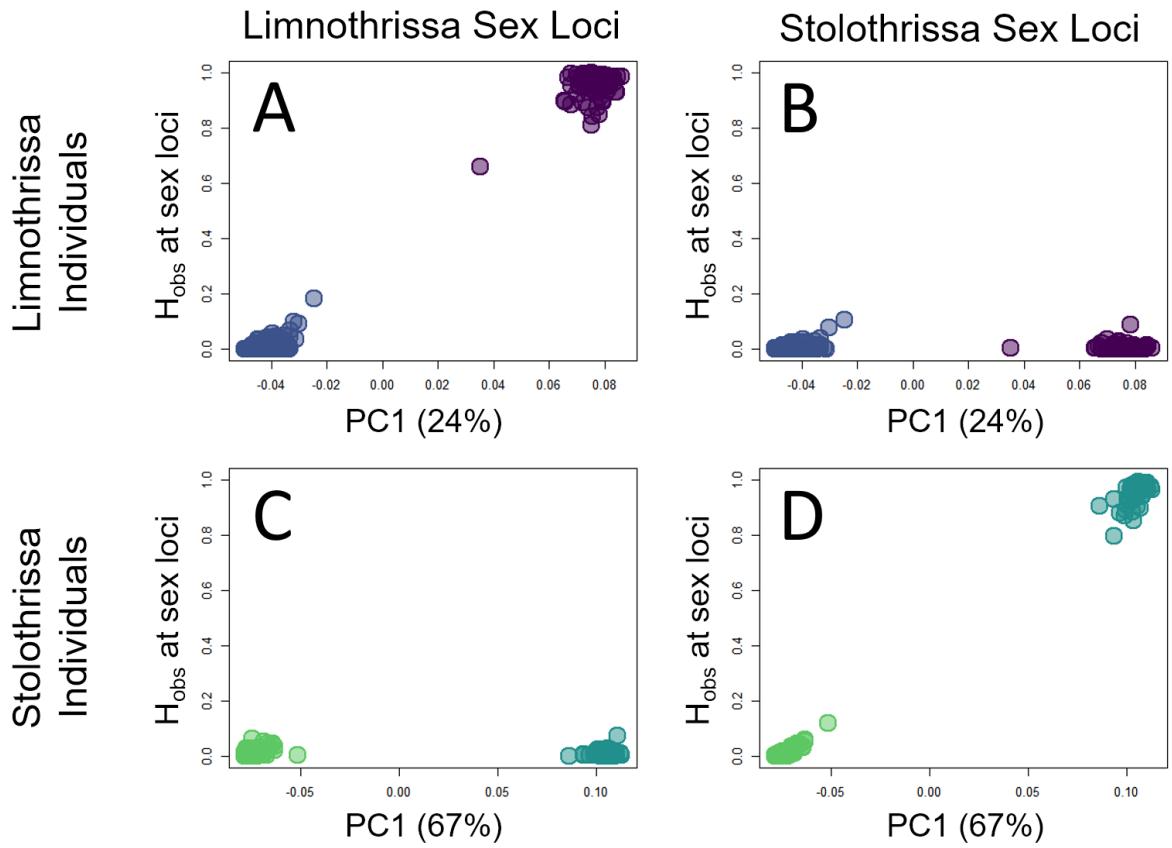

Figure S6. Observed heterozygosity of *Limnothrissa* individuals (A, B) and *Stolothrissa* individuals (C,D) at significant sex loci identified in *Limnothrissa* (A,C) and *Stolothrissa* (B,D), plotted against the first PC-axis for the species that the individuals belong to. Points are colored by genetically-identified sex, and PCAs were conducted on each species separately using the set of SNPs identified in the species-combined data set.

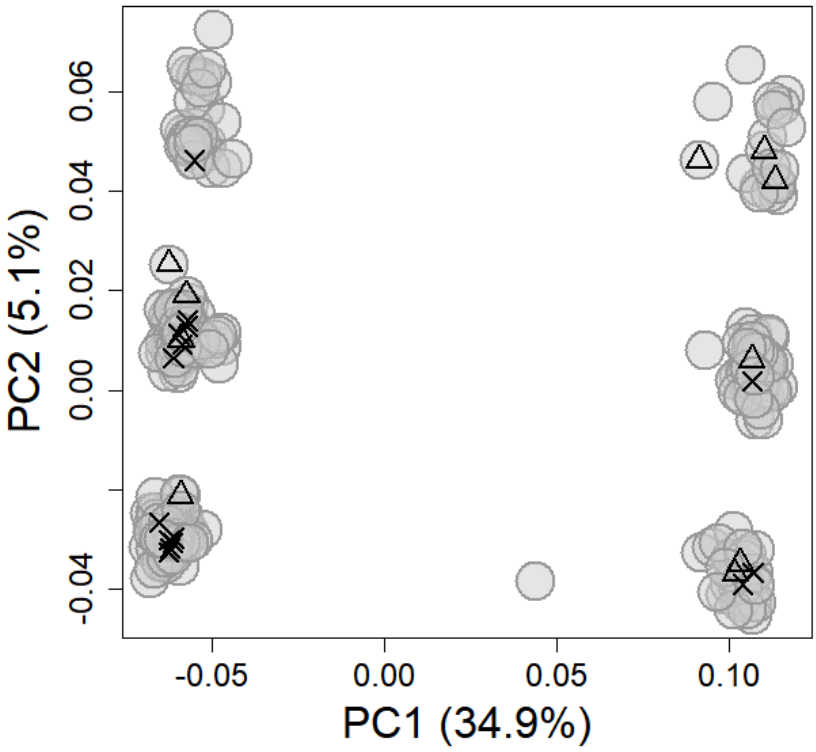

Figure S7. PCA of *Limnothrissa* individuals, highlighting a group of juvenile *Limnothrissa* (< 3cm) caught from the same school in Sibwesa (South Mahale) in 2015 (black X's), and nine Limnothrissa fry (< 2cm) caught in one scoop with a hand net in Kagunga in 2017 (black triangles). Both single-school samples included individuals from multiple different karyotypes.

Table S1. Sex determination in *Stolothrissa* and *Limnothrissa*

Stolothrissa			***Limnothrissa***		
Sample ID	**Genetic sex**	**Phenotypic sex**	**Sample ID**	**Genetic sex**	**Phenotypic sex**
138863.IKO02	female	male	139100.KAS26	male	male
138864.IKO03	male	male	139122.KAS48	female	female
138866.IKO05	female	female	138826.KAT25	female	female
138867.IKO06	female	female	138827.KAT26	female	female
138868.IKO07	male	male	138828.KAT27	female	female
138869.IKO08	male	male	138831.KAT30	female	female
138870.IKO09	female	female	138832.KAT31	female	female
138872.IKO11	male	male	138836.KAT35	female	female
138873.IKO12	female	female	138842.KAT41	female	female
138874.IKO13	female	female	138919.IKO58	male	male
138883.IKO22	male	male	138955.IKO94	male	male
138889.IKO28	male	male	138982.KIP15	female	female
139217.KAG51	female	female	138994.KIP26	female	female
139219.KAG53	female	female	138998.KIP30	female	female
			139010.KIP42	female	female
			139011.KIP43	female	female
			139022.KIP54	female	female
			139098.KAS24	male	male
			139101.KAS27	female	female
			139117.KAS43	female	female
			139119.KAS45	male	male
			139137.KAS56	male	male
			139243.KAG77	male	male
			139245.KAG79	female	female
			139246.KAG80	male	male
			139252.KAG86	male	male
			64310.KIV01	female	female
			64311.KIV02	female	female
			64312.KIV03	female	female
			64445.KIV04	male	male
			64450.KIV05	male	male
			64452.KIV06	male	male
			64554.KIV07	male	male
			64555.KIV08	male	male
			64556.KIV09	male	male
			64557.KIV10	female	female
			64558.KIV11	male	male
			64559.KIV12	male	male
			64593.KIV13	female	female
			64595.KIV14	female	female
			64596.KIV15	female	female
			64597.KIV16	female	female
			64598.KIV17	female	female
			64599.KIV18	female	female
			64761.KIV19	male	male