

FIGURE S1.—Segregation pattern of different sex linked SNP markers in F2 population. (A) \bigcirc and \bigcirc Grandparents homozygous for opposite sex linked alleles. All \bigcirc and \bigcirc F1 offspring are heterozygous for such a marker and only 50% of the total F2 individuals (25% \bigcirc and 25% \bigcirc) have distinctly sex specific genotypes (shaded grey). (B) \bigcirc Grandparent is homozygous and \bigcirc grandparent has a Y- linked SNP. All \bigcirc F1 offspring are homozygous and \bigcirc F1 offspring are heterozygous for such a marker and 100% of the F2 individuals are informative for sex linkage (shaded grey). (C) \bigcirc Grandparent is homozygous and \bigcirc grandparent has an X- linked SNP. All \bigcirc F1 offspring are heterozygous and \bigcirc F1 offspring are homozygous for such a marker and the F2 individuals are not informative for sex linkage. (D) \bigcirc Grandparent is heterozygous and \bigcirc grandparent is homozygous for the sex linked SNP marker. 50% F1 offspring are heterozygous and 50% are homozygous (\bigcirc and \bigcirc) for such a marker. Depending on the F1 \bigcirc parent genotype, either 50% or 100% of the total F2 individuals can be informative when the F1 \bigcirc parent has heterozygous alleles shaded grey). When the F1 \bigcirc parent is homozygous, the F2 individuals are not informative for sex linkage.