

Figure 1S. Sample chromatograms at locus M-PAU14 from some observed MLGs of *Pu*, $P \times m$ and $P \times a$.

1. MLG *Pu*-E1 amplified a single allele, which according to the diploid status of *Pu* would represent a homozygote locus.

2-3. MLGs $P \times m$ -1 and $P \times m$ -4 amplified 3 alleles. According to its ploidy level ($4n$) and comparing the allele peak size, we assumed that alleles 77 or 75 were in 2 copies.

4-5. MLGs $P \times a$ -1 and $P \times a$ -3 amplified 3 alleles. Alleles 62 and 75/77 were assumed to represent the diploid $P \times m$ subgenome in $P \times a$, as they were not present in *Pu*. Although allele 68 is shared by the three species, in these cases we assumed that this allele represented the haploid *Pu* subgenome.

