



Figure S1: Meiosis and intratetrad-mating (automixis) in *Microbotryum lychnidis-dioicae*. A scenario with $2N$ number of 4 is shown, with a mating type (blue) and an autosomal (black) pair of homologous chromosomes. Mating type (MAT) is linked to the centromere. Mating type and linked loci (locus B) segregate at Meiosis I. Heterozygosity at loci linked to mating type, or that segregates a Meiosis I linked to other centromeres (locus C), is therefore restored by mating between cells from the same meiotic tetrad. This can shelter deleterious load loci linked to the mating type while purging heterozygosity at loci that segregate at Meiosis II due to crossing over (as shown for locus D).