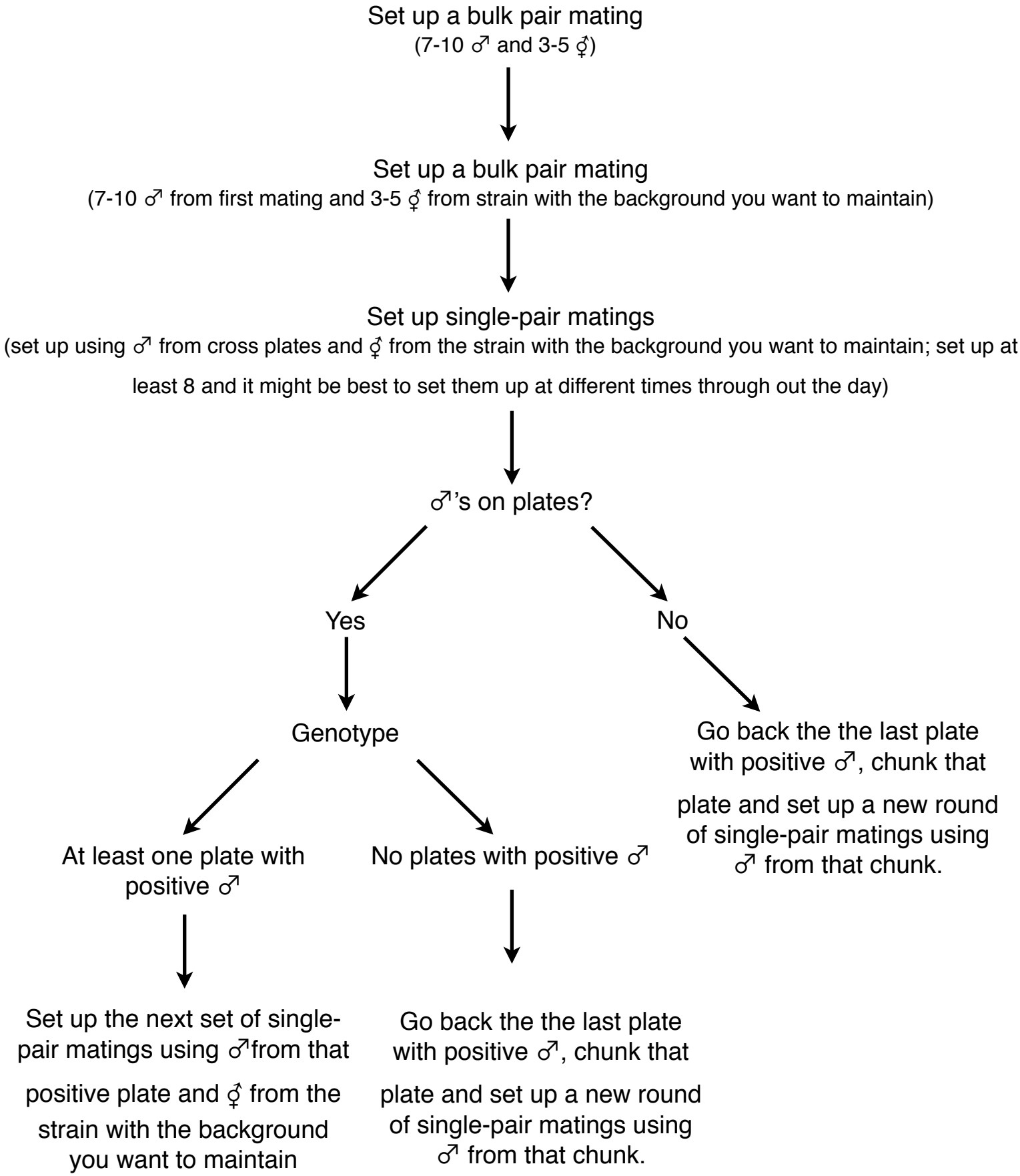
January 2014

Flow Chart for a Cross



• Continue with the above for a minimum of six rounds of outcrossing. This ensures that your newly built strain has as much of the ♂ strain background as possible.

• After the strain has been outcrossed, the genome needs to be homozygosed.
    • Pick single hermaphrodites to eight different plates.
    • Genotype the offspring from each plate.
        • Ideally, you want to genotype for both the allele you want and the allele you don't want.
            • If you get an offspring that is homozygous for the allele you want, you are done! Freeze the strain!
            • If you don't, continue putting single ♂ on eight plates and genotyping the offspring until you get a plate that shows offspring that are homozygous for your allele.
        • If you are not able to genotype both alleles, genotype for the allele you want. Go through enough rounds of homozygosing (putting eight single ♂ on plates from a plate shown to have positive animals) such that each plate shows animals with the allele you want. This process will probably take 6-8 rounds of homozygosing.