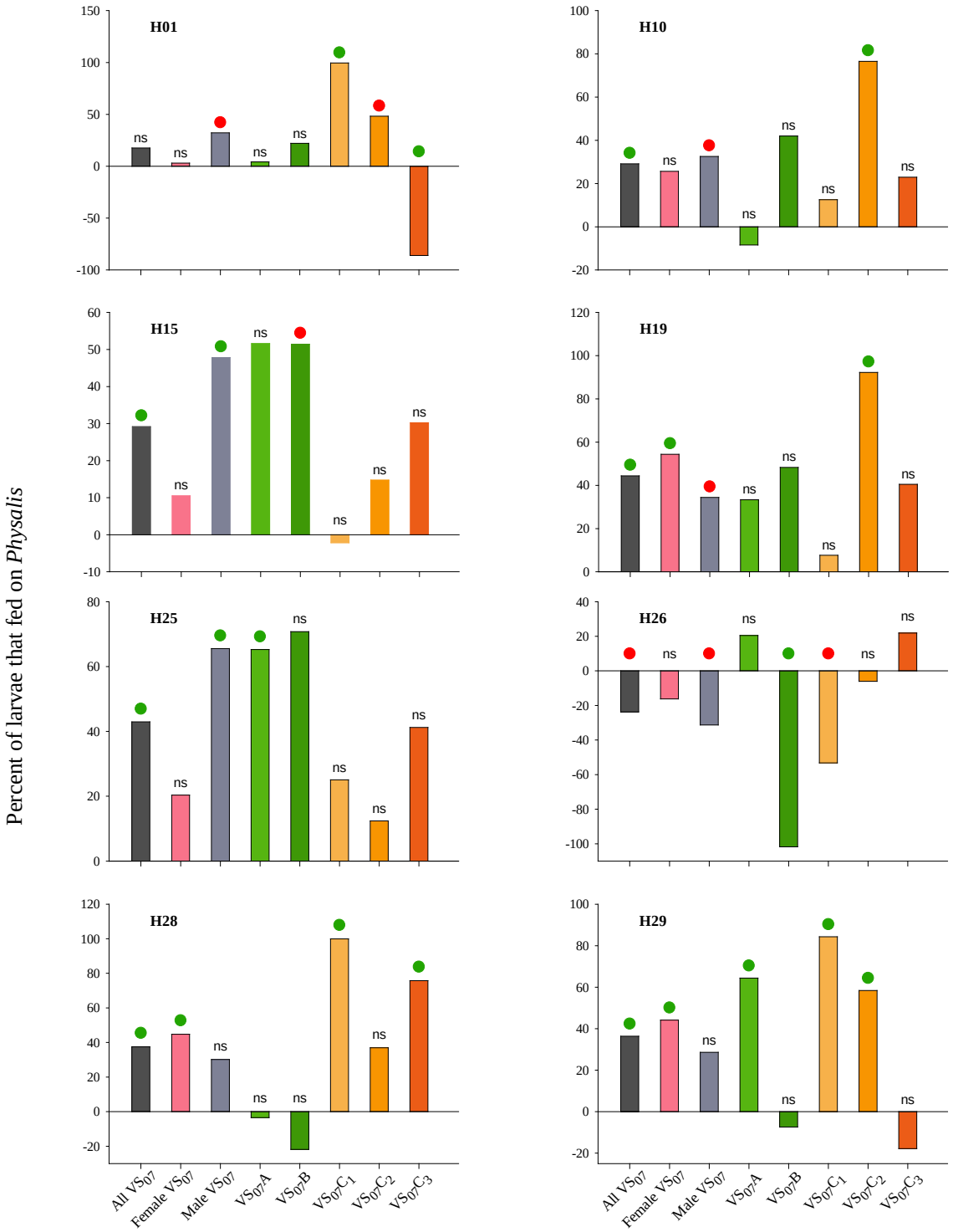
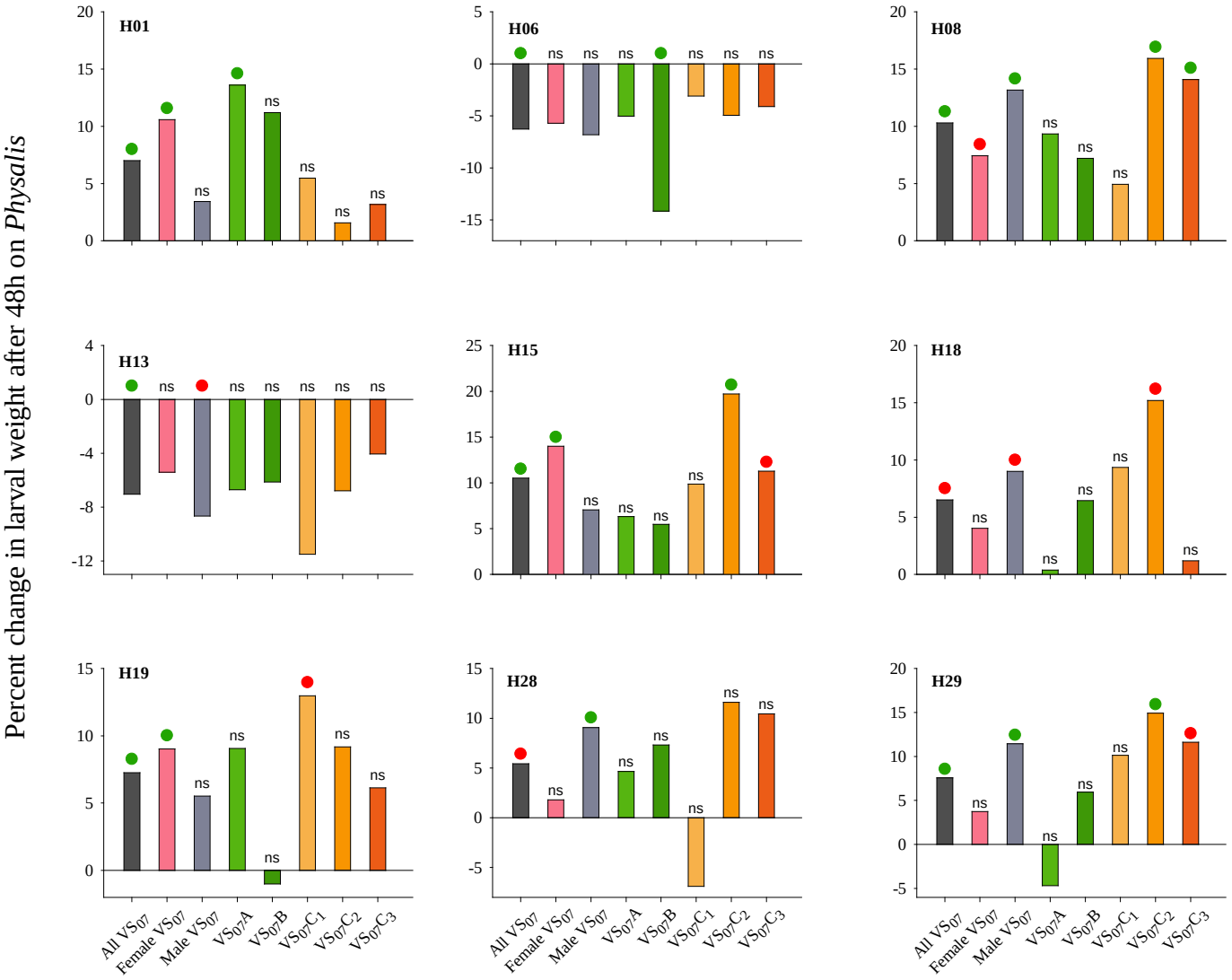
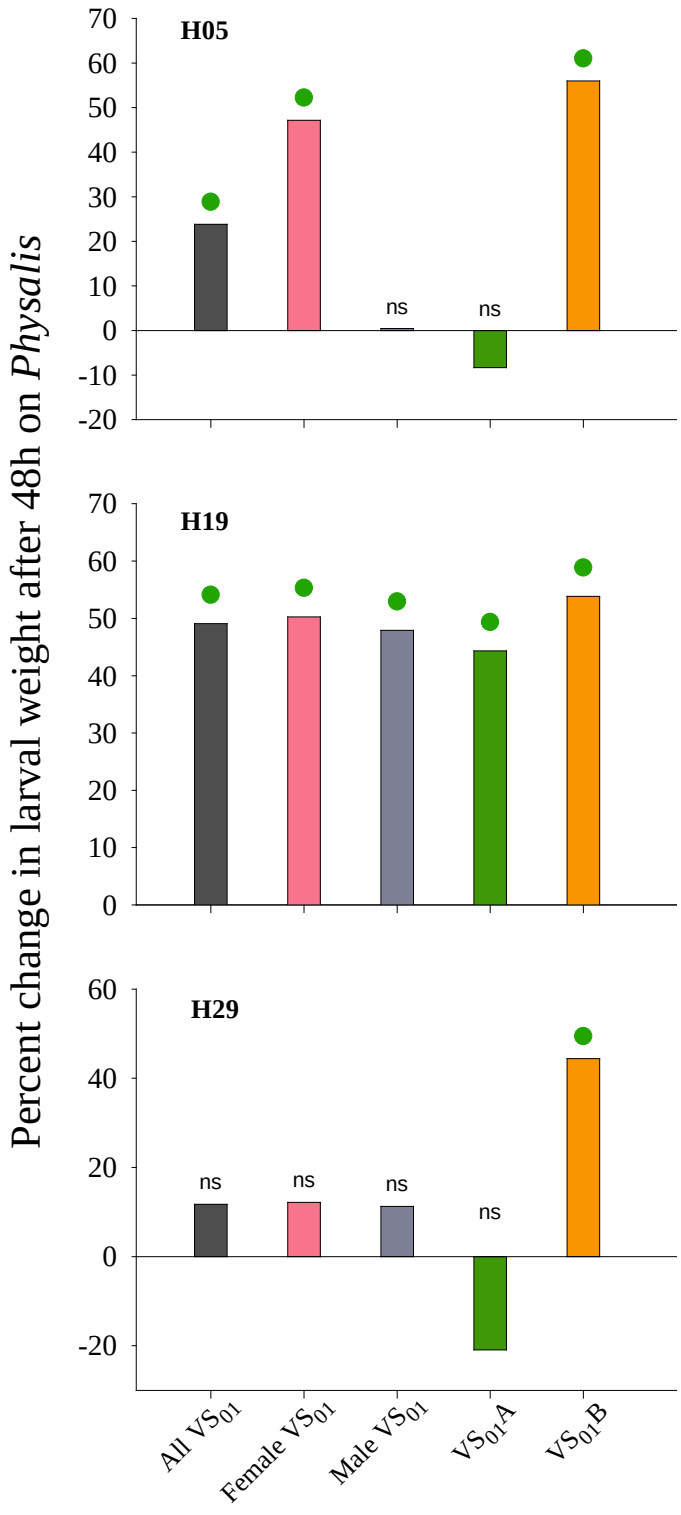


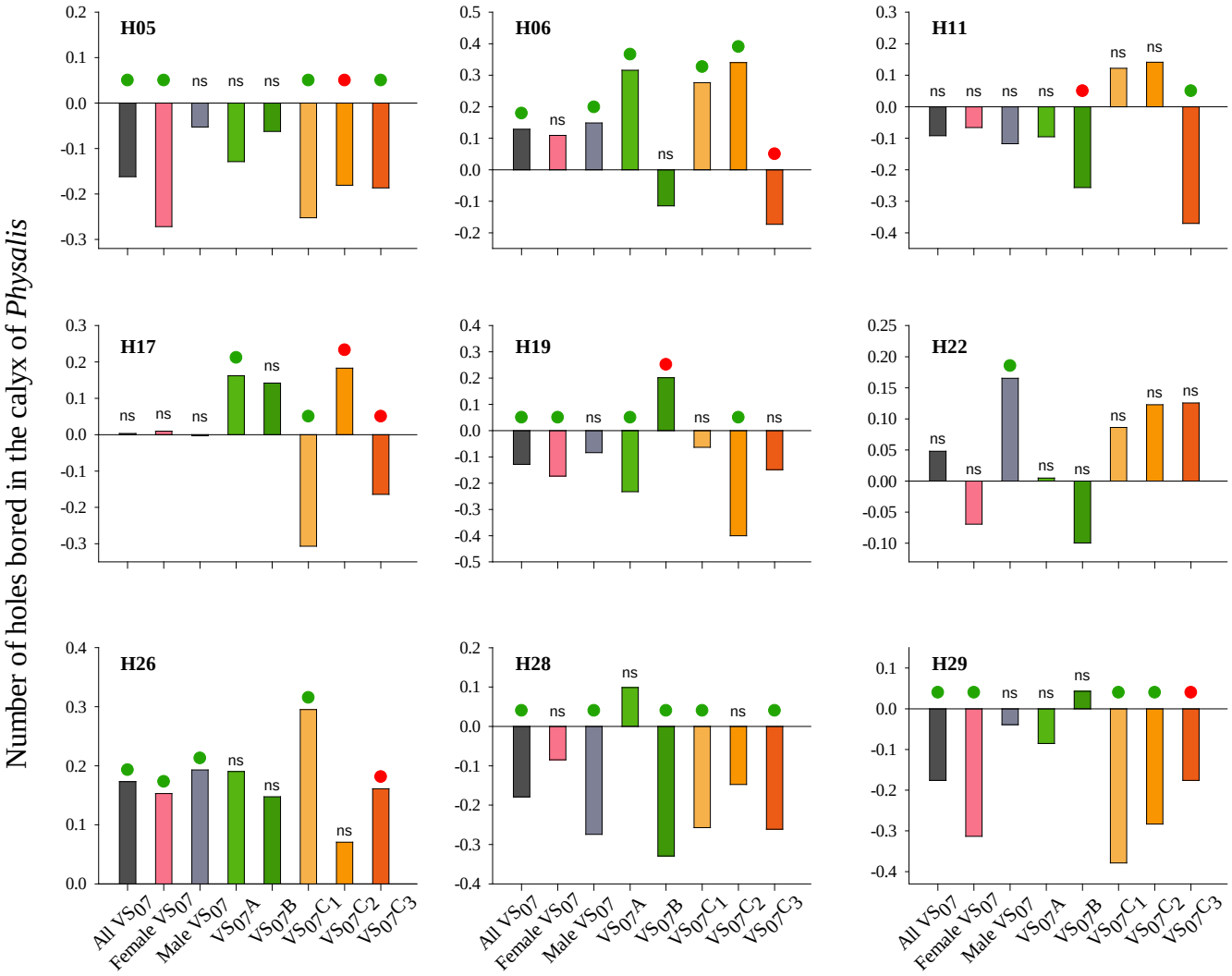
Supplemental Figure 1. The effect *H. subflexa*-origin chromosomes on the willingness of VS07 backcross larvae to feed on *Physalis* (expressed as the percent of larvae that fed). Bars are the additive effect of chromosome presence on larval phenotype (i.e. the mean phenotypic difference between chromosome-present and chromosome-absent larvae). Data are shown for the population as a whole, for each sex, for each lineage, and for families within the VS07C lineage. Significance levels are indicated by the symbol above each bar: Green dot = Significant ($p < 0.05$); Red dot = Suggestive ($0.05 < p < 0.1$); ns = not significant. No chromosomes were significant for larval feeding in VS01 population.



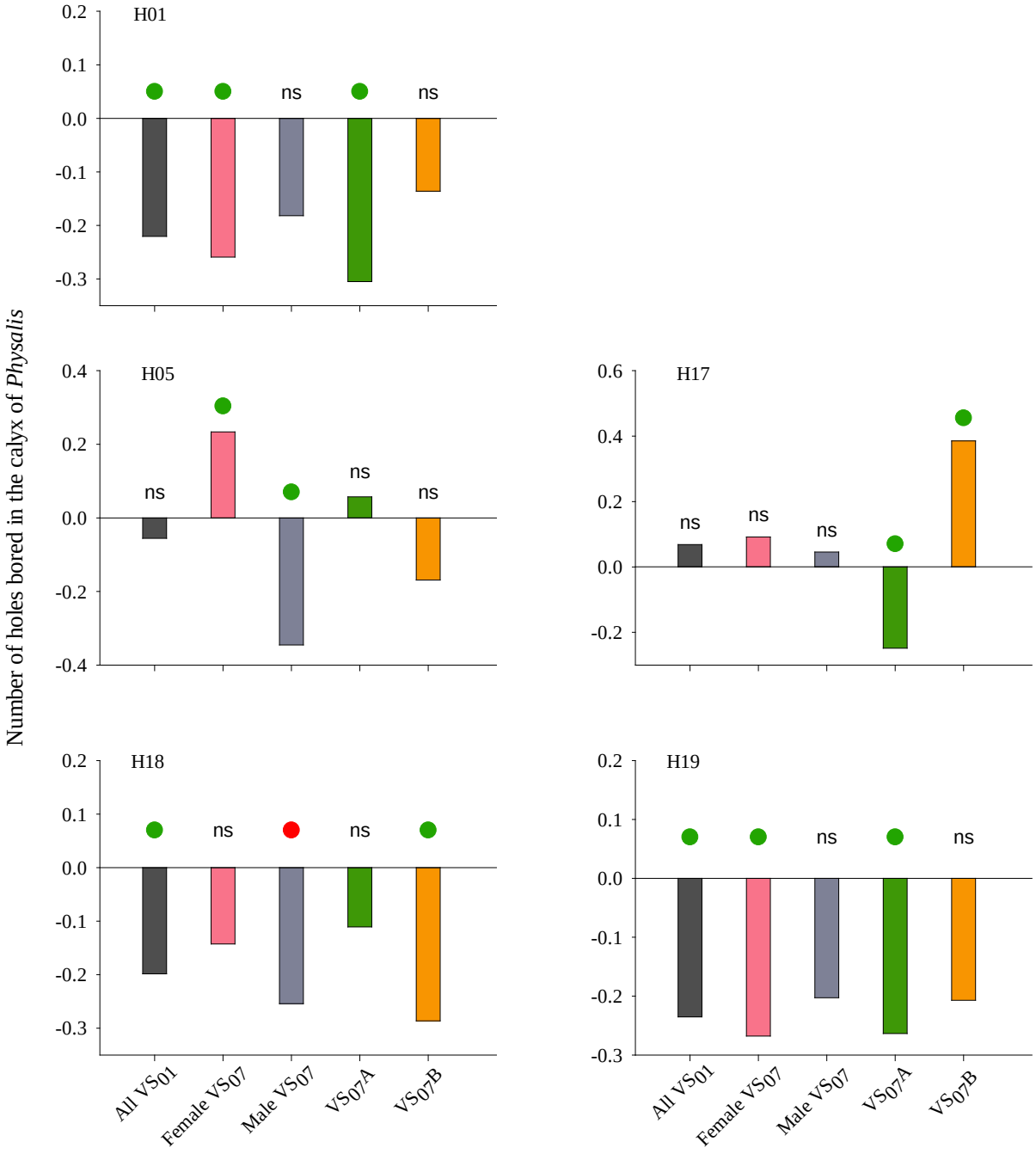
Supplemental Figure 2a. The effect of *H. subflexa*-origin chromosomes on the percent change in larval weight for backcross larvae from VS_{07}.



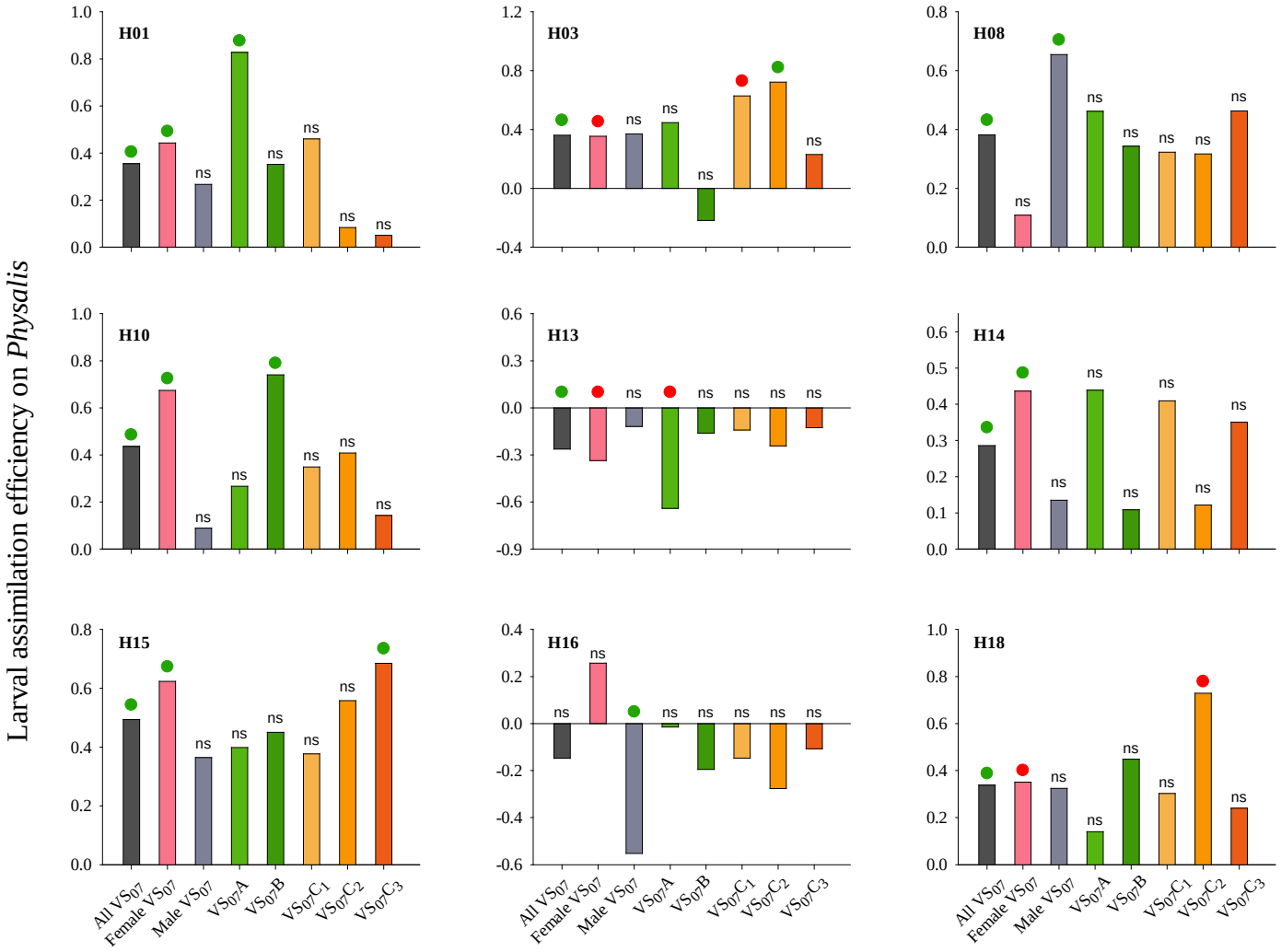
Supplemental Figure 2b. The effect of *H. subflexa*-origin chromosomes on the percent change in larval weight for backcross larvae from VS01. Data are shown for the population as a whole, for each sex, and for each lineage.



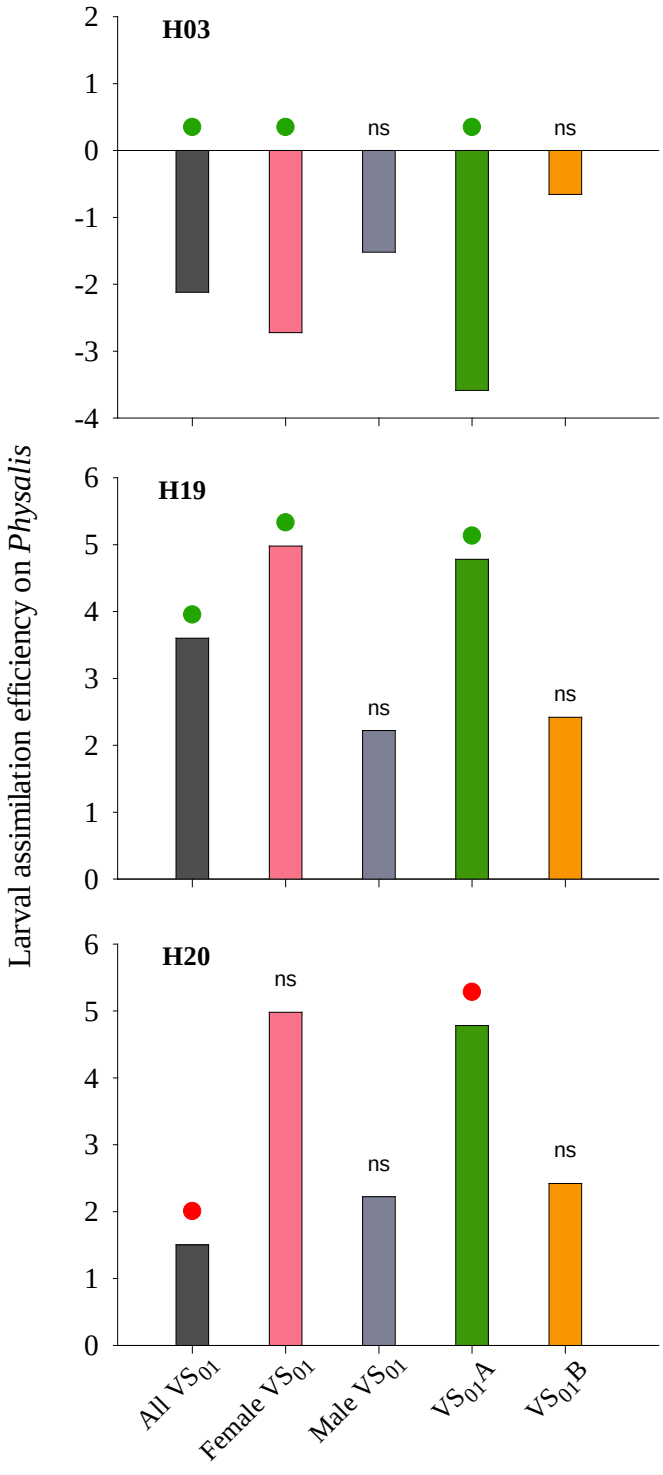
Supplemental Figure 3a. The effect of *H. subflexa*-origin chromosomes on the number of holes bored in the calyx of *Physalis* by backcross larvae from VS07.



Supplemental Figure 3b. The effect of *H. subflexa*-origin chromosomes on the number of holes bored in the calyx of *Physalis* by backcross larvae from VS_{01}.



Supplemental Figure 4a. The effect of *H. subflexa*-origin chromosomes on the assimilation efficiency of backcross larvae from VS07.



Supplemental Figure 4b. The effect of *H. subflexa*-origin chromosomes on the assimilation efficiency of backcross larvae from VS01.