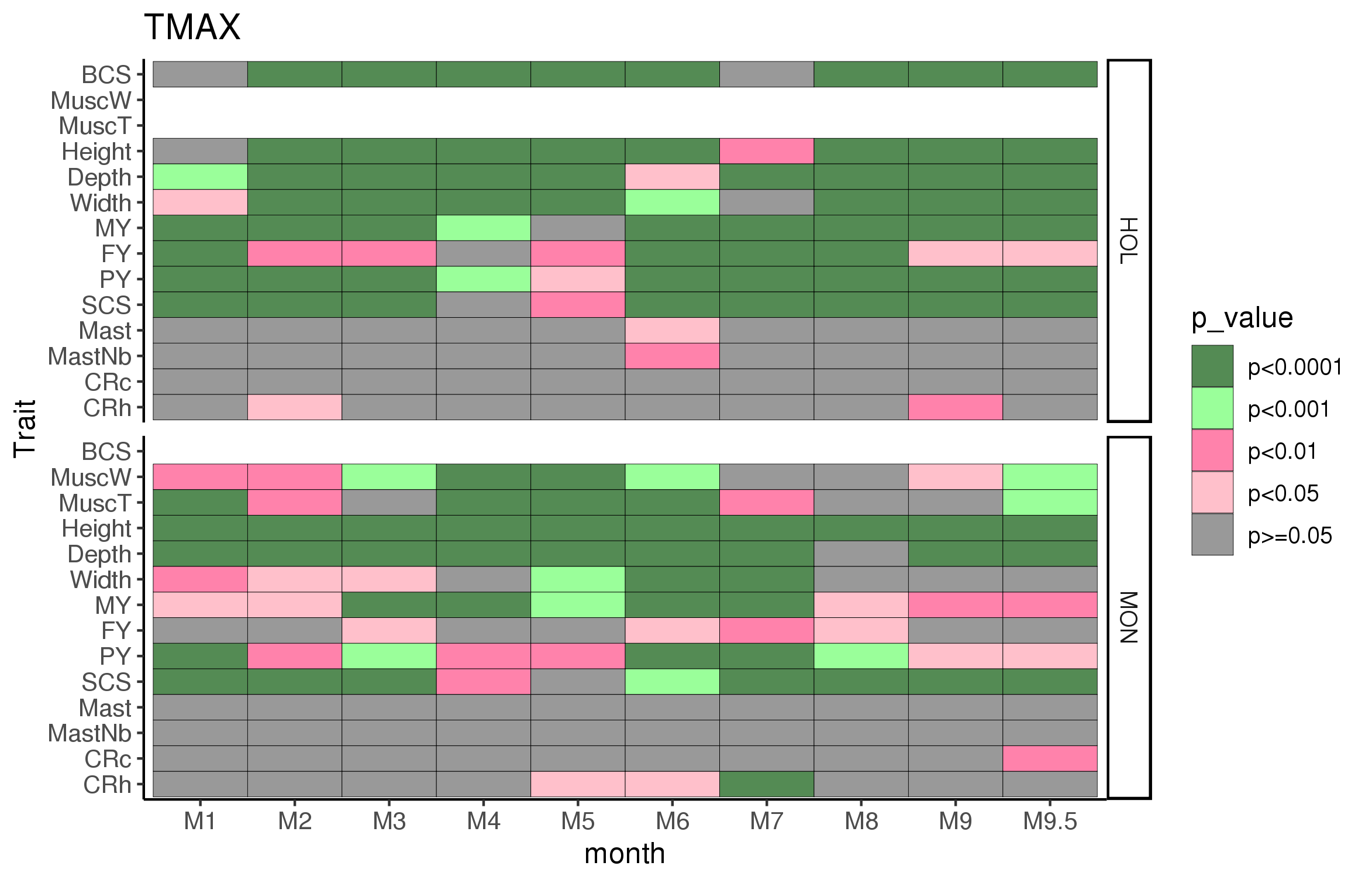
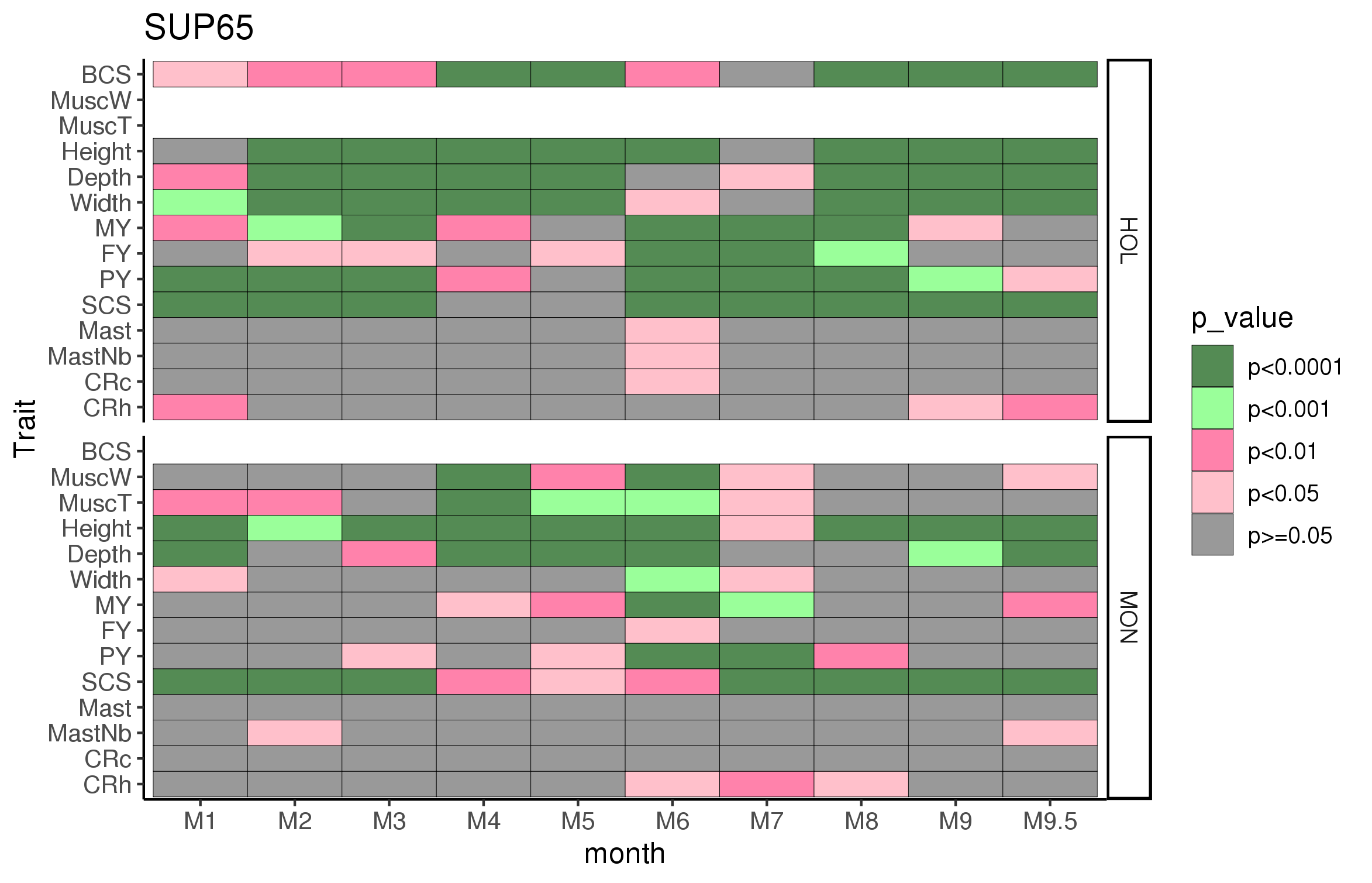
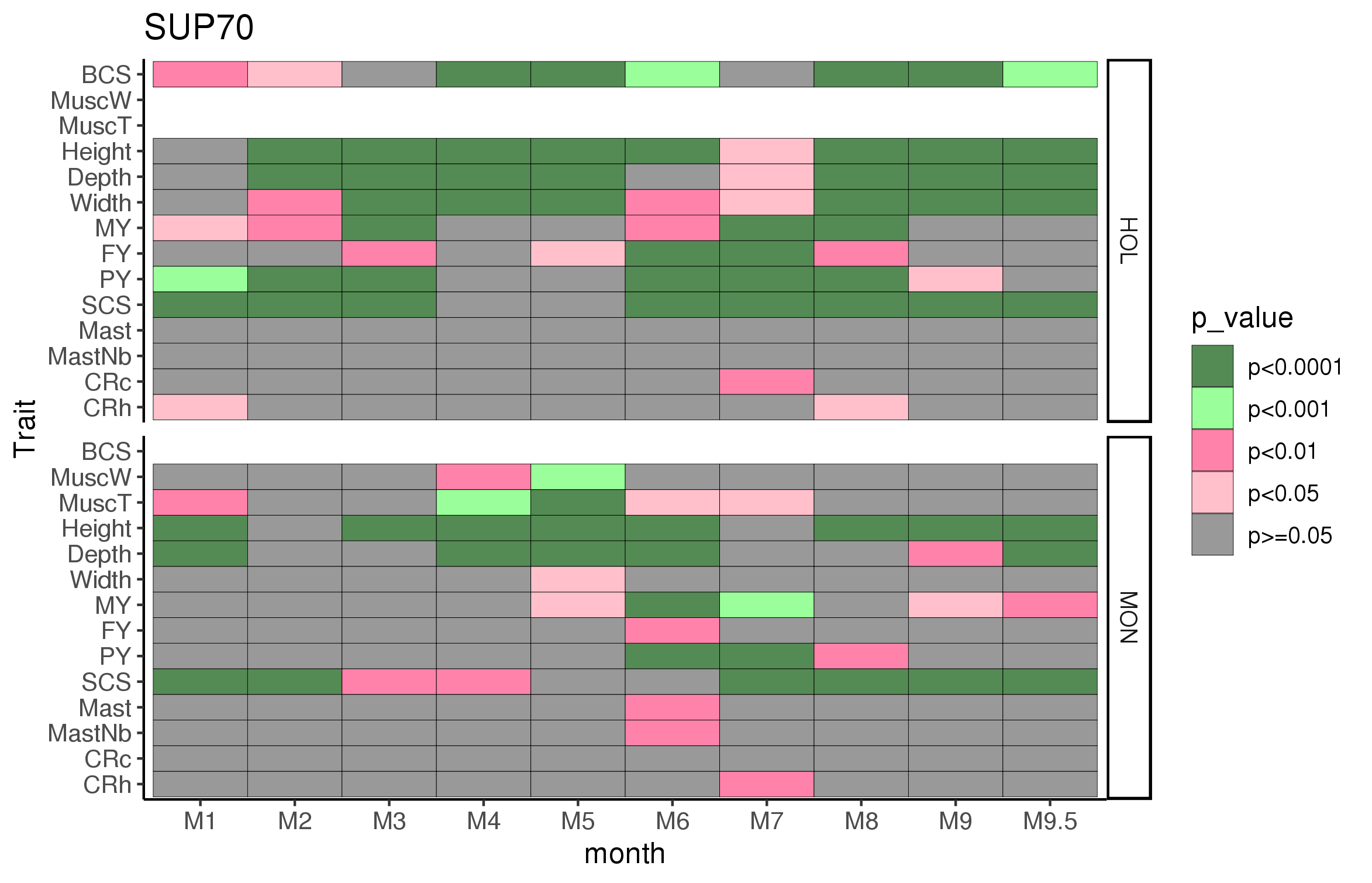
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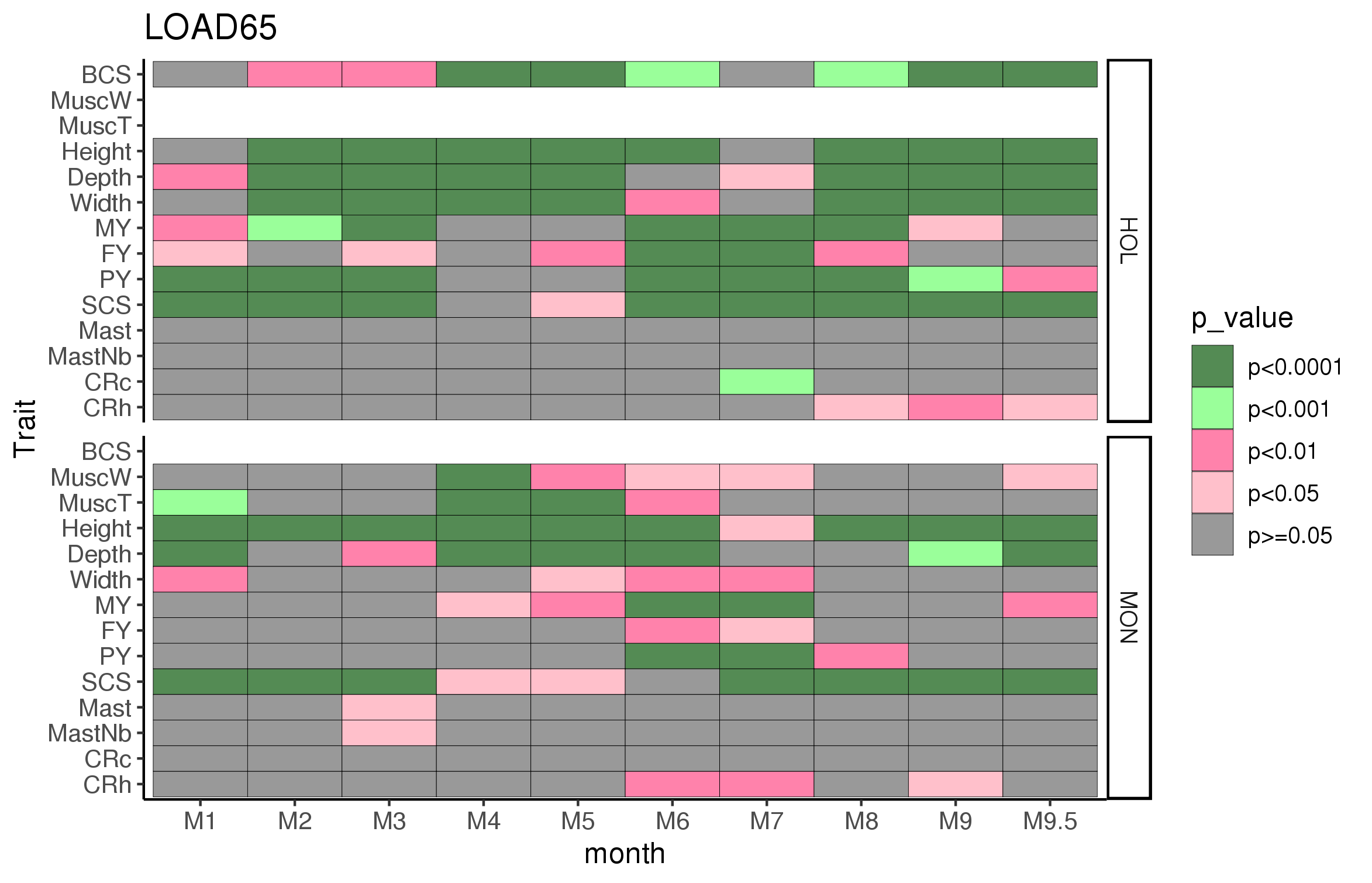
b



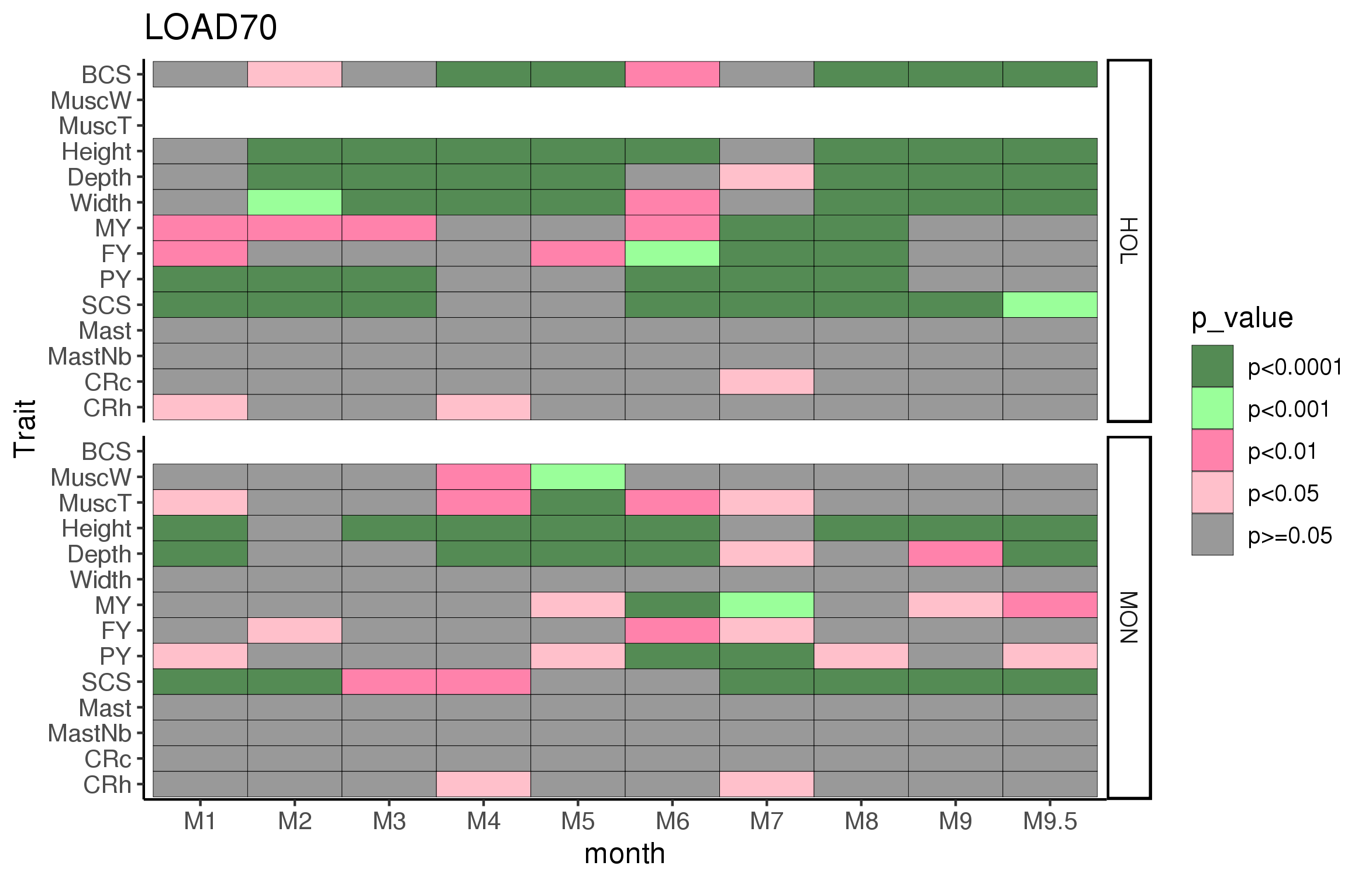
c



d



e

BCS: body condition score, MuscW: Muscularity at withers, MuscT: muscularity at thighs, Height: height at sacrum, Depth: body depth, Width: chest width.

MY: 305d milk yield, FY: 305d fat yield, PY: 305d protein yield.

SCS: somatic cell score, Mast: occurrence of mastitis during the 150d first days of lactation, MastNb: number of mastitis (during…).

CRh: conception rate of heifers; CRc: conception rate of cows.

M1: from d1 to d30 of the gestation of the dam; M2: from d31 to d60 of the gestation of the dam; …; M9: from d241 to d270 of the gestation of the dam; and M9.5: from d250 to d279 of the gestation of the dam.

**Figure S1.** p-values of the effect of the different meteorological indicators by month of the gestation of the dam on the progeny performances for both breed, Holstein (HOL, top) and Montbeliarde (MON, bottom). Results are given by colors with grey cells indicating that the null hypothesis (*i.e.* the absence of effect of the THI during the considered period) can not be rejected at the 5% level of significance. The meteorological indicators tested were :

Figure S1a) TMAX: average maximum temperature during the month of gestation considered

Figure S1b) SUP65: number of days above temperature-humidity index (THI) 65 during the month of gestation considered

Figure S1c) SUP70: number of days above THI 70 during the month of gestation considered

Figure S1c) LOAD65: sum of daily THI above THI 65 during the month of gestation considered

Figure S1e) LOAD70: sum of daily THI above THI 70 during the month of gestation considered