

The *P. patens* V3 genome – supplement

Auxiliary file 1:

- Plots of the marker placements for the 27 chromosomes (Fig. c1-c27)
- Methylation plots for TE subtypes (Fig. m1-m5)
- Histone 3 mark distribution in genes and TEs (Fig. h1-h6)
- Phenotypic differences of accessions (p 21/22, Fig. p1)
- sRNA Northern blots (p 23-28)

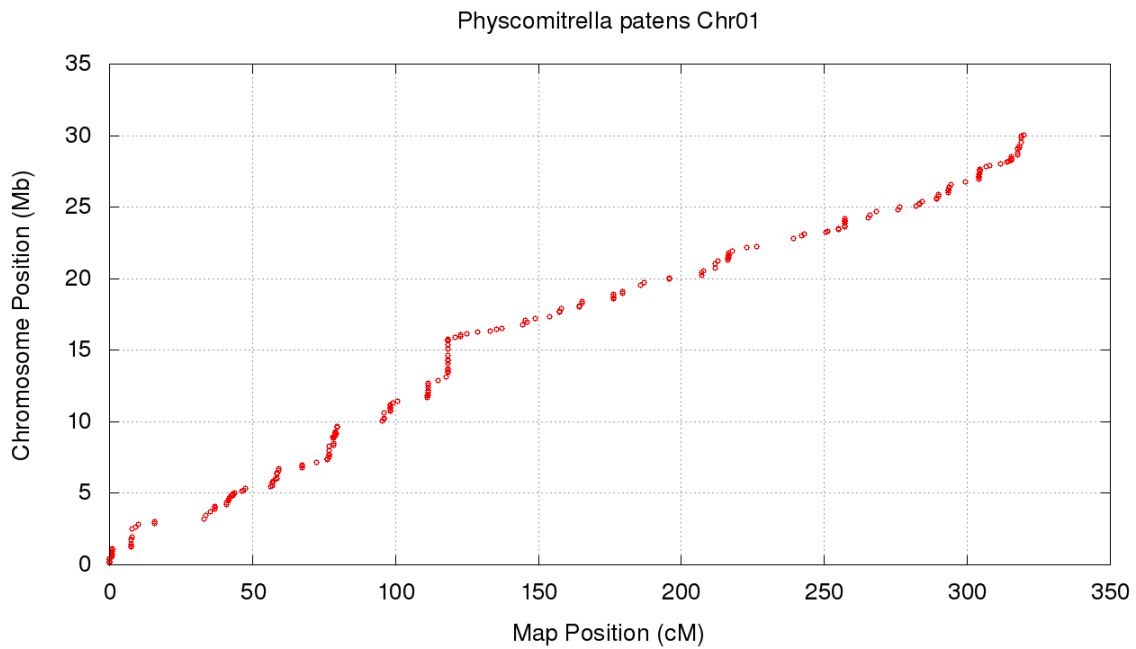


Figure c1: Genetic map marker placements on the *Physcomitrella patens* chromosome 1.

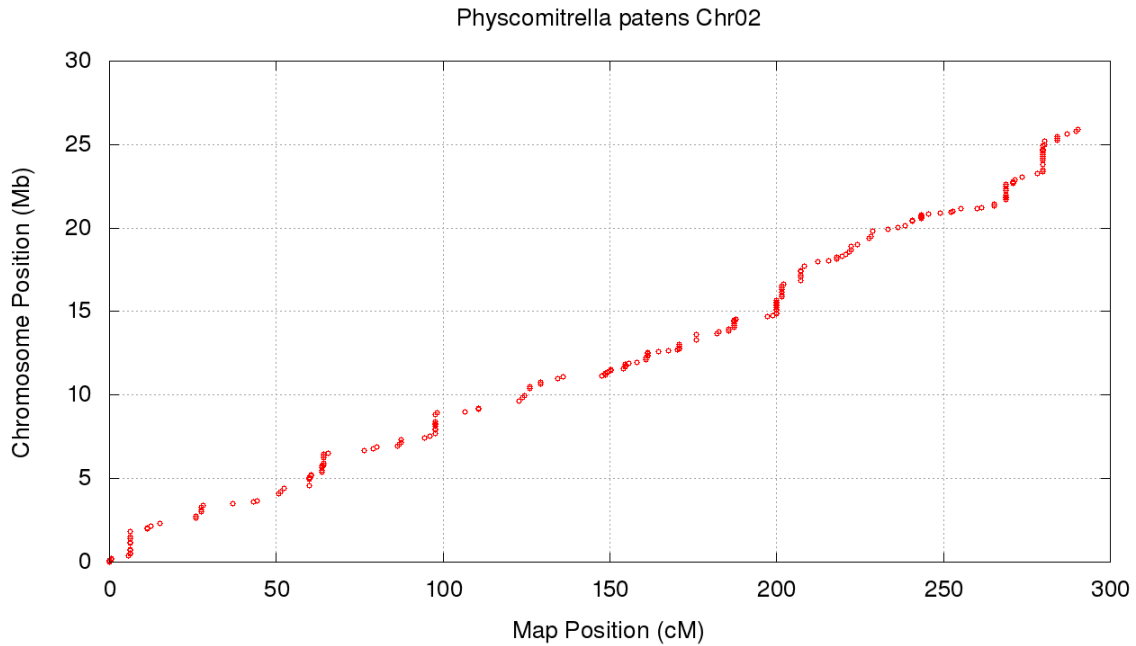


Figure c2: Genetic map marker placements on the *Physcomitrella patens* chromosome 2.

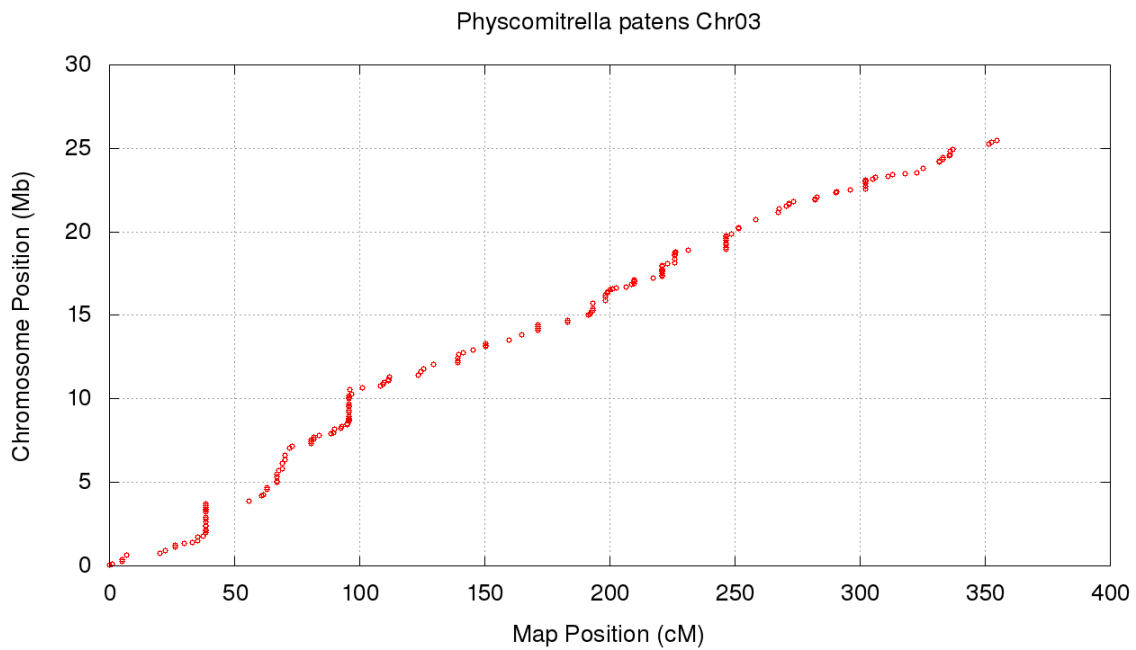


Figure c3: Genetic map marker placements on the *Physcomitrella patens* chromosome 3.

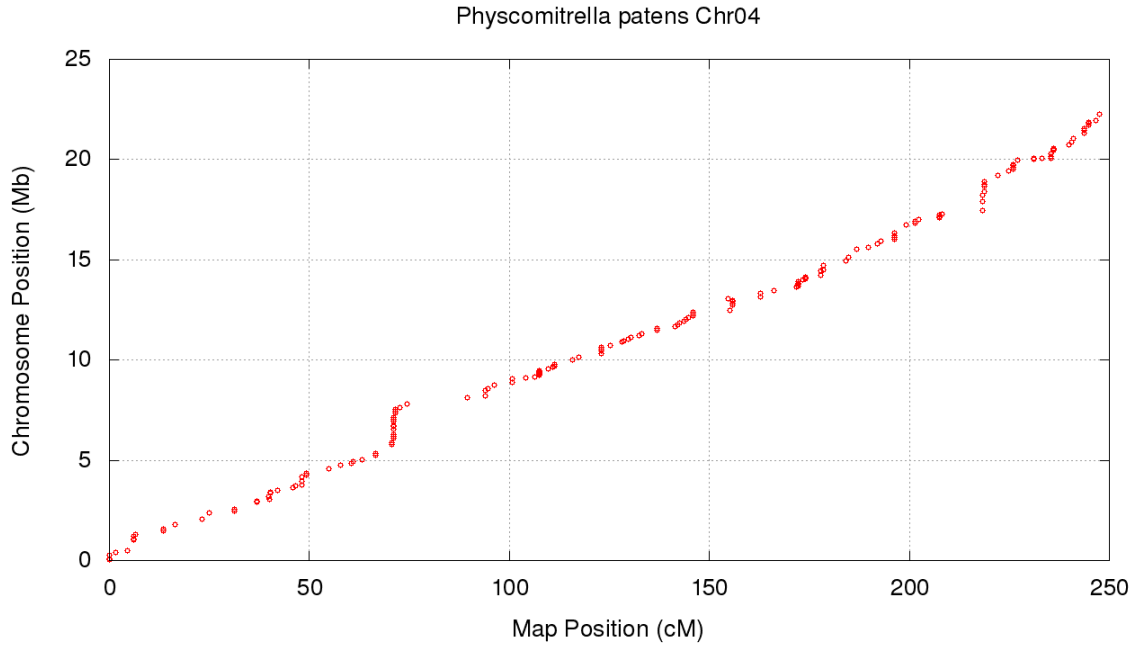


Figure c4: Genetic map marker placements on the *Physcomitrella patens* chromosome 4.

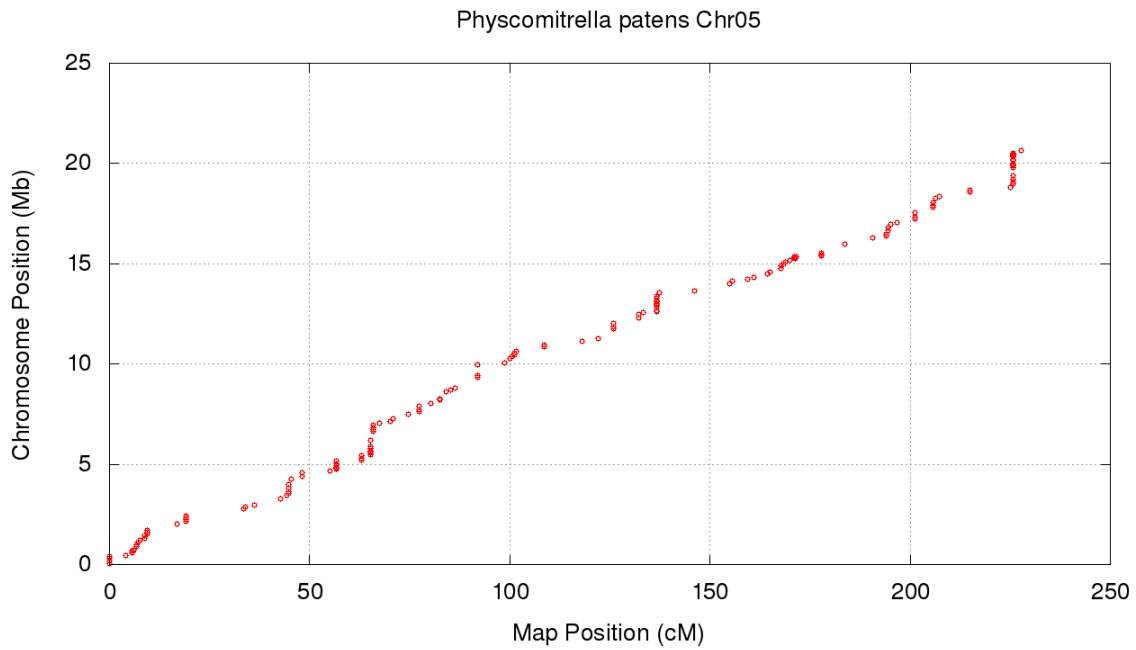


Figure c5: Genetic map marker placements on the *Physcomitrella patens* chromosome 5.

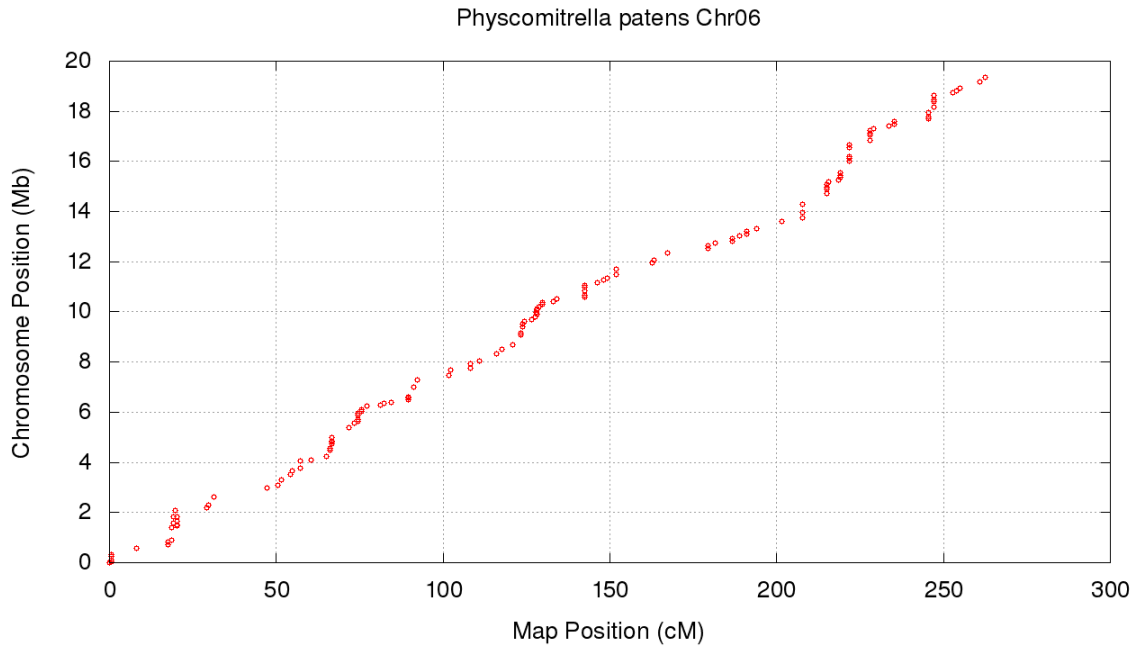


Figure c6: Genetic map marker placements on the *Physcomitrella patens* chromosome 6.

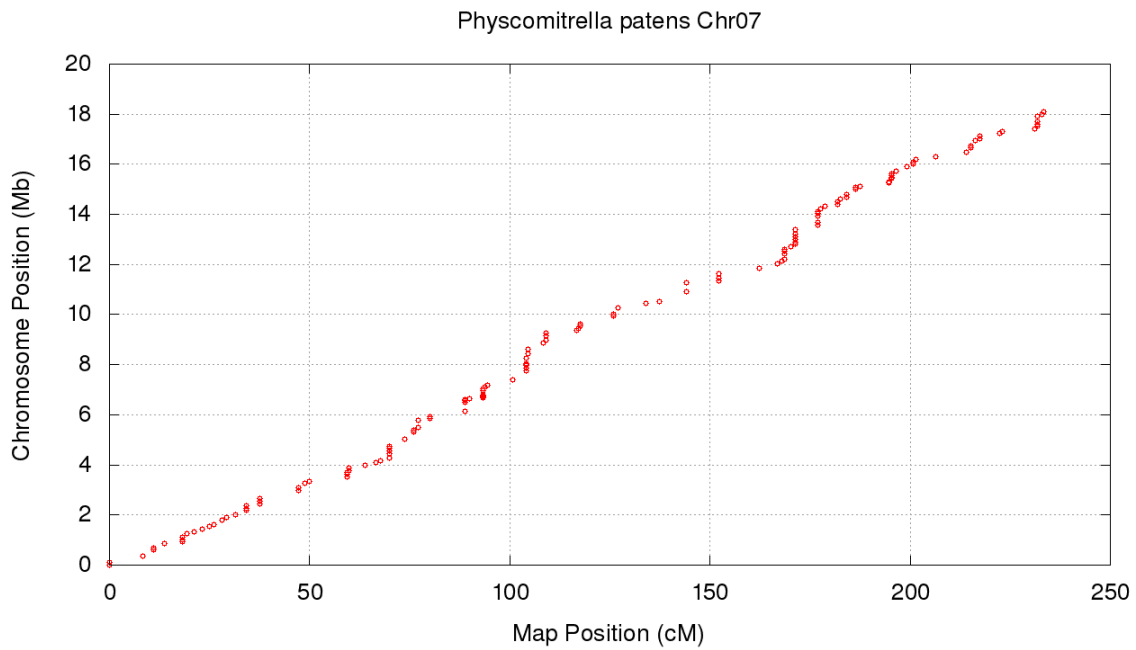


Figure c7: Genetic map marker placements on the *Physcomitrella patens* chromosome 7.

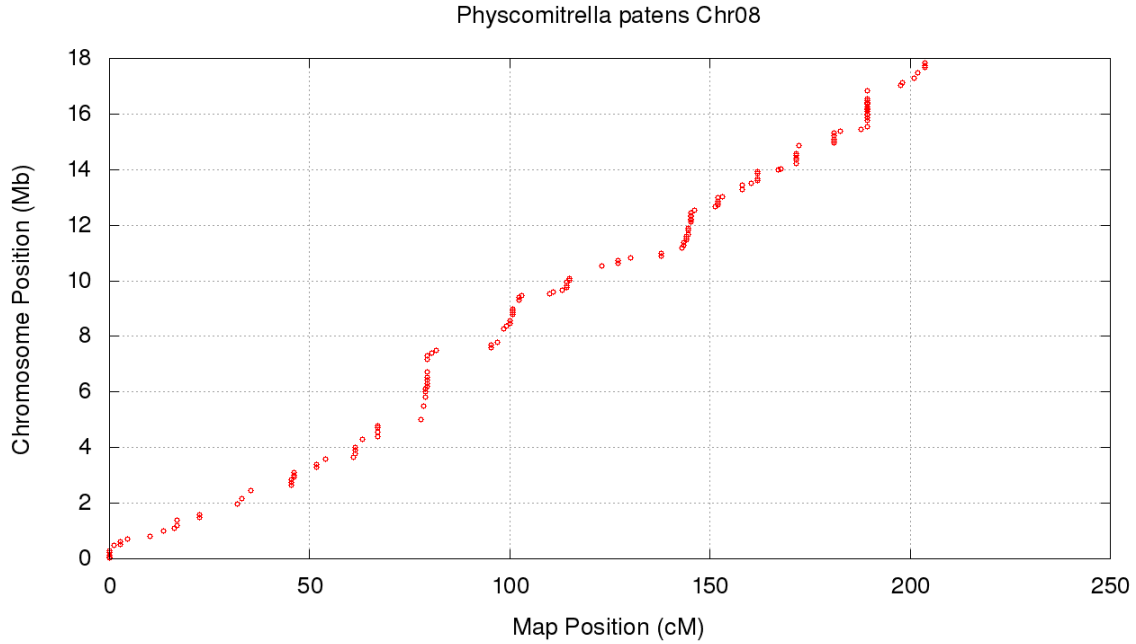


Figure c8: Genetic map marker placements on the *Physcomitrella patens* chromosome 8.

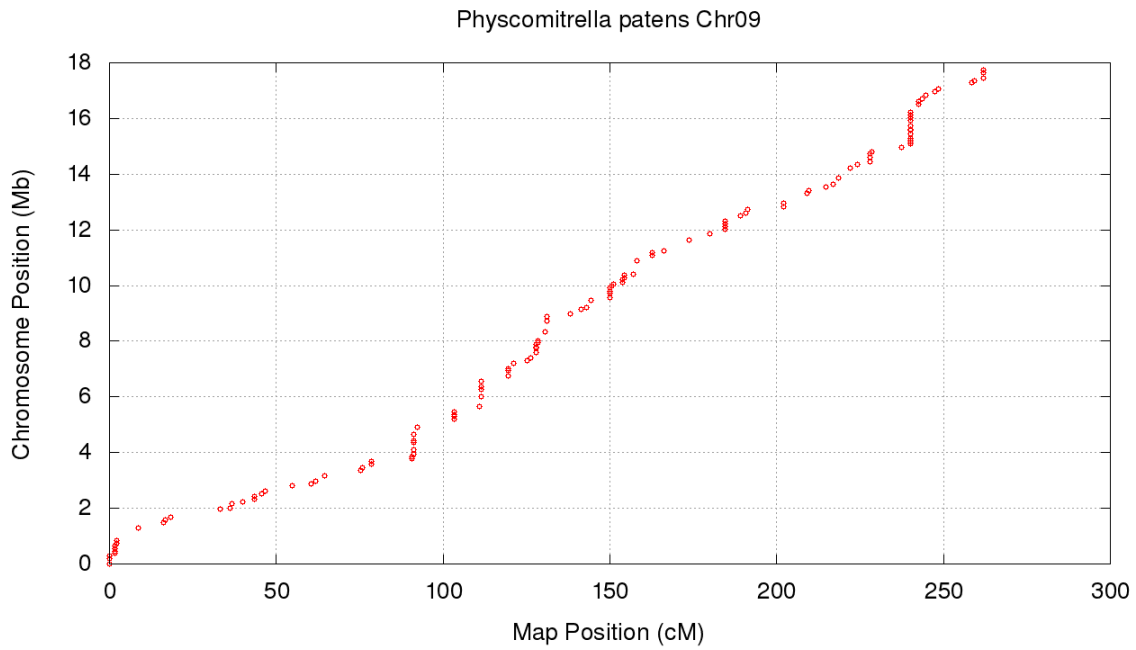


Figure c9: Genetic map marker placements on the *Physcomitrella patens* chromosome 9.

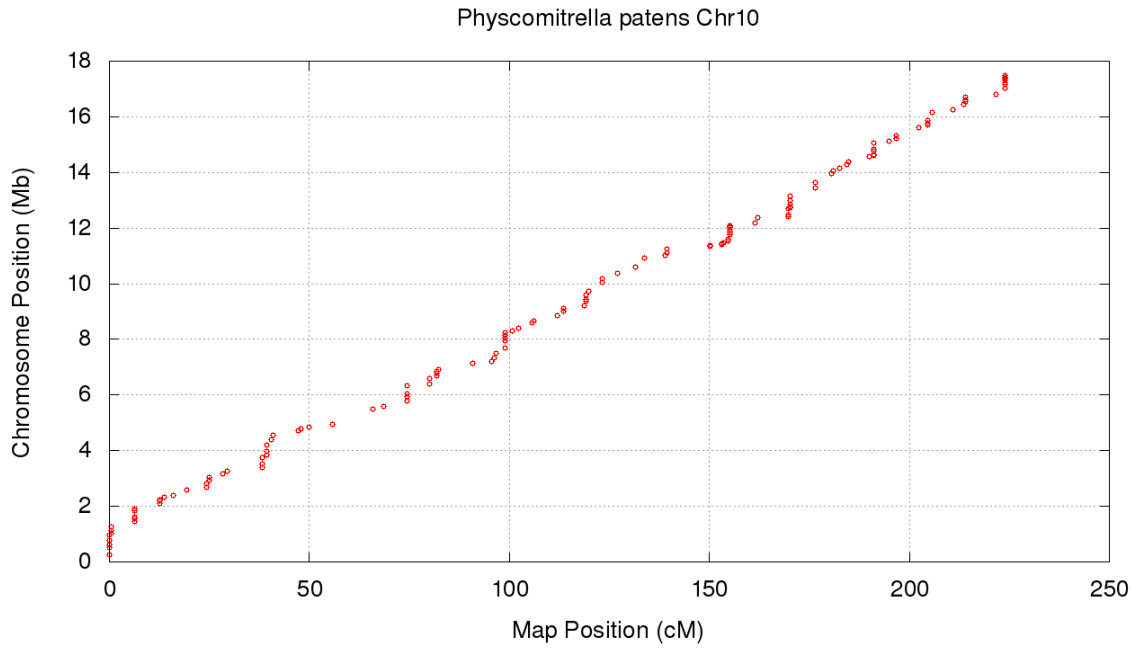


Figure c10: Genetic map marker placements on the *Physcomitrella patens* chromosome 10.

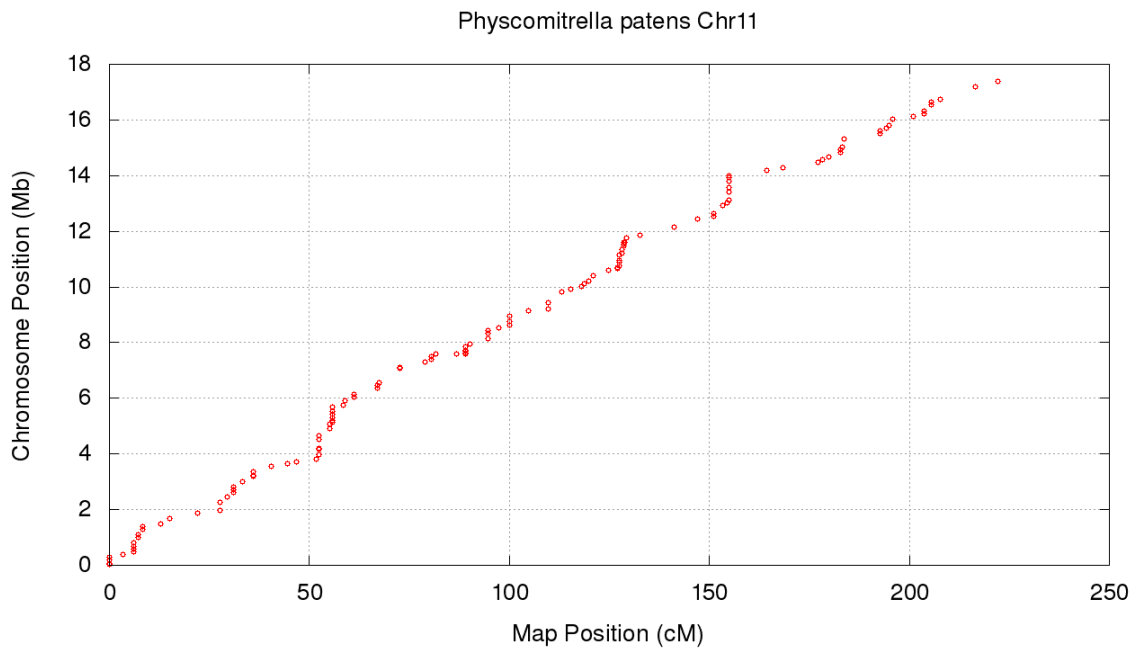


Figure c11: Genetic map marker placements on the *Physcomitrella patens* chromosome 11.

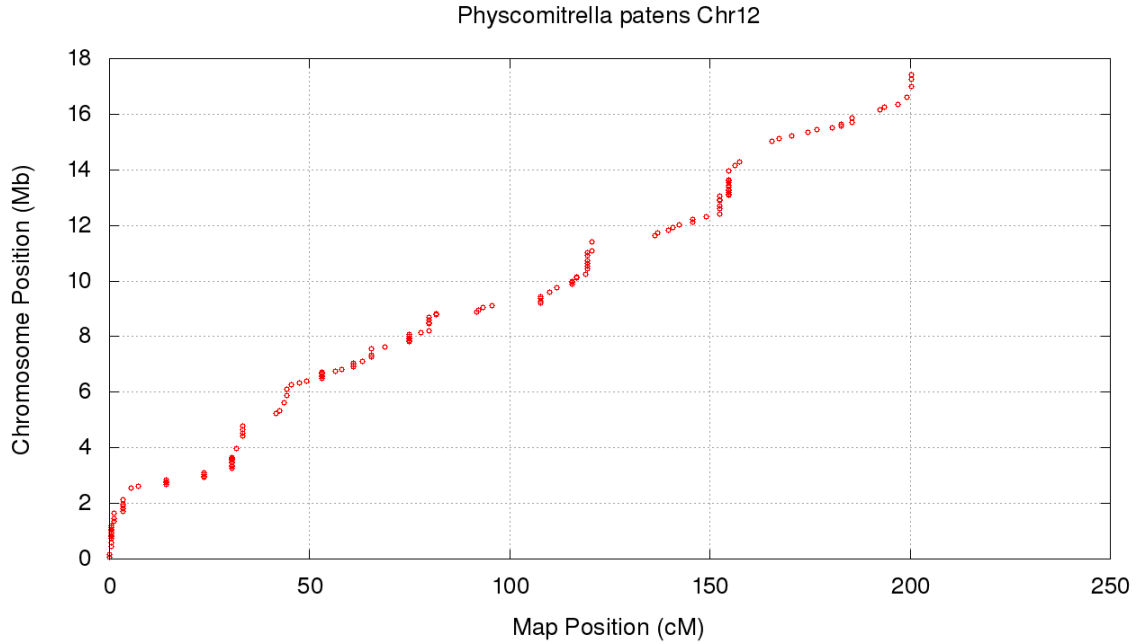


Figure c12: Genetic map marker placements on the *Physcomitrella patens* chromosome 12.

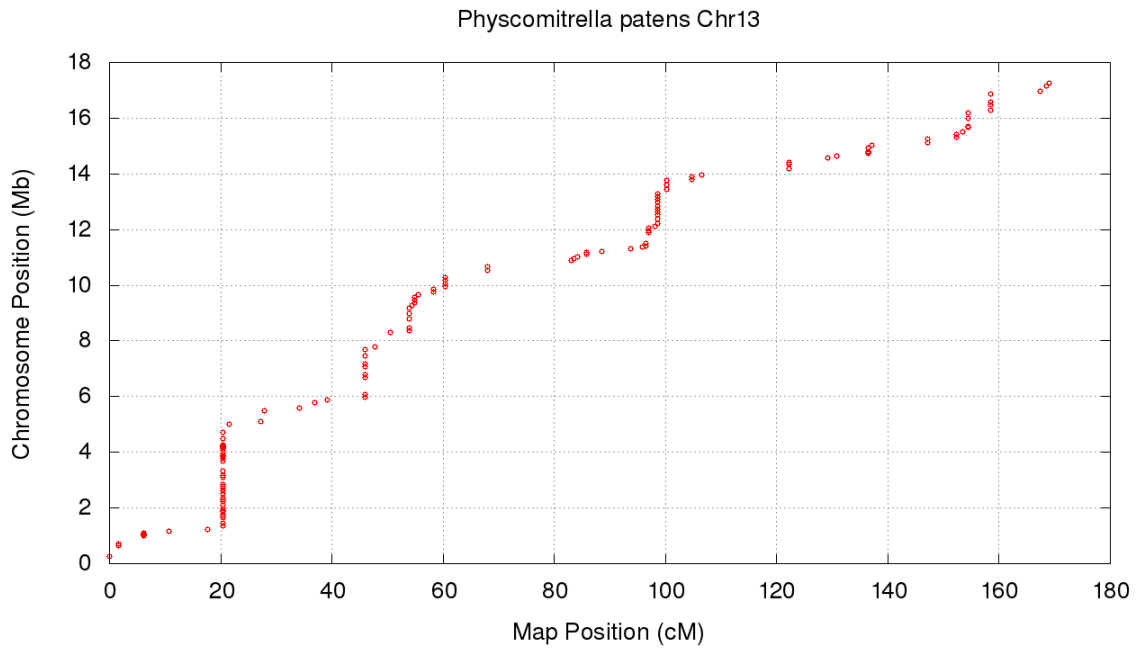


Figure c13: Genetic map marker placements on the *Physcomitrella patens* chromosome 13.

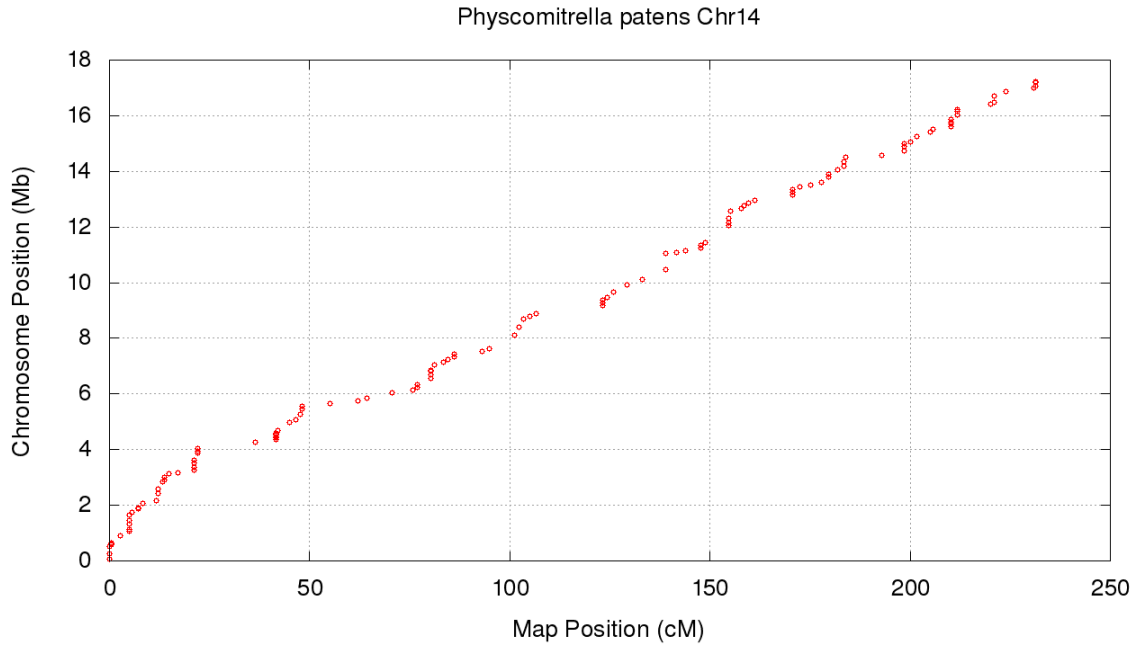


Figure c14: Genetic map marker placements on the *Physcomitrella patens* chromosome 14.

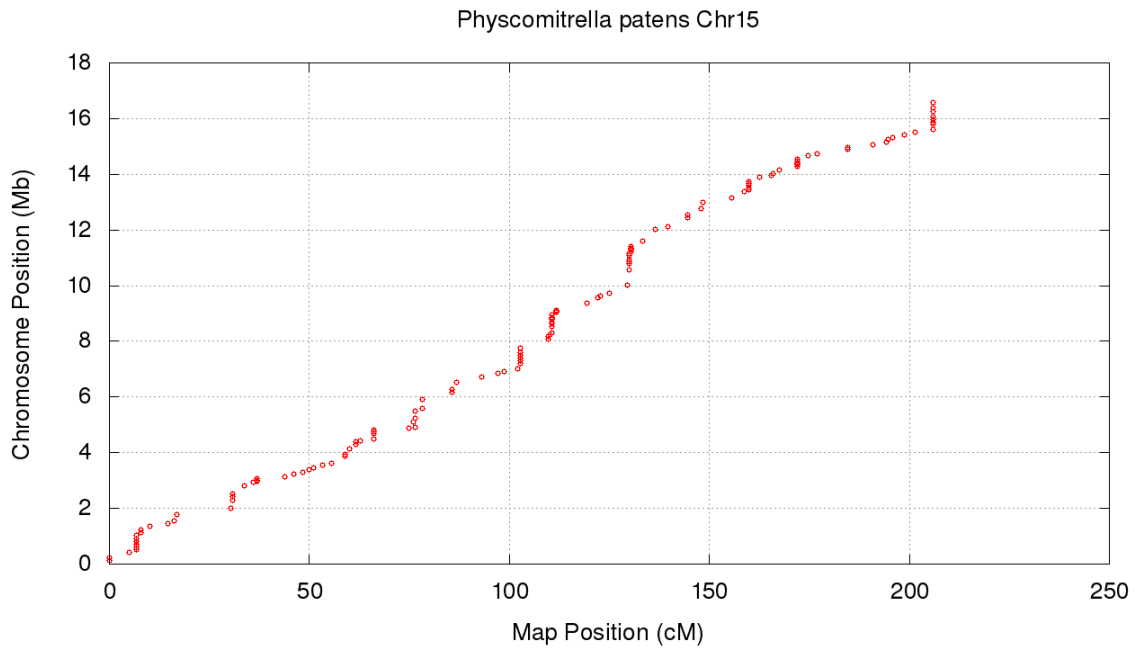


Figure c15: Genetic map marker placements on the *Physcomitrella patens* chromosome 15.

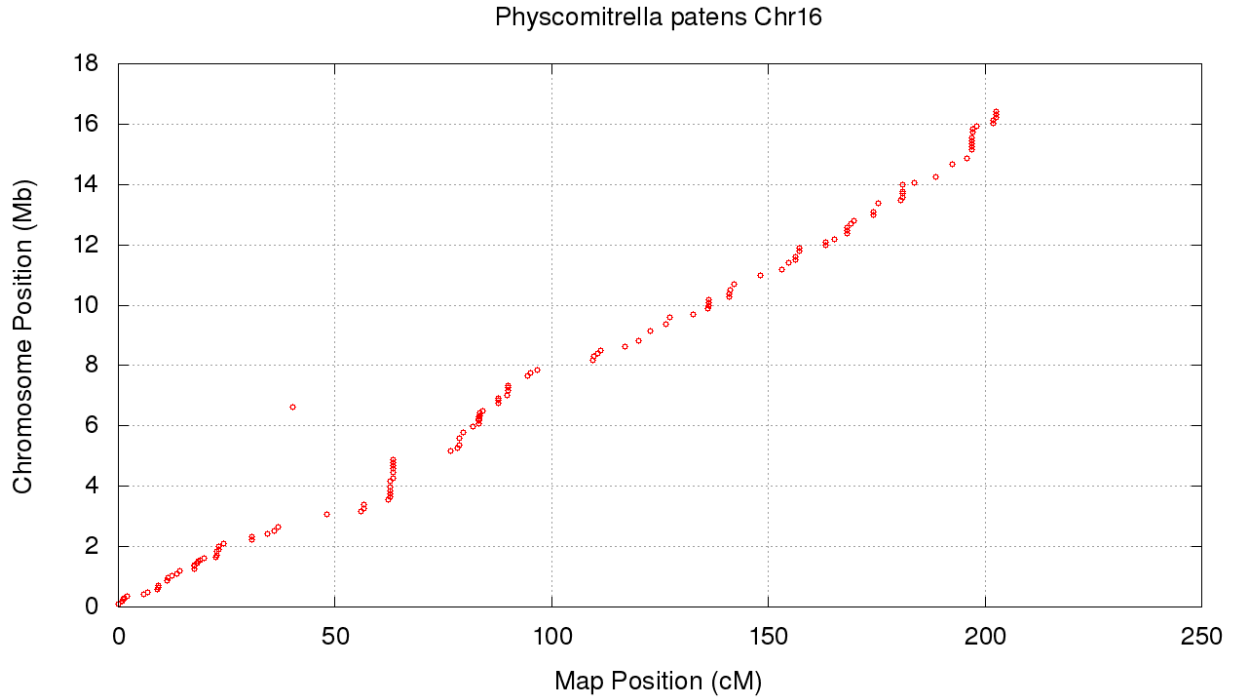


Figure c16: Genetic map marker placements on the *Physcomitrella patens* chromosome 16.

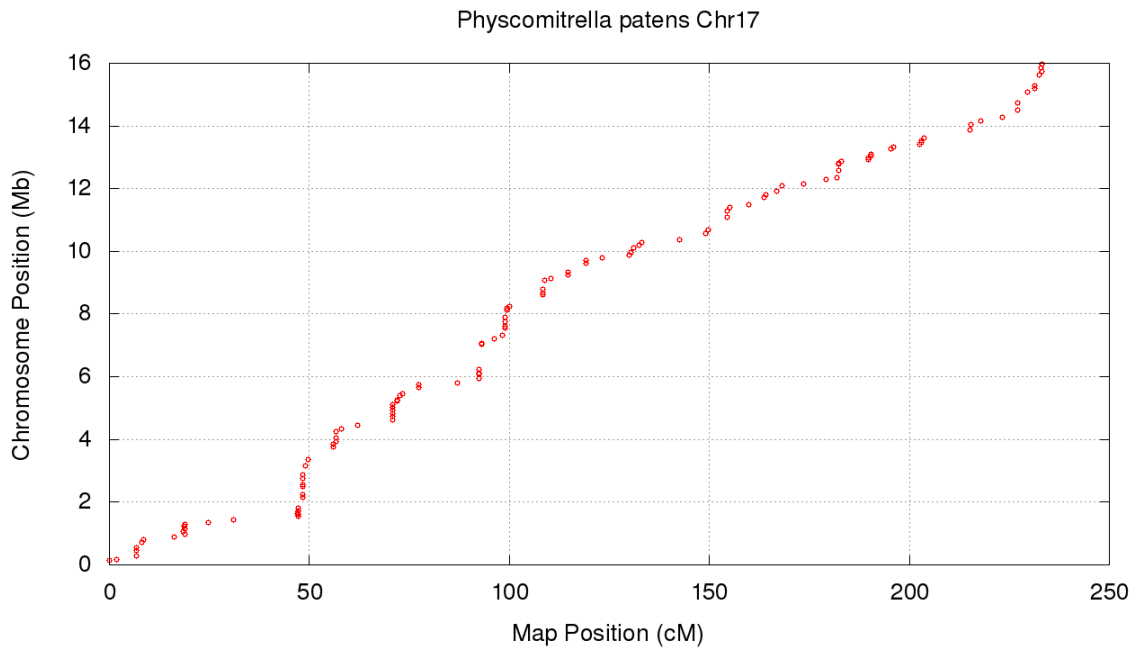


Figure c17: Genetic map marker placements on the *Physcomitrella patens* chromosome 17.

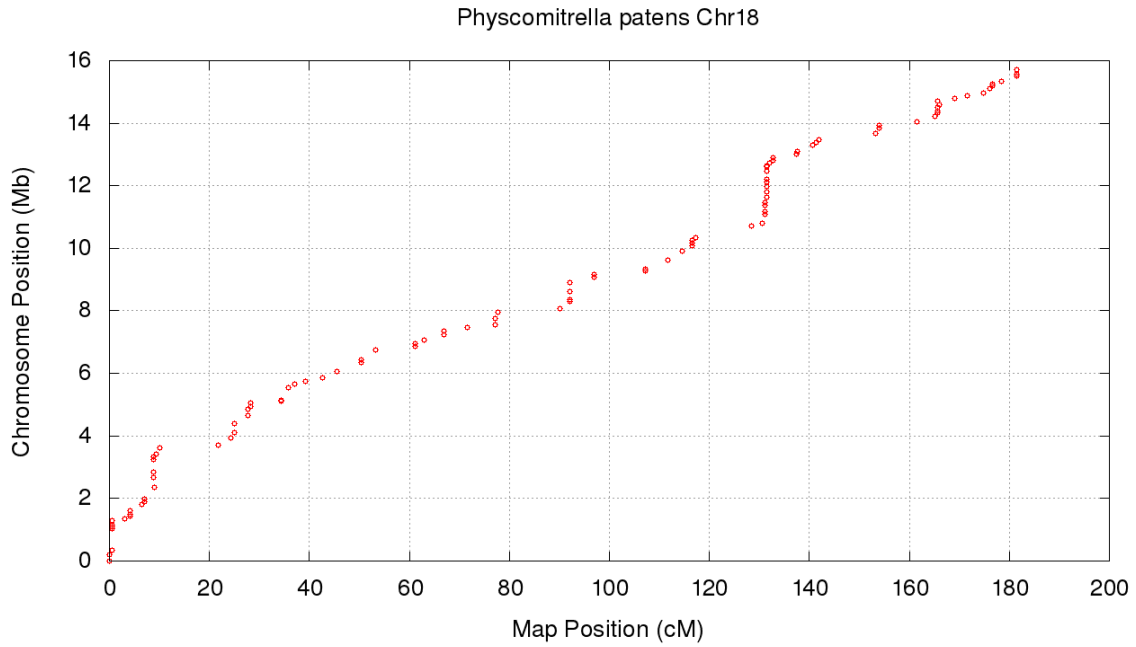


Figure c18: Genetic map marker placements on the *Physcomitrella patens* chromosome 18.

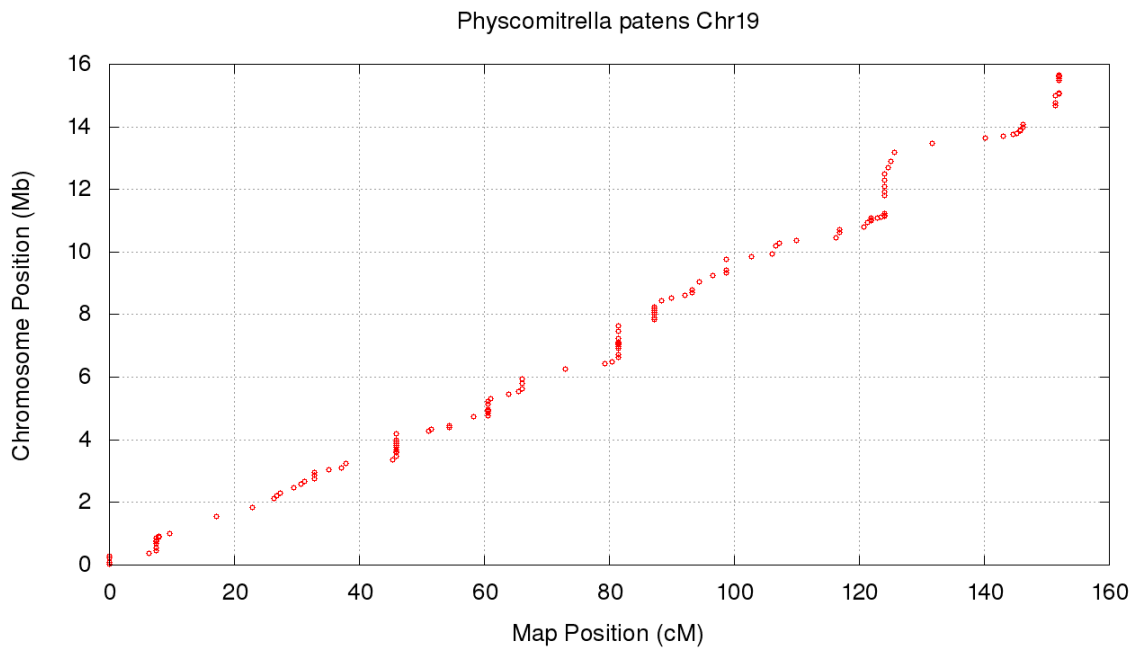


Figure c19: Genetic map marker placements on the *Physcomitrella patens* chromosome 19.

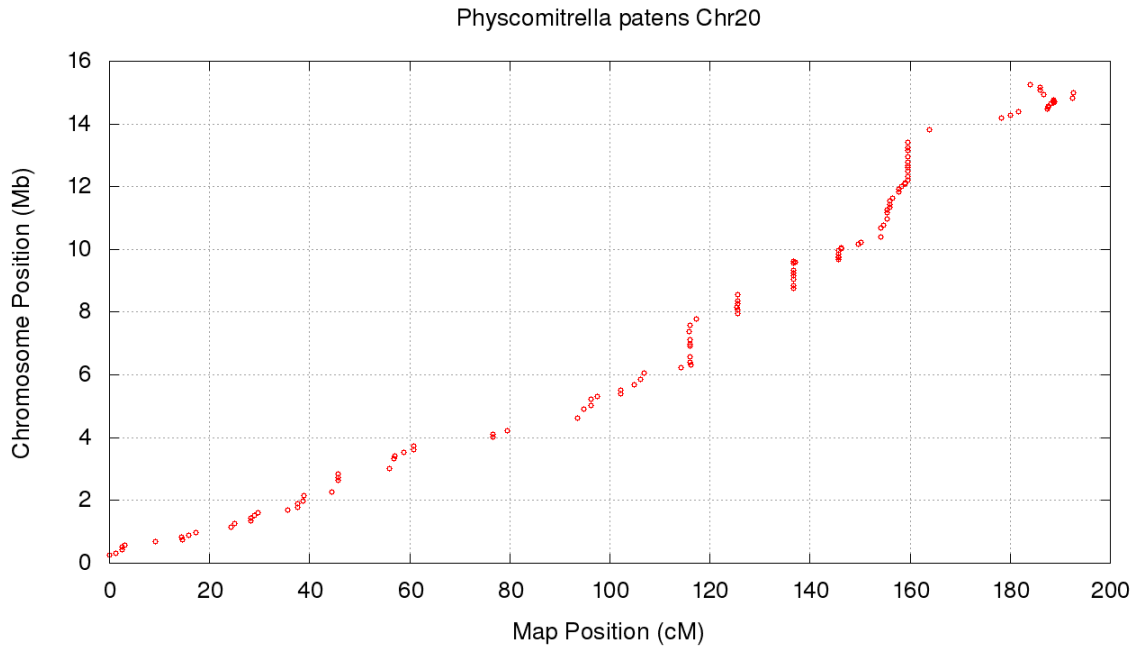


Figure c20: Genetic map marker placements on the *Physcomitrella patens* chromosome 20.

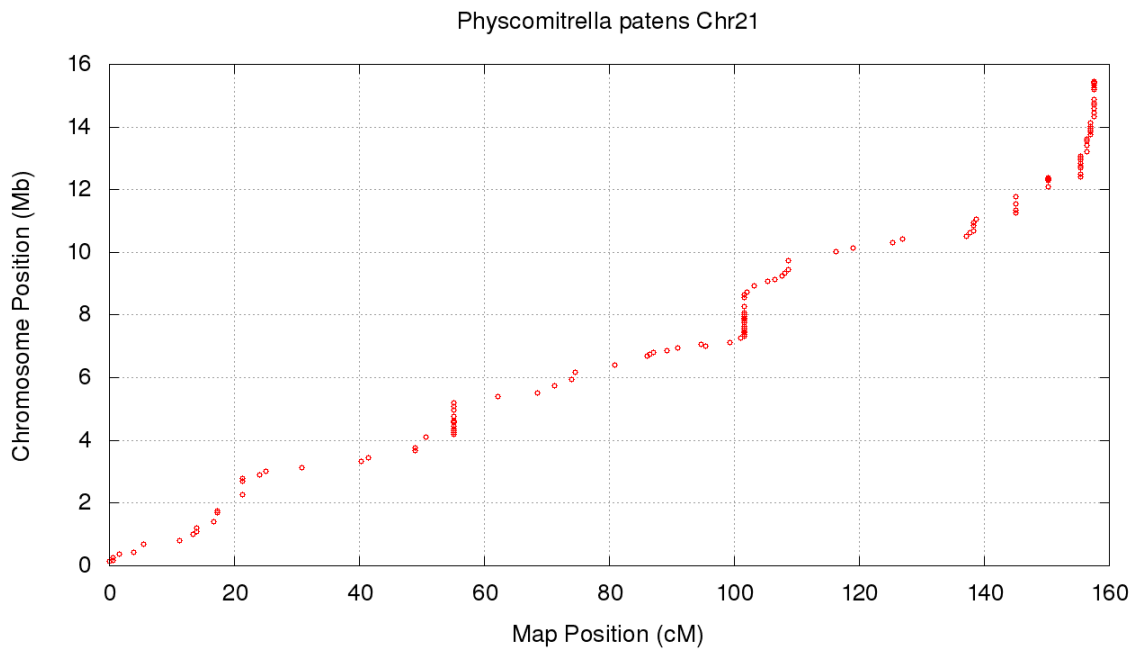


Figure c21: Genetic map marker placements on the *Physcomitrella patens* chromosome 21.

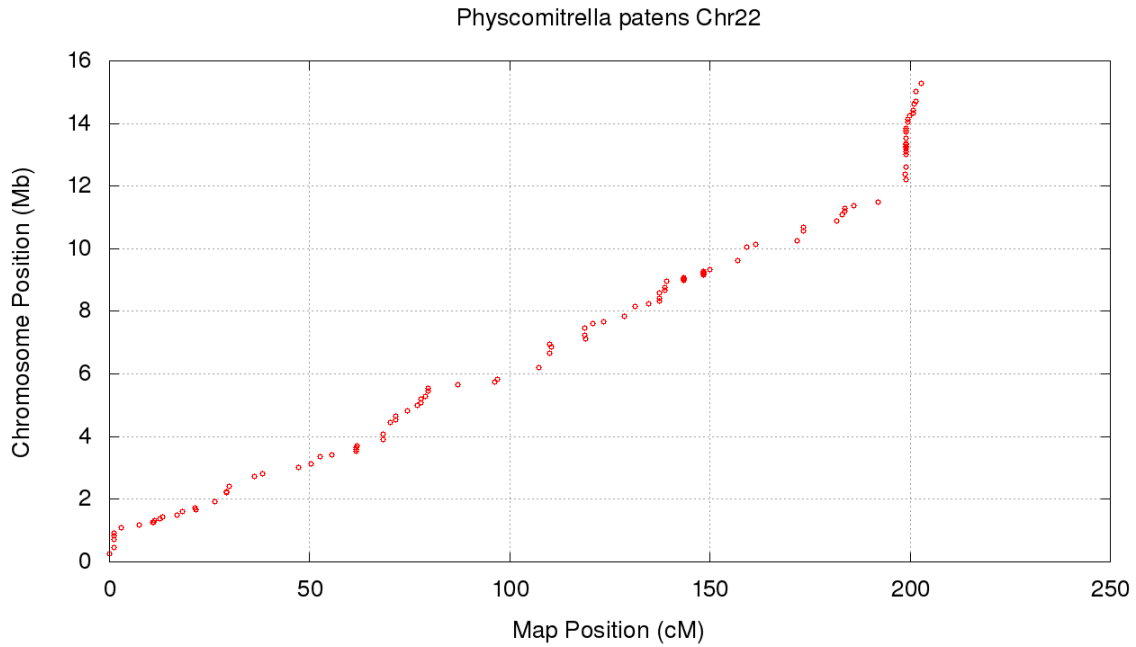


Figure c22: Genetic map marker placements on the *Physcomitrella patens* chromosome 22.

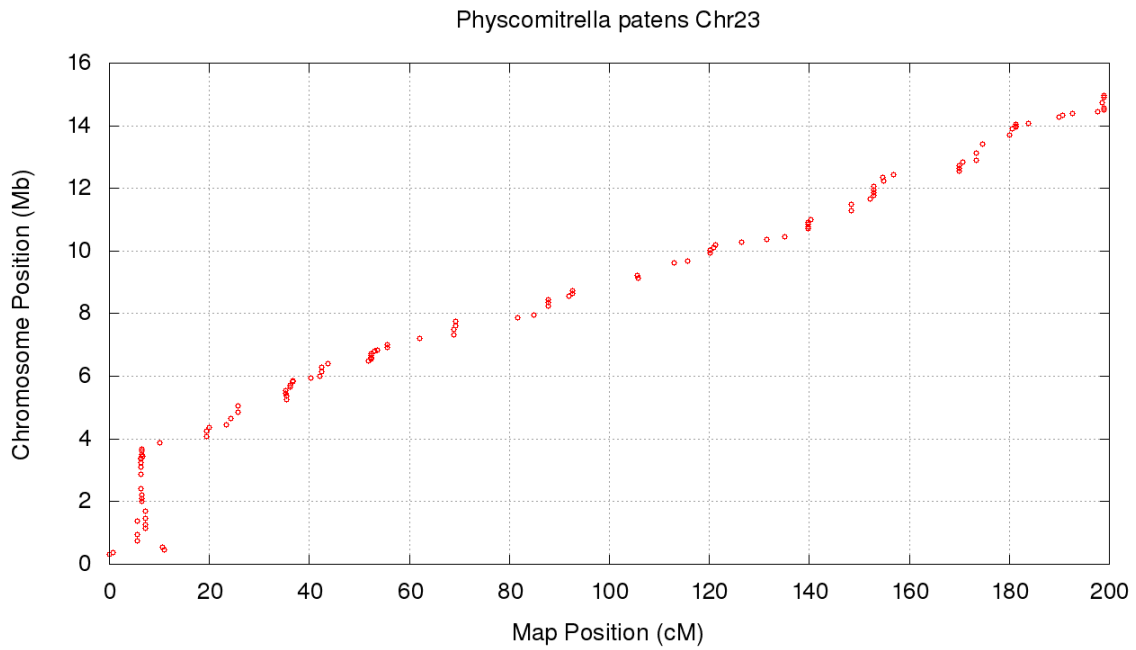


Figure c23: Genetic map marker placements on the *Physcomitrella patens* chromosome 23.

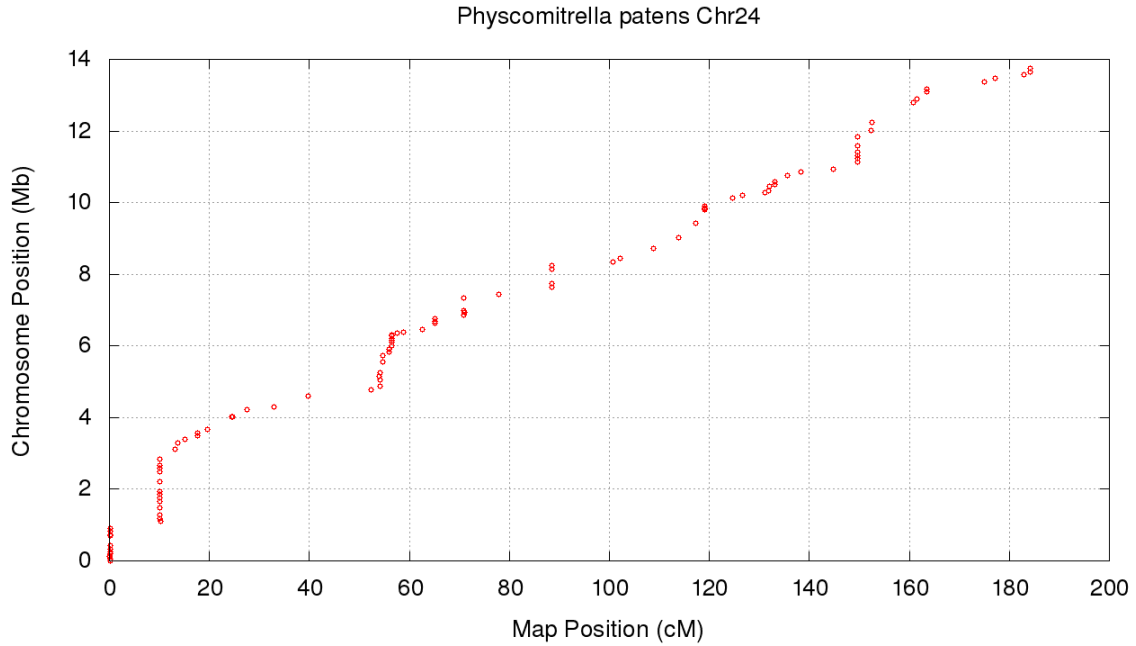


Figure c24: Genetic map marker placements on the *Physcomitrella patens* chromosome 24.

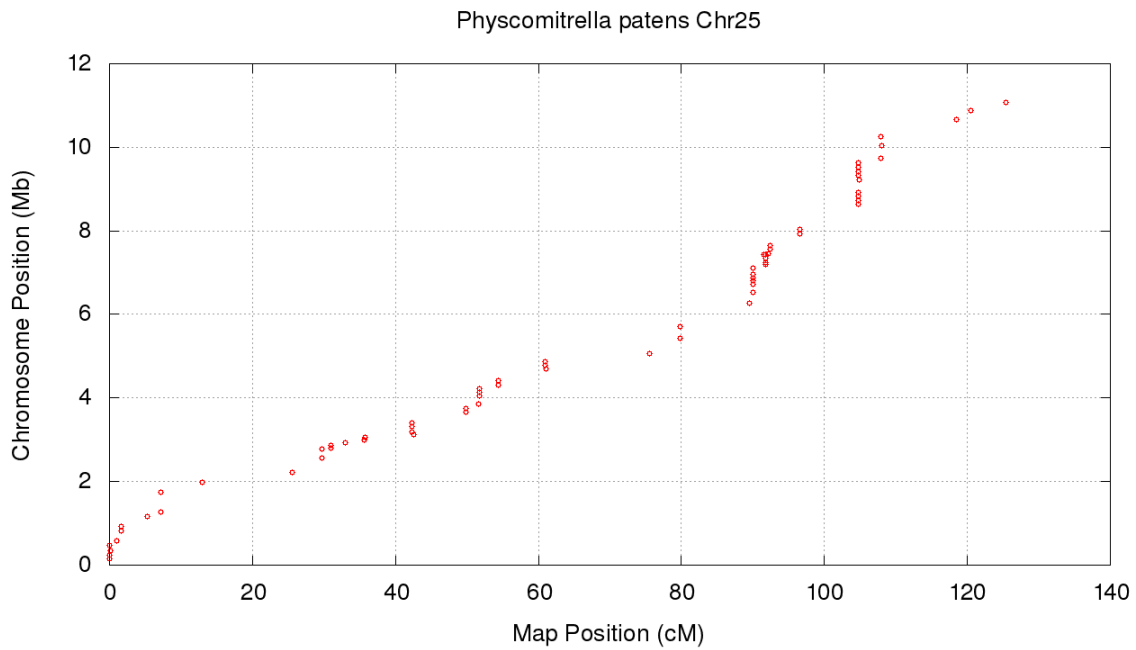


Figure c25: Genetic map marker placements on the *Physcomitrella patens* chromosome 25.

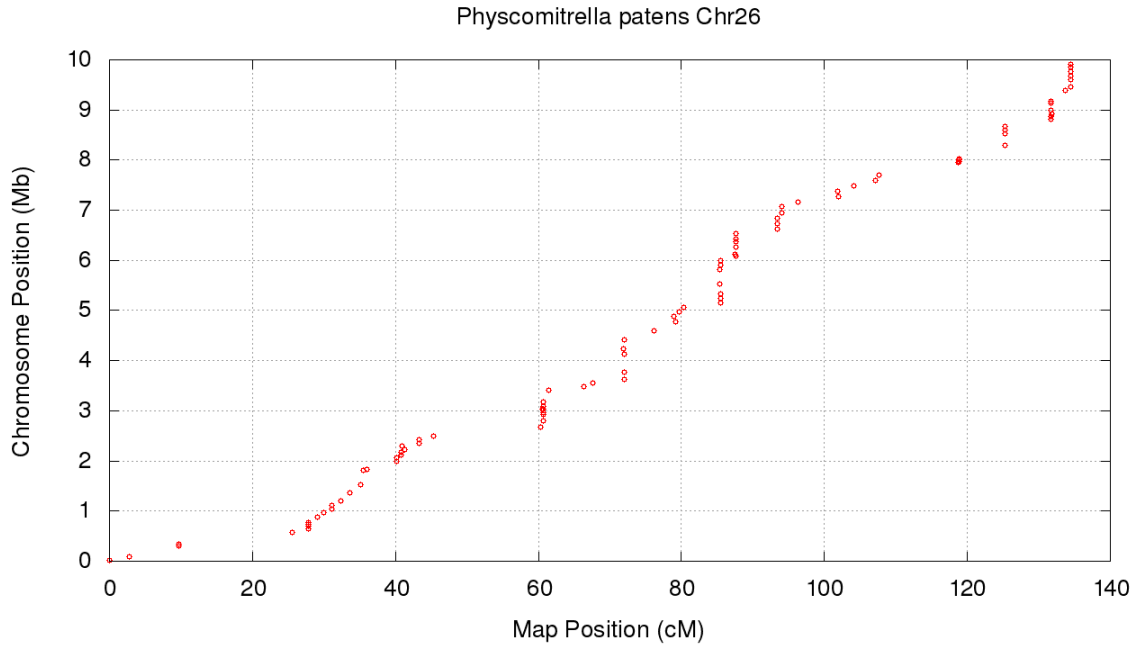


Figure c26: Genetic map marker placements on the *Physcomitrella patens* chromosome 26.

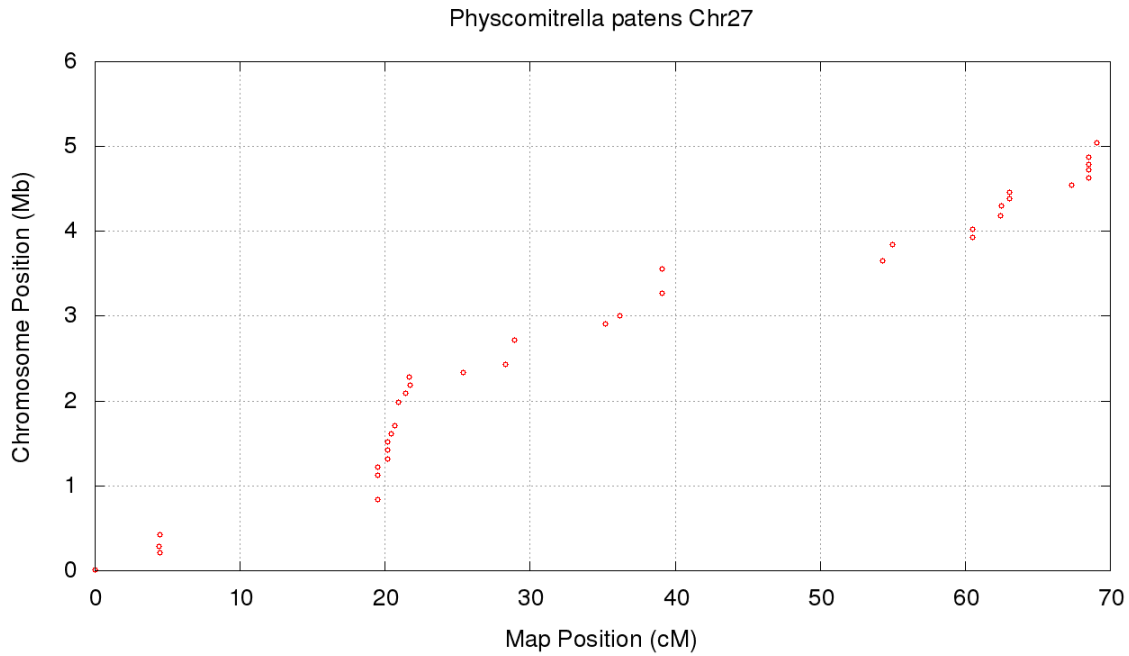


Figure c27: Genetic map marker placements on the *Physcomitrella patens* chromosome 27.

The *P. patens* V3 genome – supplement

Methylation plots for TE subtypes.

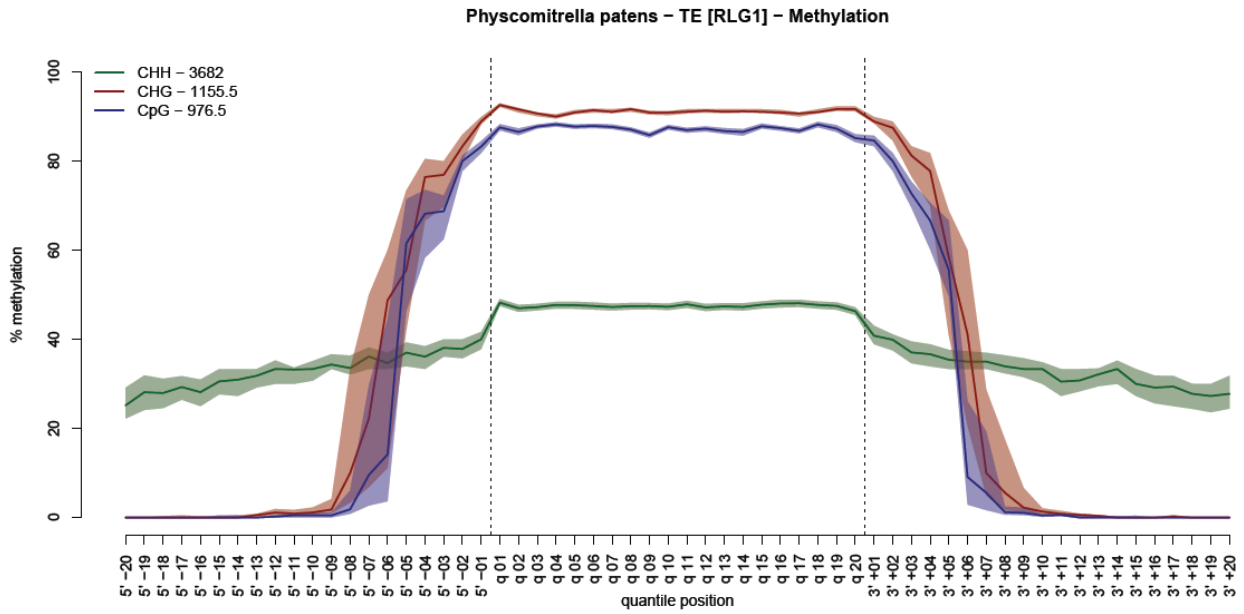


Figure m1: RLG1

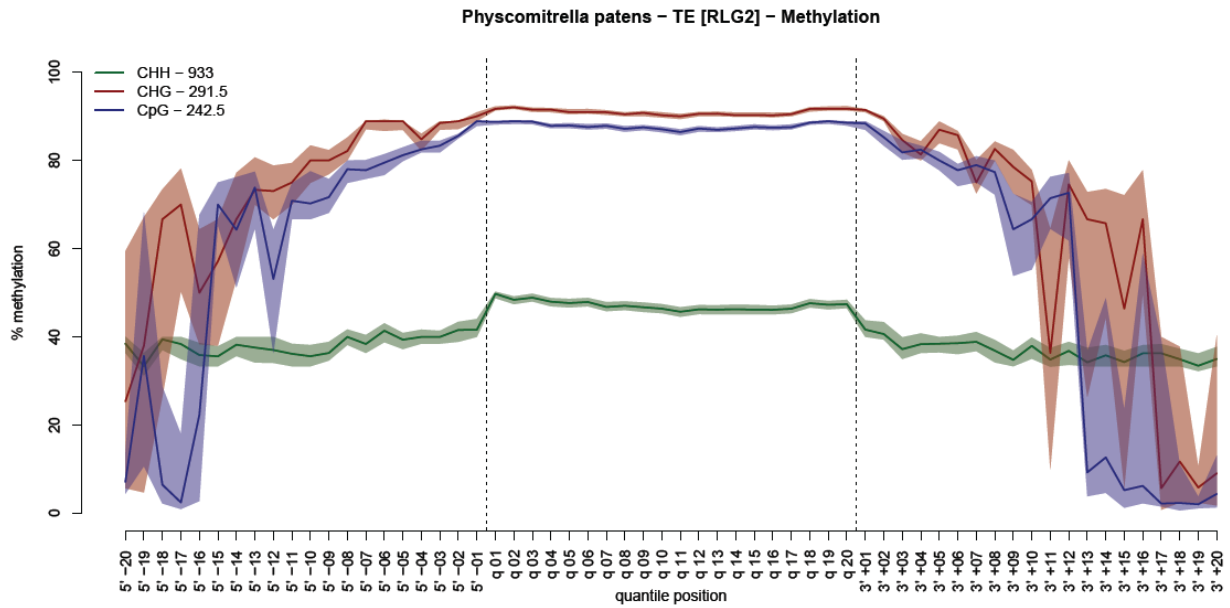


Figure m2: RLG2

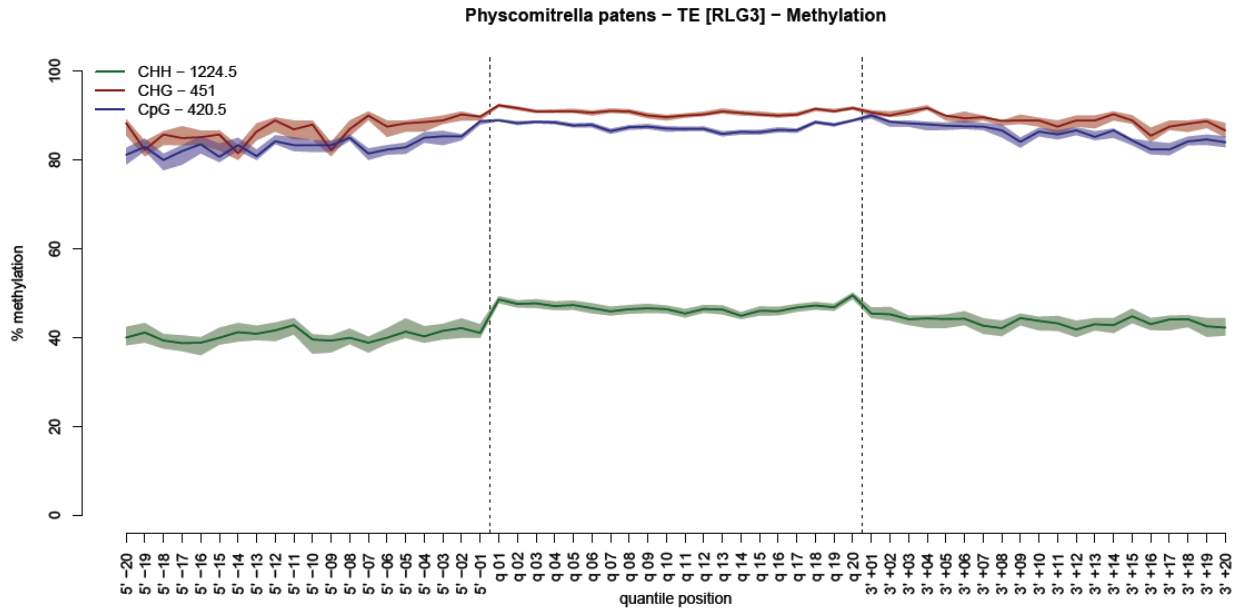


Figure m3: RLG3

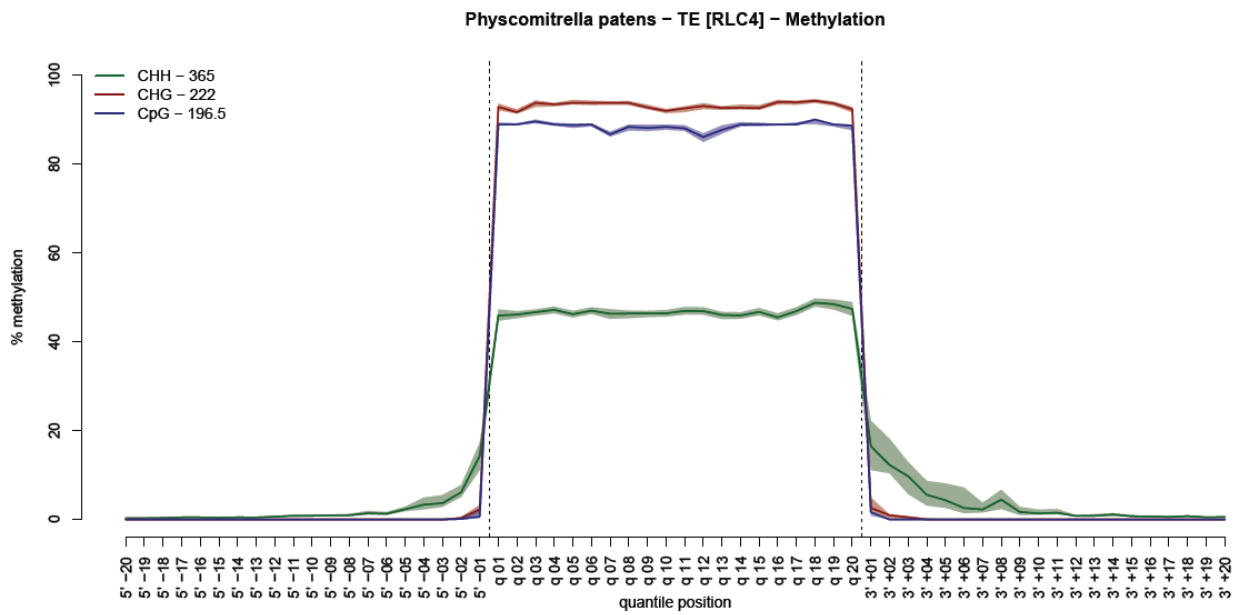


Figure m4: RLC4

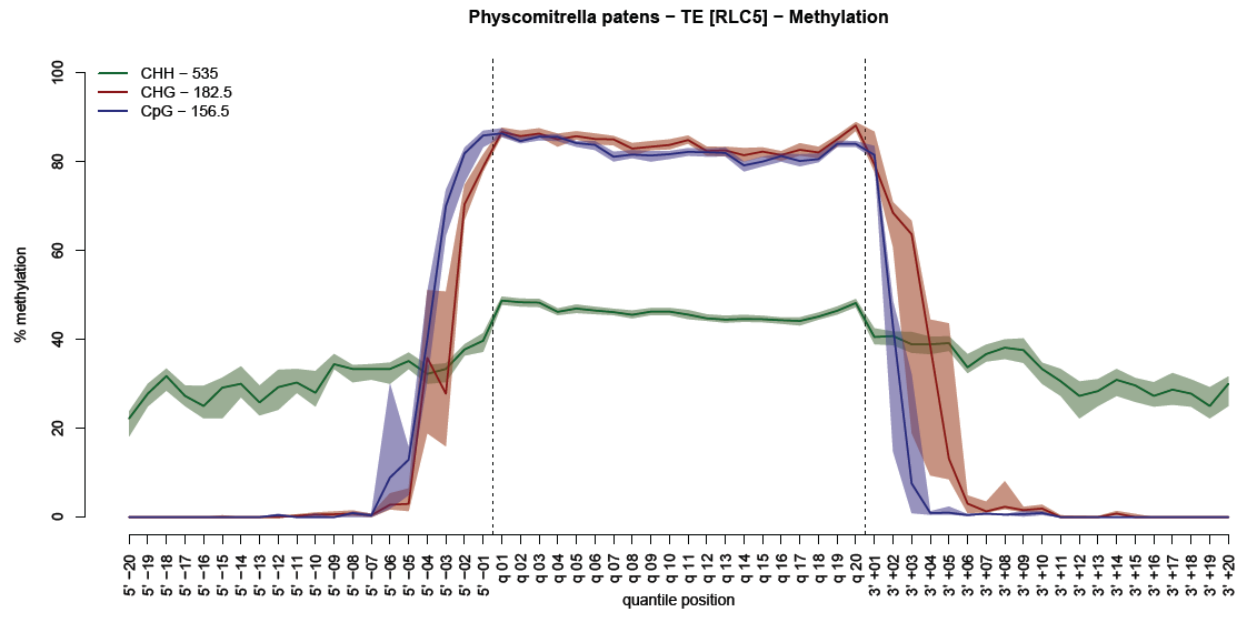


Figure m5: RLC5

The *P. patens* V3 genome – supplement

Histone 3 mark distribution in genes and TEs

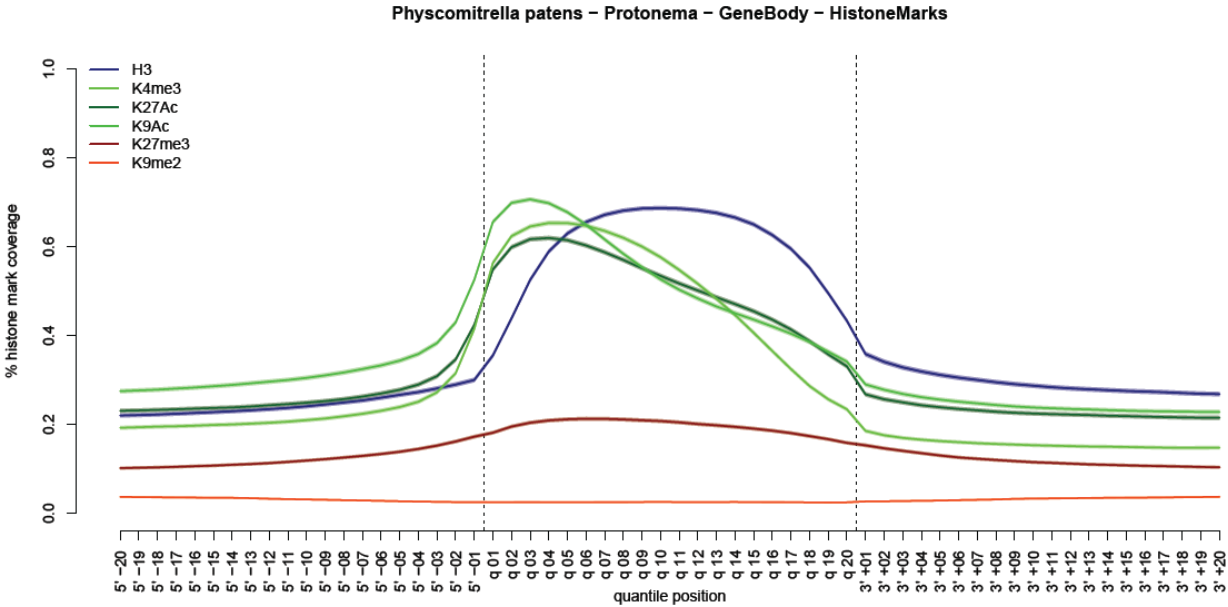


Figure h1: Protonema, genes

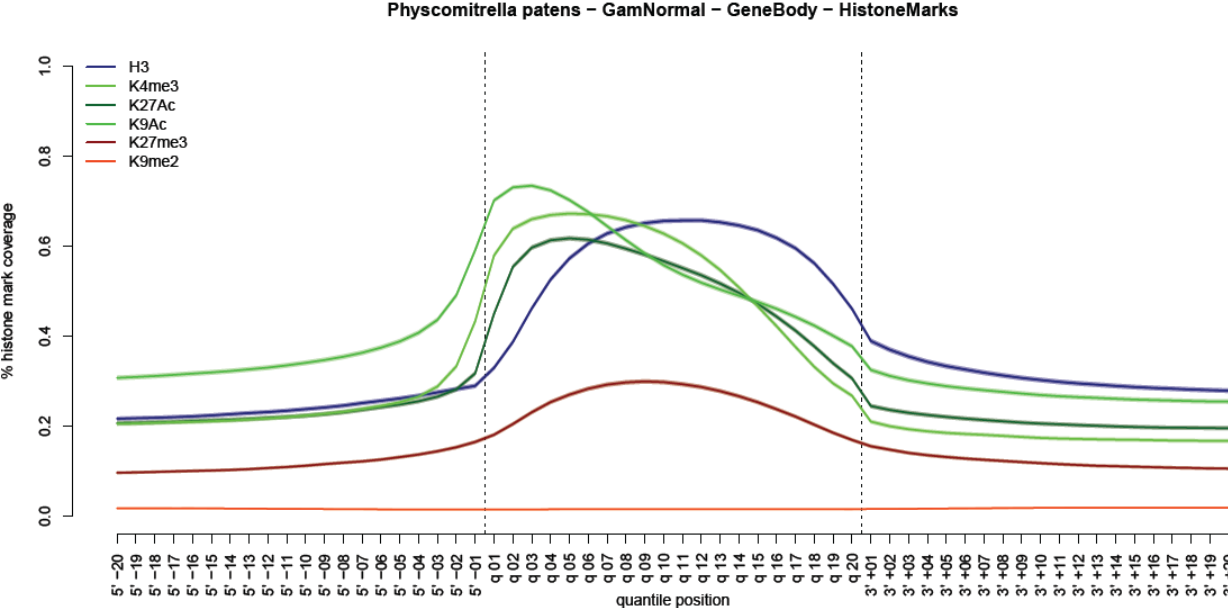


Figure h2: Gametophores, genes

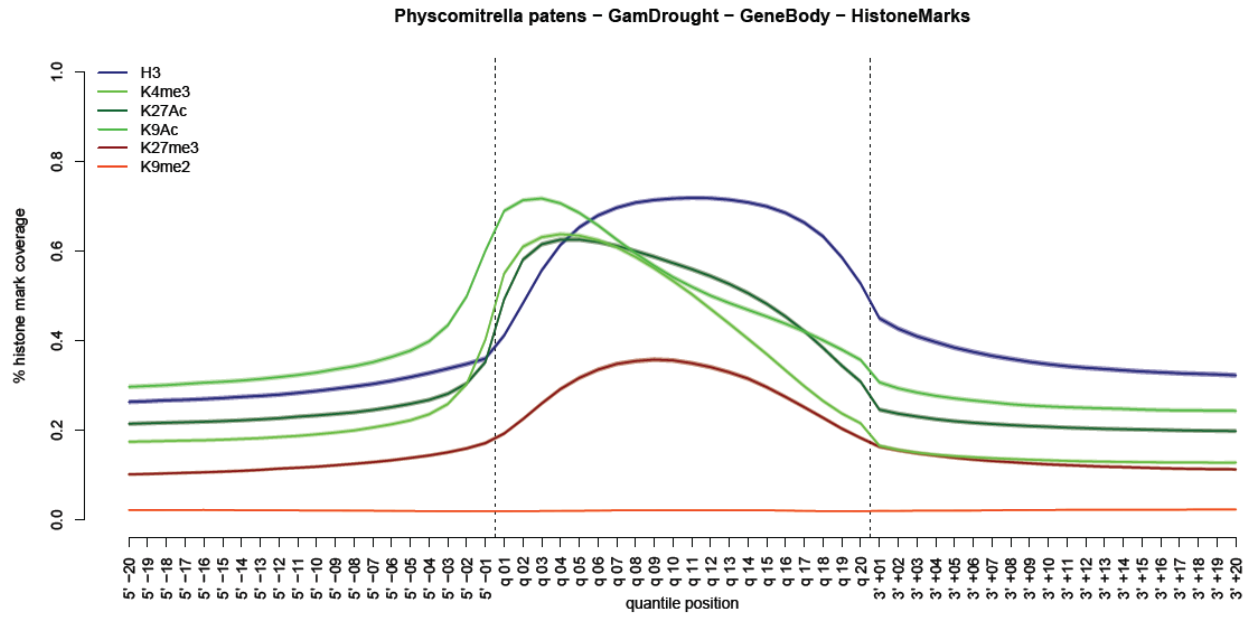


Figure h3: Drought-stressed gametophores, genes

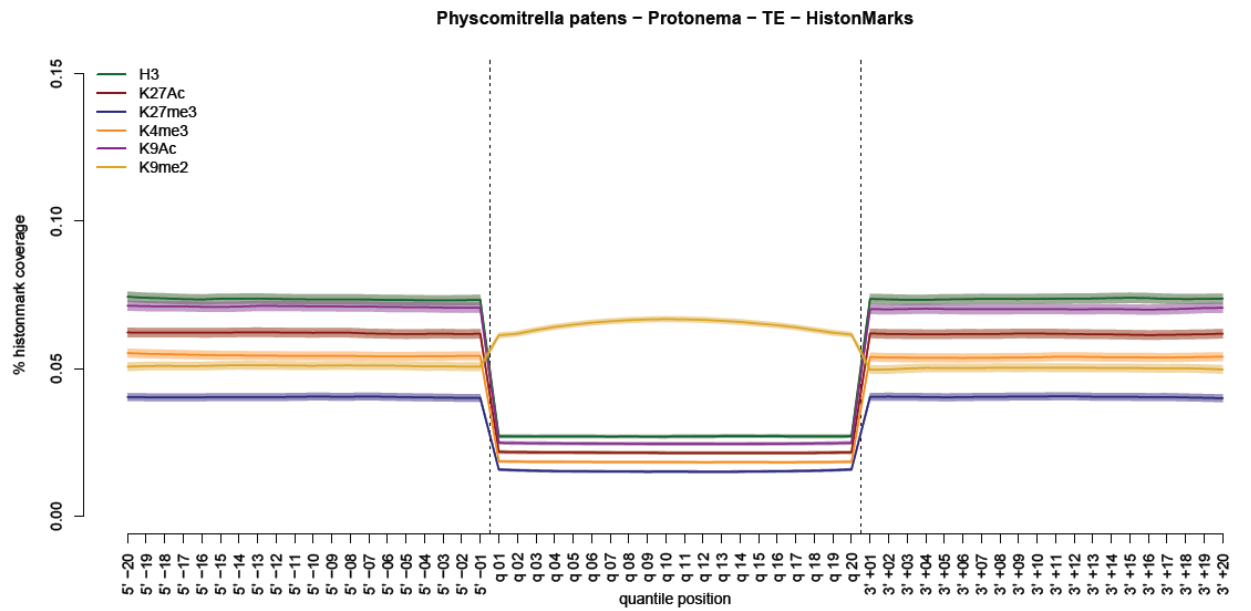


Figure h4: Protonema, TEs

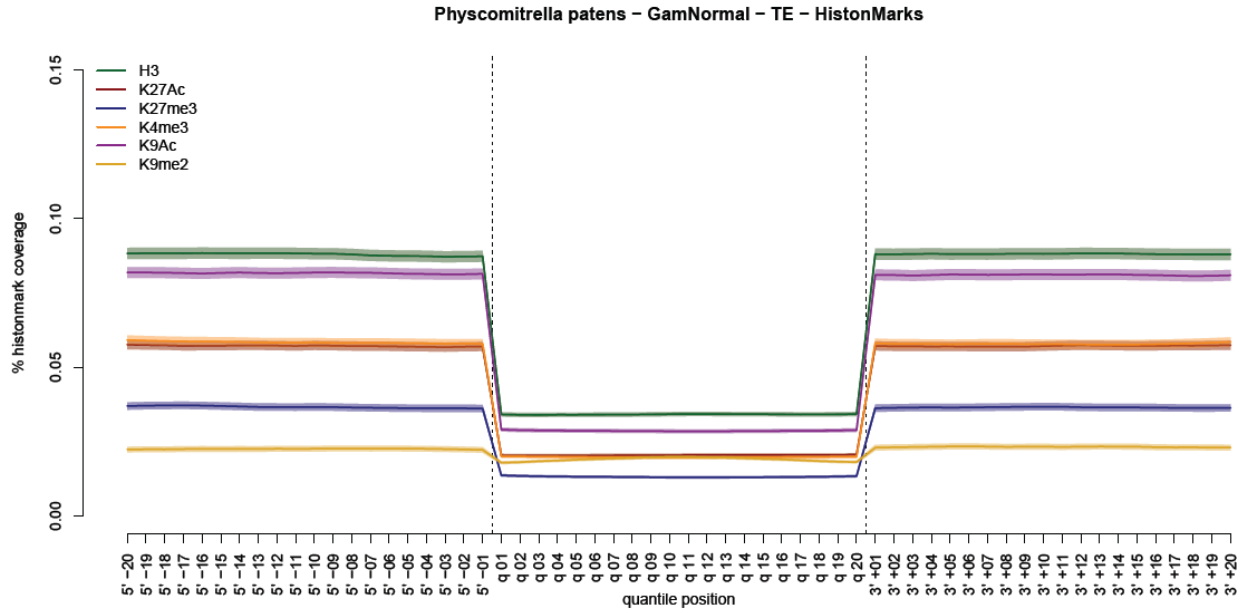


Figure h5: Gametophores, TEs

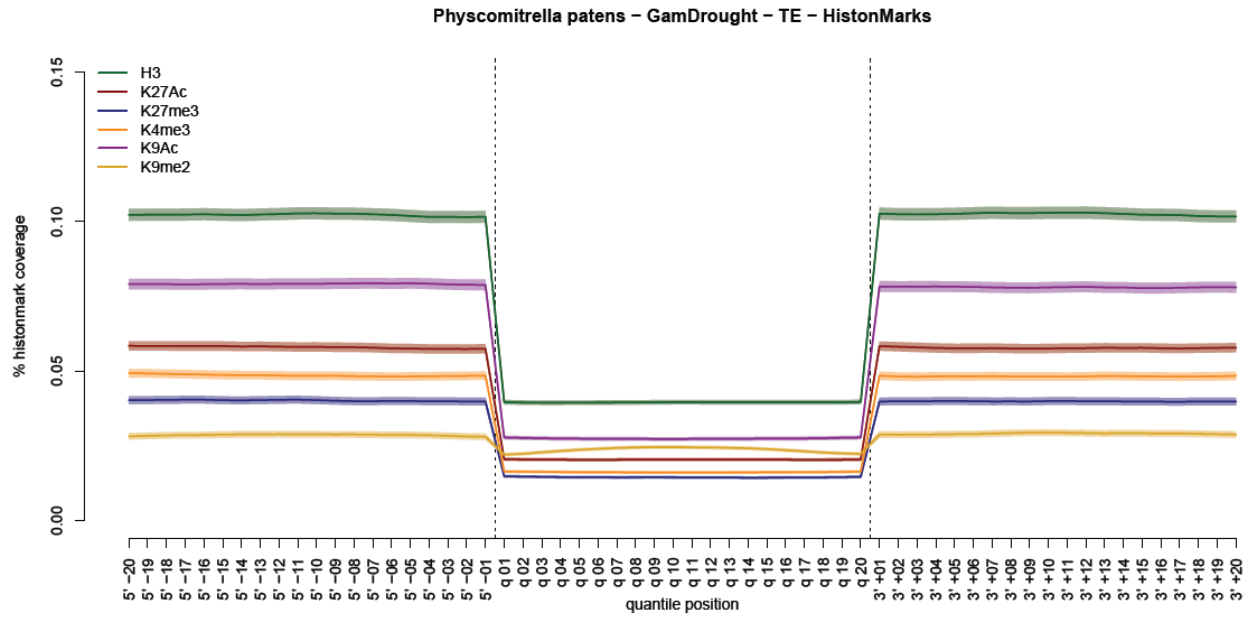


Figure h6: Drought-stressed gametophores, TEs

Phenotypic differences of Gransden (Gd), Villersexel (Vx), Reute (Re) and Kaskaskia (Ks).

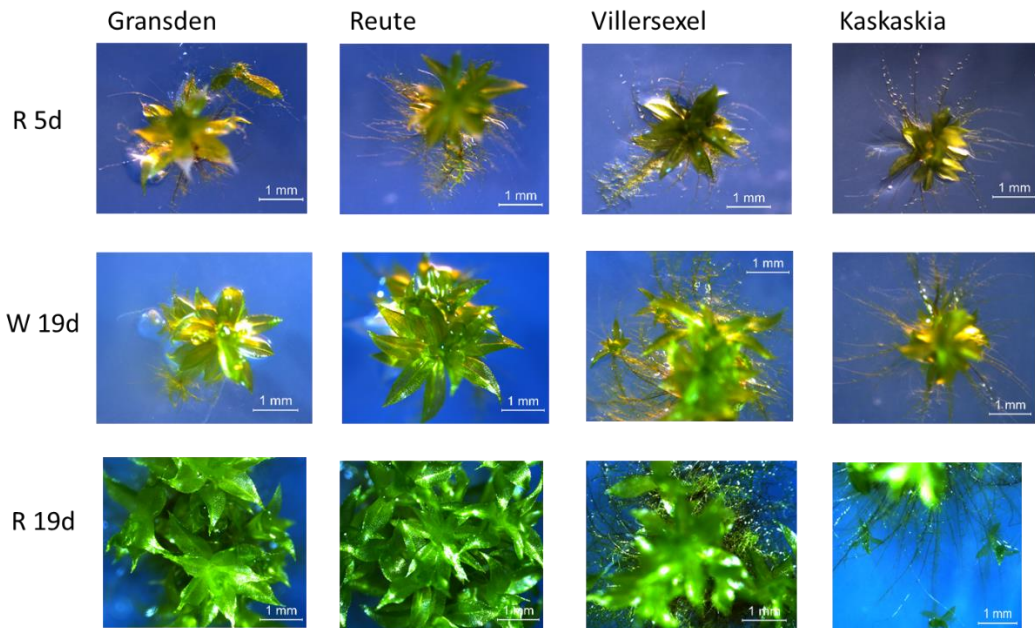
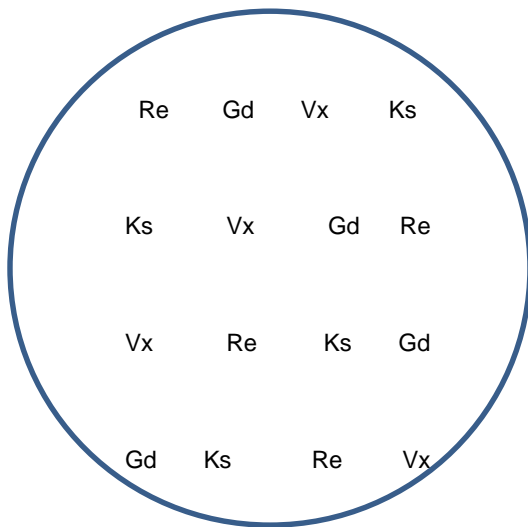


Fig. p1: Comparison of light-induced phenotypes.

Representative images are shown, for method see below. Under white (W) and red (R) light for 19d, Vx and Ks exhibit more protonemal growth than Gd and Re. Gd and Re exhibit more gametophores than Vx and Ks under these conditions. Protonemal growth is more star-shaped at 5d R in Vx and Ks than in Gd and Re. Interestingly, these patterns do not correlate with geographic distance: Vx and Re are closest, followed by Gd.

Method:

Individual juvenile gametophores of each accession were placed in the following pattern on 9 cm petri dishes:



Plates were placed in a dark room at RT under LED light (red light 656nm). Light intensity was adjusted to 85 μ mol. Images were taken under a stereo microscope 5 and 19 days after inoculation.

31.3.2014

Probe 1

48h exp.

30 nt

20 nt

10 nt

WT protonema

dcl10-110

dcl3-5

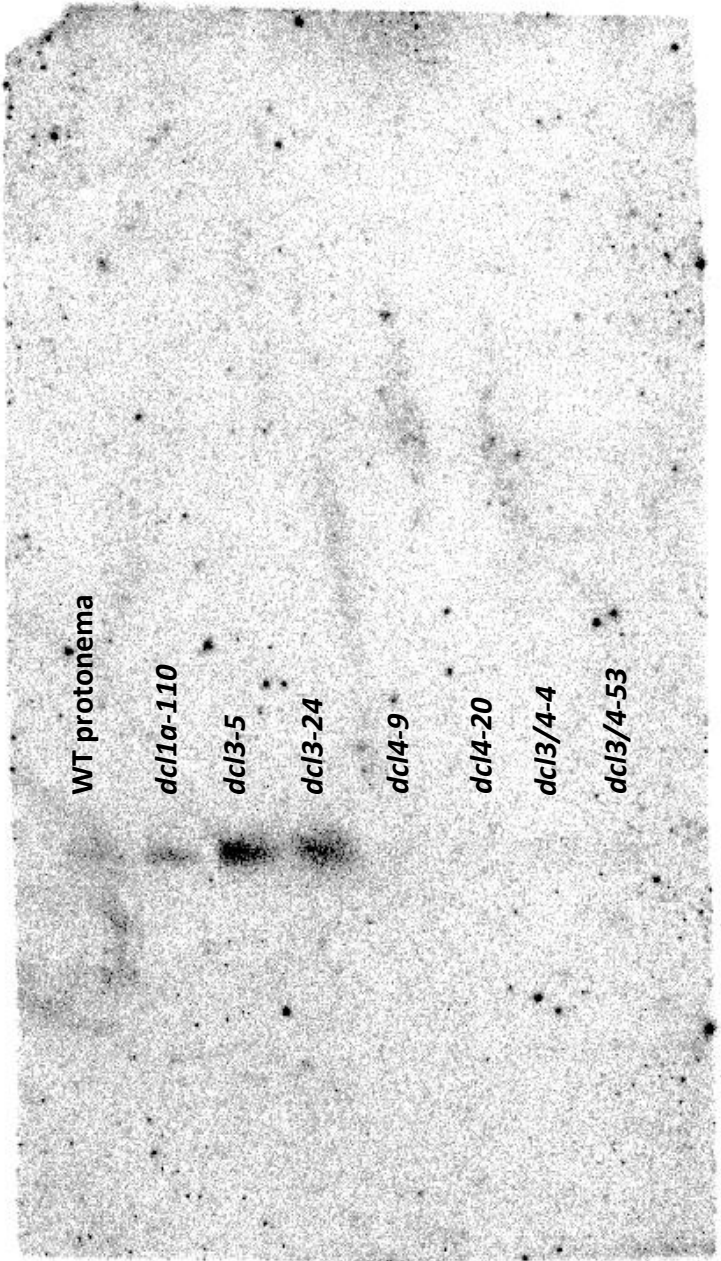
dcl3-24

dcl4-9

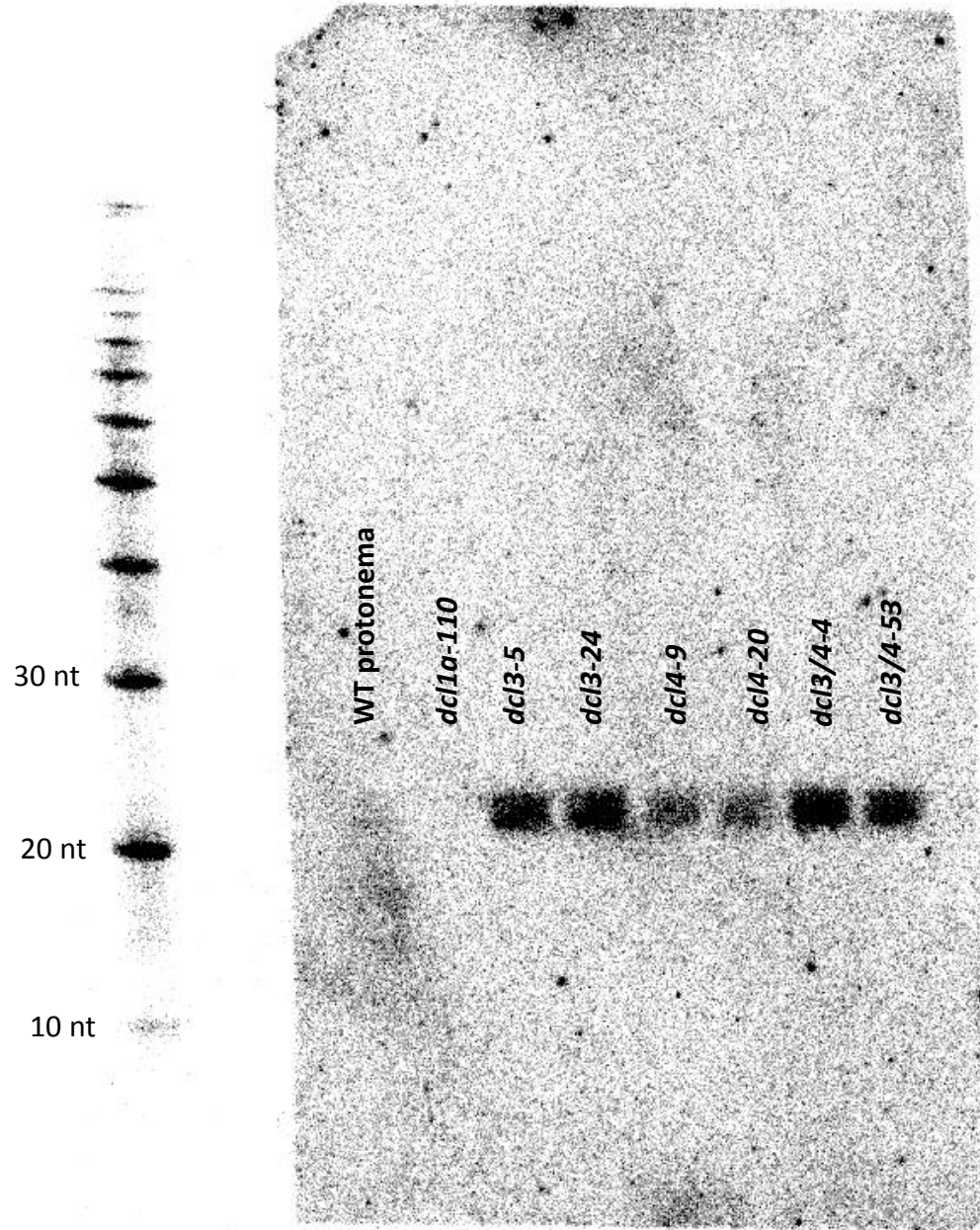
dcl4-20

dcl3/4-4

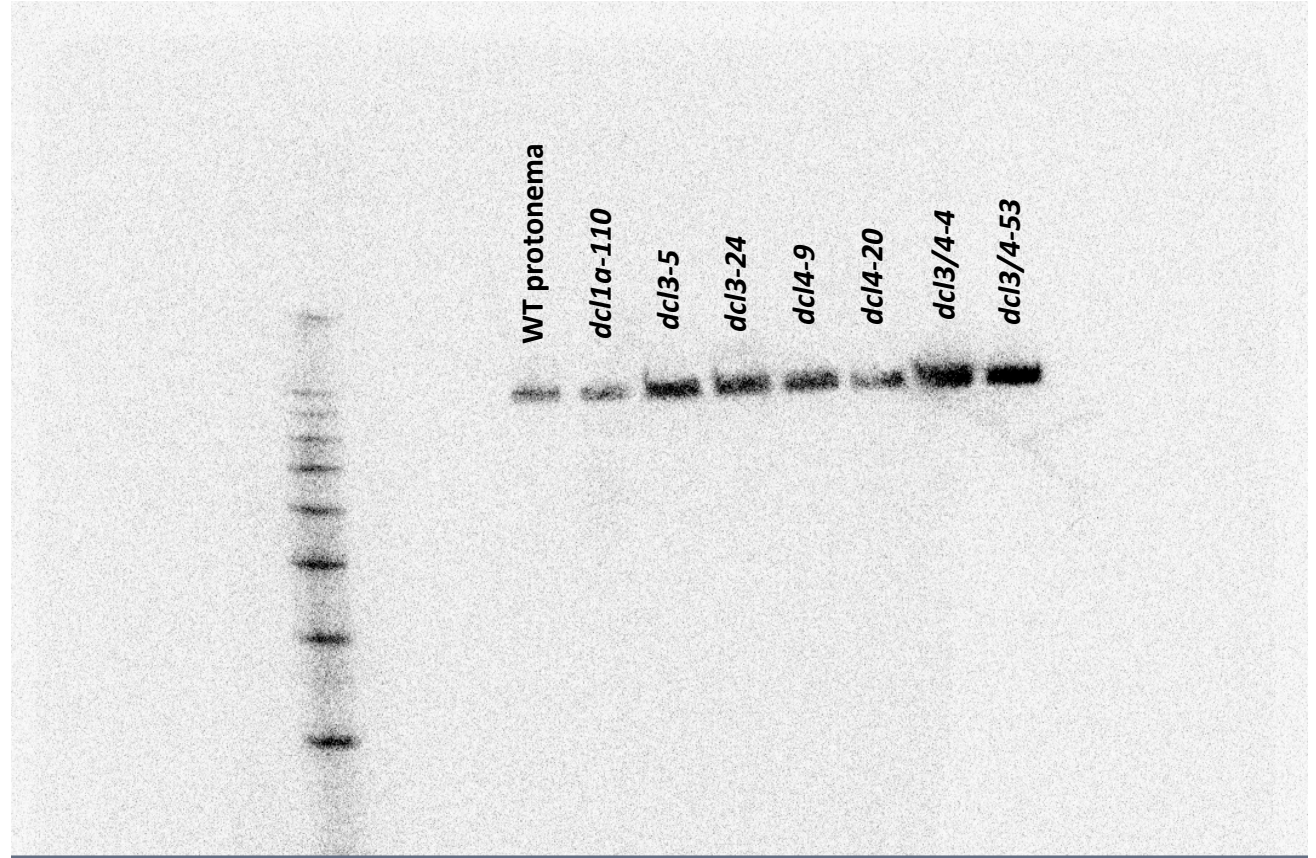
dcl3/4-53



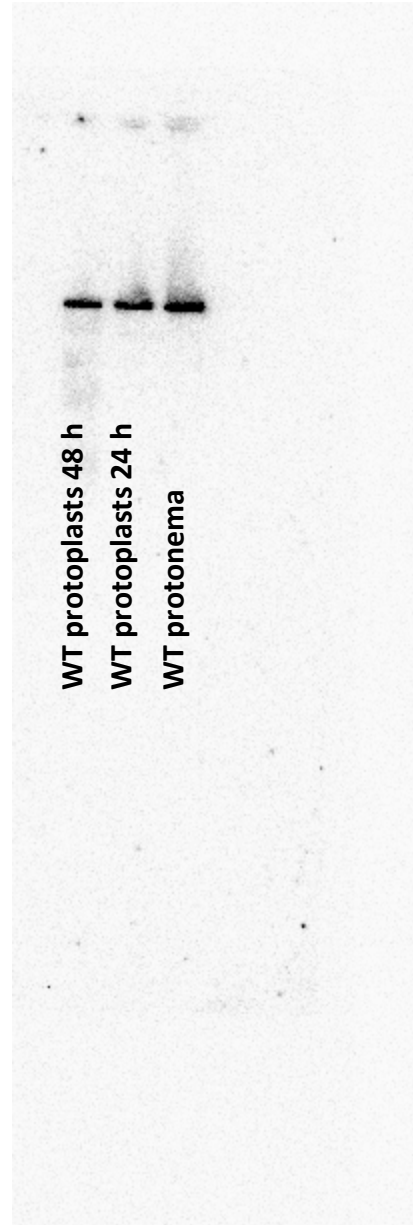
3.4.2014
Probe 2
24h exp.



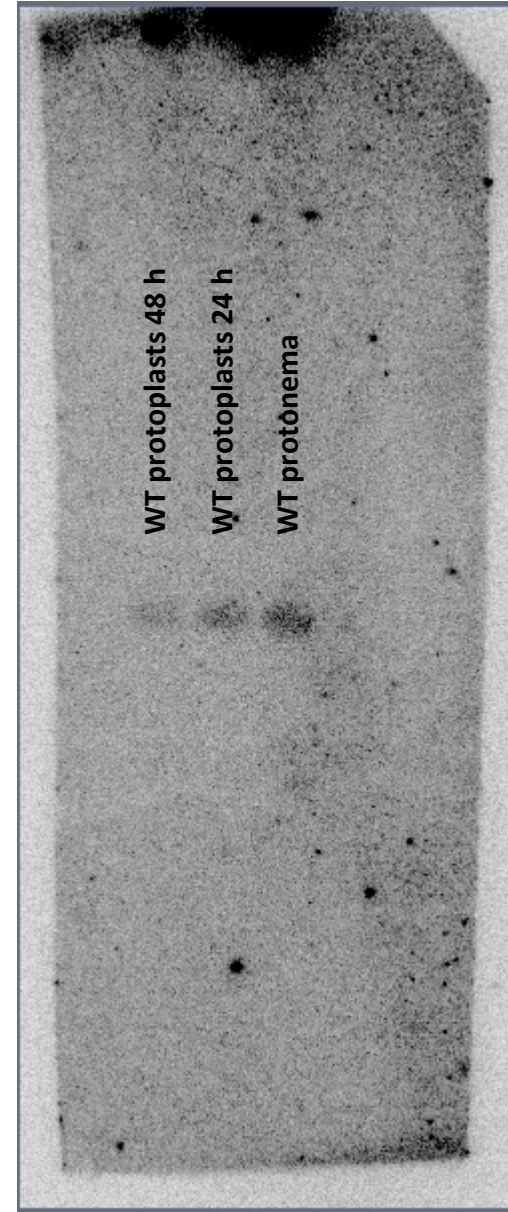
10.4.2014
U6
5min exp.



19.4.2013
U6
Gel 1
(20 min
exposure)



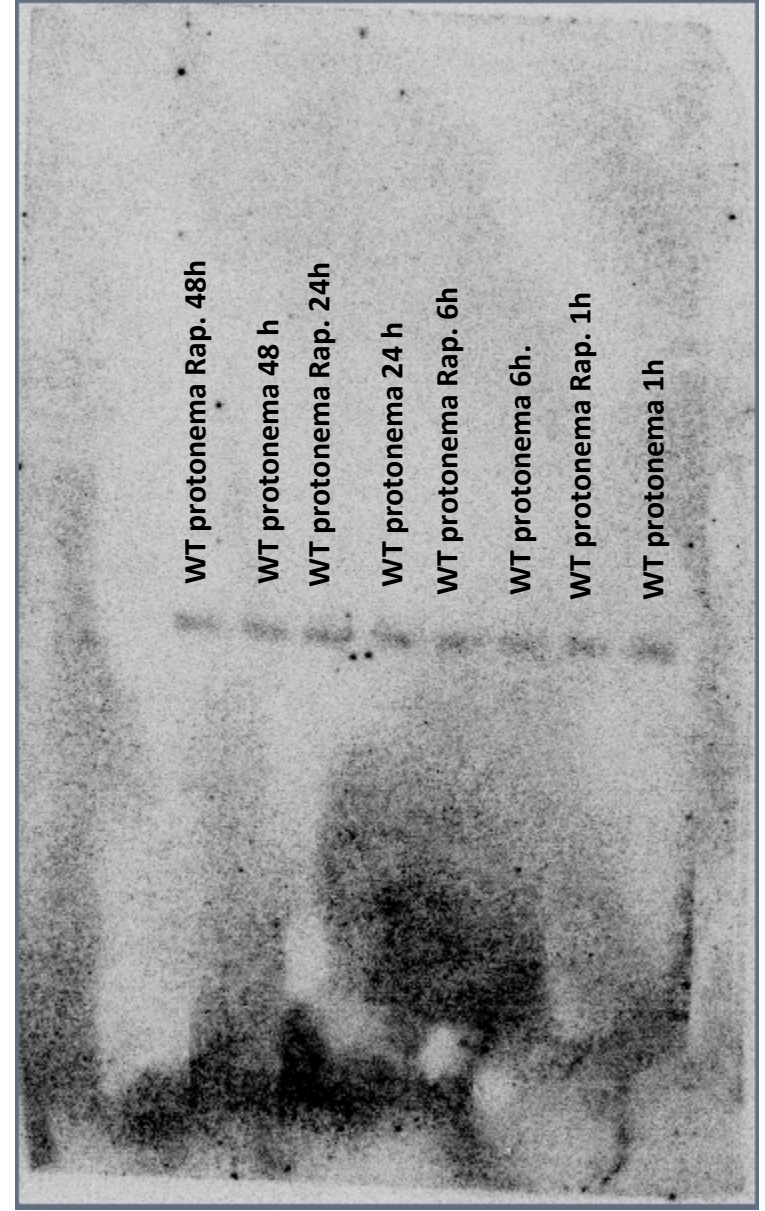
10.4.2013
Probe 2
Gel 1
(overnight
exposure)



17.4.2013
U6
Gel 1 Rap.
(20 min.
exposure)



10.4.2013
Probe 1
Gel 1 Rap.
(20 h.
exposure)



17.4.2013
U6
Gel 1 Rap.
(20 min.
exposure)



17.4.2013
Probe 2
Gel 1 Rap.
(24 h.
exposure)

