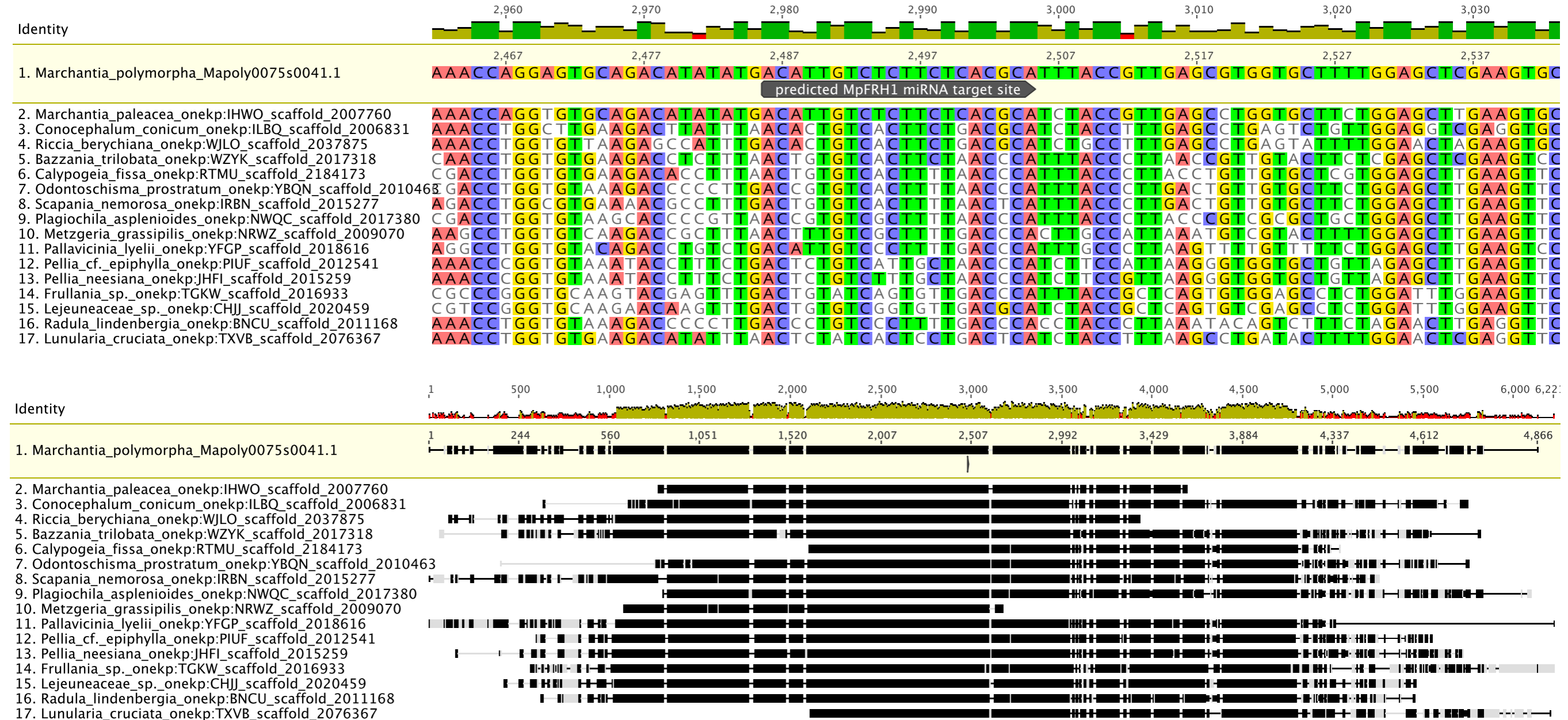
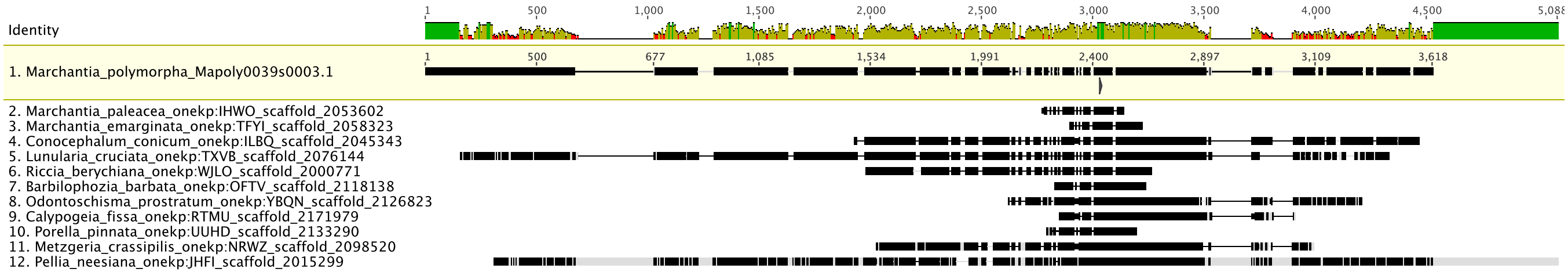
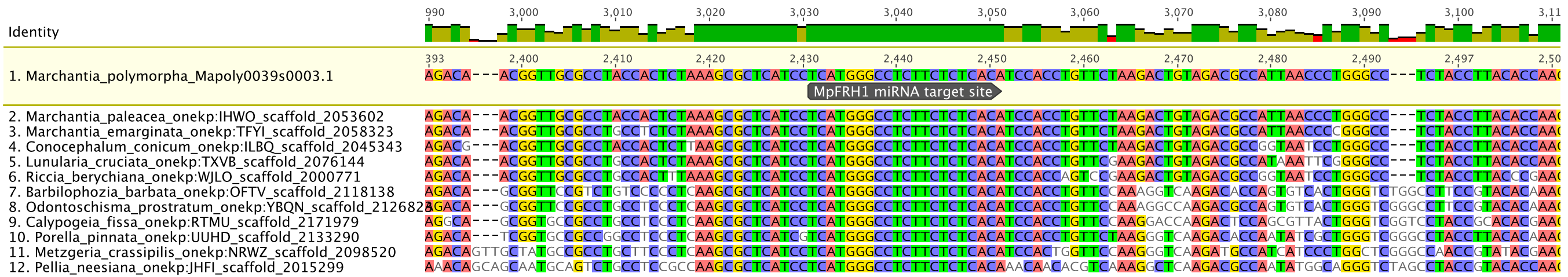


Supplemental file 4. Multiple sequence alignments of the predicted MpFRH1 miRNA target mRNAs in *M. polymorpha* and their orthologs from other liverworts. The predicted MpFRH1 target site is indicated with a grey arrow. Region around the predicted miRNA target site (top) and overview of the alignment (bottom). A) Foie gras domain containing protein Mapoly0075s0041.1. B) Basic helix-loop-helix transcription factor MpRSL1 Mapoly0039s003 C) Basic helix-loop-helix transcription factor transcript 27676 D) Nucleotide-rhamnose synthase/epimerase-reductase Mapoly0005s0120.

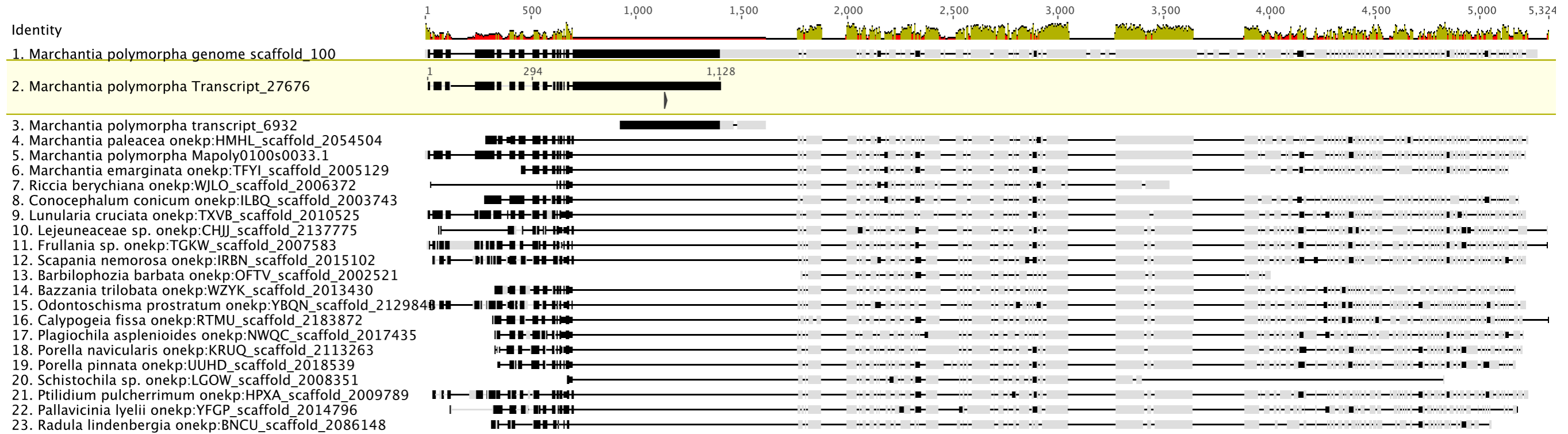
A



B



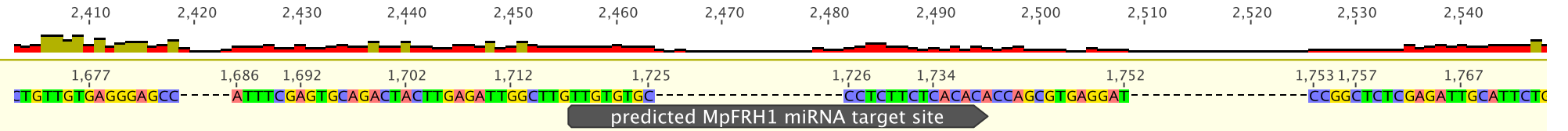
C



D

Identity

1. *Marchantia polymorpha*\_Mapoly0005s0120.1



2. *Marchantia emarginata*\_onekp:TFYI\_scaffold\_2073264

3. *Marchantia paleacea*onekp:HMHL\_scaffold\_2054285

4. *Lunularia cruciata*\_onekp:TXVB\_scaffold\_2013161

5. *Conocephalum conicum*\_ILBQ\_scaffold\_2045221

6. *Riccia berychiana*\_onekp:WJLO\_scaffold\_2006085

7. *Bazzania trilobata*\_onekp:WZYK\_scaffold\_2014405

8. *Calypogeia fissa*\_onekp:RTMU\_scaffold\_2018583

9. *Lejeuneaceae*\_sp.\_onekp:CHJJ\_scaffold\_2135142

10. *Ptilidium pulcherrimum*\_onekp:HPXA\_scaffold\_2135495

11. *Pellia cf. epiphylla*\_onekp:PIUF\_scaffold\_2089543

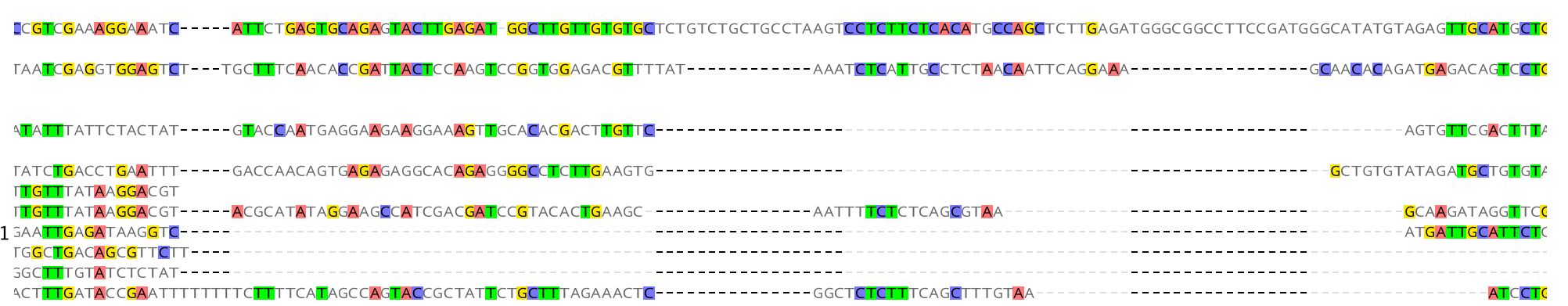
12. *Pellia neesiana*\_onekp:JHFI\_scaffold\_2112200

13. *Plagiochila asplenioides*\_onekp:NWQC\_scaffold\_2158771

14. *Schistochila*\_sp.\_onekp:LGOW\_scaffold\_2002383

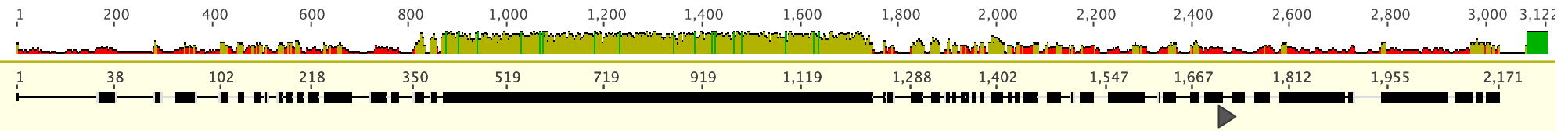
15. *Pallavicinia lyelii*\_onekp:YFGP\_scaffold\_2015480

16. *Radula lindenbergia*\_onekp:BNCU\_scaffold\_2086093



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4. *Lunularia cruciata*\_onekp:TXVB\_scaffold\_2013161

5. *Conocephalum conicum*\_ILBQ\_scaffold\_2045221

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14. *Schistochila*\_sp.\_onekp:LGOW\_scaffold\_2002383

15. *Pallavicinia lyelii*\_onekp:YFGP\_scaffold\_2015480

16. *Radula lindenbergia*\_onekp:BNCU\_scaffold\_2086093

