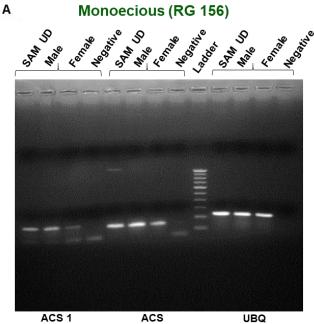
## Probing the Floral Developmental Stages, Bisexuality and Sex Reversions in Castor (*Ricinus communis* L.)

### **Scientific Reports**

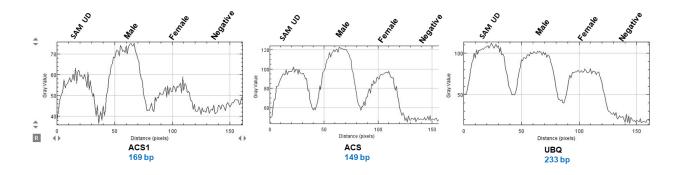
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ICAR-Indian Institute of Oilseeds research, Rajendranagar, Hyderabad, Telangana, 500 030 India.

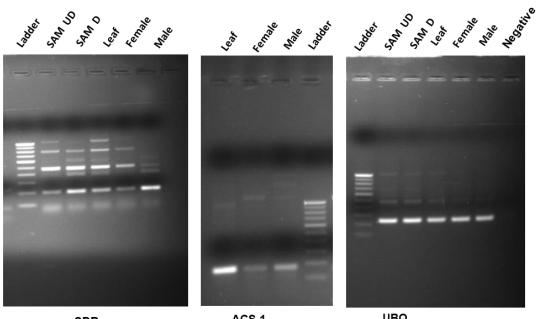
\*E-mail: sujatha.parvathy@icar.gov.in, hiisuj1@gmail.com





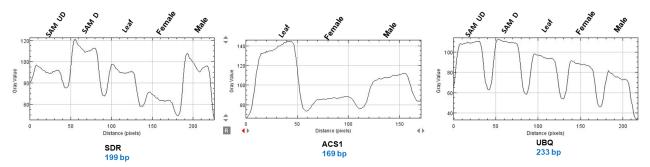


# Monoecious (DCS 107)

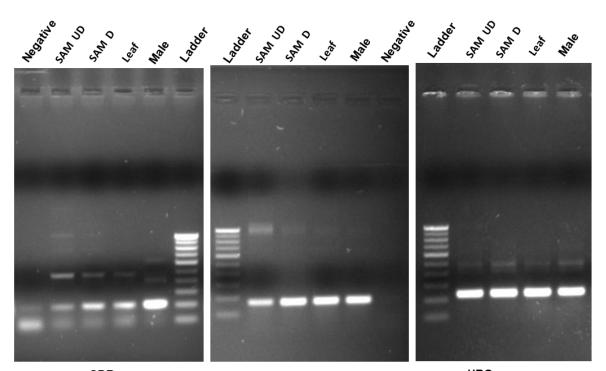


SDR 199 bp ACS 1 169 bp UBQ 233 bp

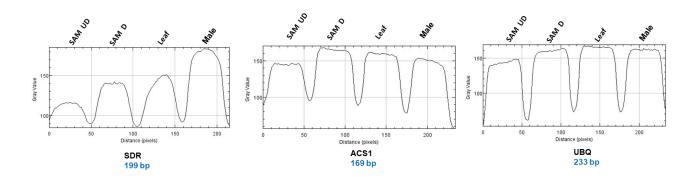




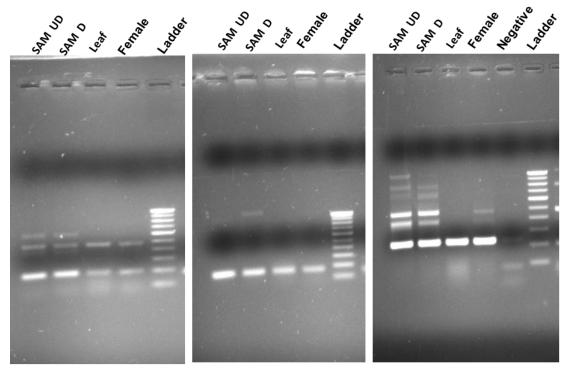
# Staminate (M 574-OS1)



SDR 199 bp ACS 1 169 bp UBQ 233 bp



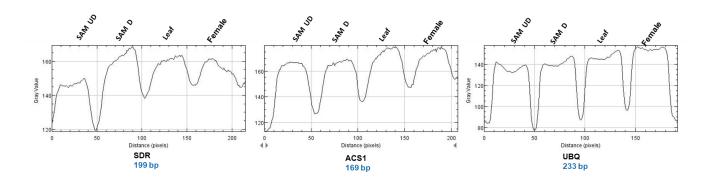
# Pistillate (DPC 9)

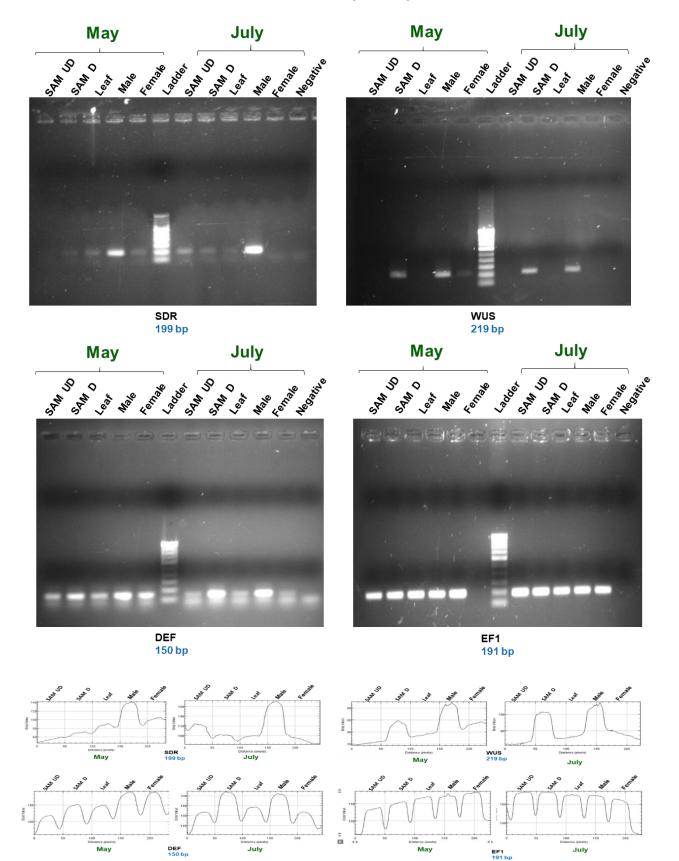


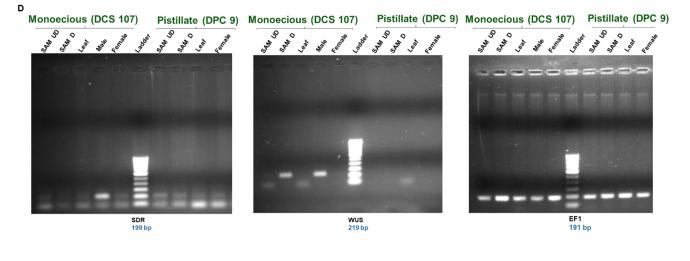
SDR 199 bp

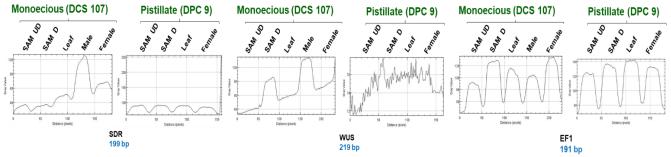


UBQ 233 bp



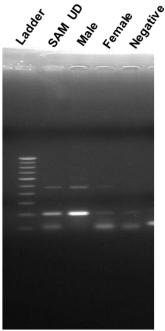




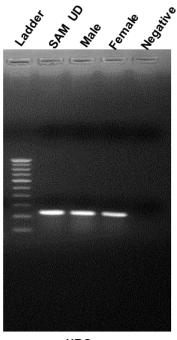


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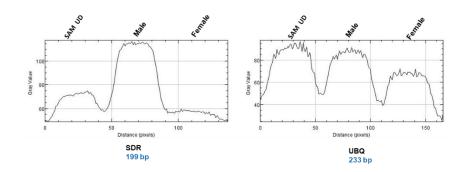
Monoecious (RG 156)





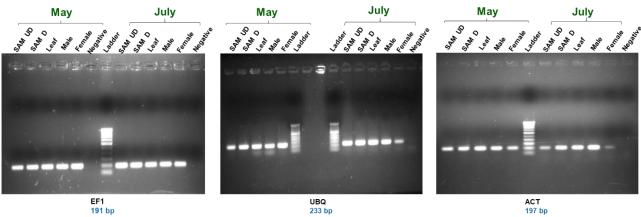


UBQ 233 bp





Monoecious (RG 156)

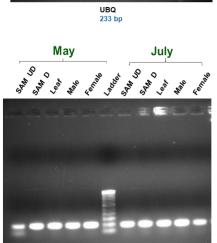


EF1 191 bp

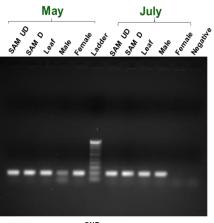
PGK 153 bp

July

Мау

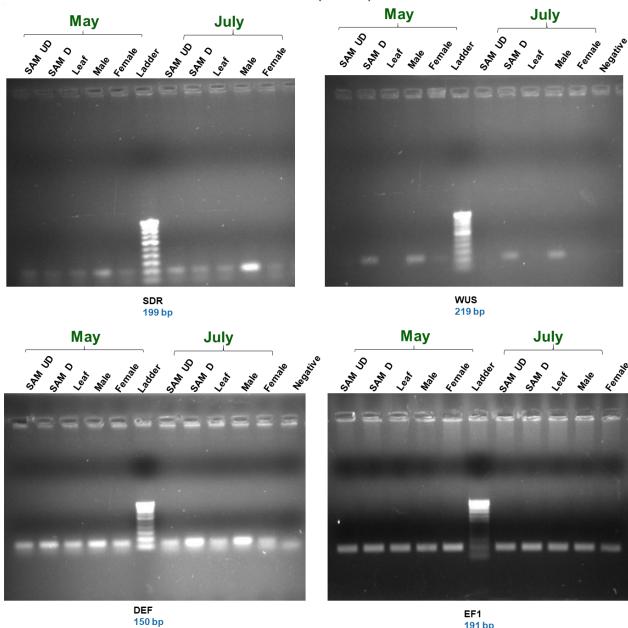


GADPH 193 bp



SND 190 bp

#### Monoecious (RG 156)



# Supplementary Figure S8: Complete or whole gels showing gene expression profiling in castor genotypes by semi-quantitative RT-PCR

(A) Expression of 1-amino cyclopropane carboxylate synthase (*ACS* and *ACS 1*) I monoecious RG 156 (**B**) Expression of *SDR* and *ACS1* in monoecious DCS 107, staminate M 574-OS1 and Pistillate DPC 9 genotypes. (**C**) Expression of *SDR*, *DEF* and *WUS* in monoecious RG156 under two temperature conditions of May (high) and July (low). (**D**) Expression of *SDR* and *WUS* in monoecious DCS 107 and pistillate DPC 9. (**E**) Expression of *SDR* in monoecious RG 156.*UBQ* is same as that in (A). (**F**) Expression of 6 control genes in monoecious RG 156 under two temperature conditions in May and July. (**G**) Reverification of expression of *SDR*, *DEF* and *WUS* in monoecious RG 156 under different temperature conditions of May and July. *UBQ* and *EF-1* are used as internal control genes. L is 100 bp ladder, Negative is water control. Shoot apical meristem (SAM UD), differentiated SAM or inflorescence bud at stage II (SAM D), young growing leaf from inflorescence bud (leaf), young male and female buds are indicated.

The plot profiles for band intensity comparison generated using Image J is given for gels (A-E). \*Non- specific amplification in one-step RT-PCR using random hexamers in (A), (B) and (E) were absent in (C), (D), (F) and (G) in two-step RT-PCR when oligo dT was used for cDNA synthesis. Experiments (A), (B) and (E) were carried out during 2015-17 and (C), (D), (F) and (G) during 2018. Samples for (A) were and (E) were collected during May 2015 and (B) collected during mid-February to 1<sup>st</sup> week of March 2017.