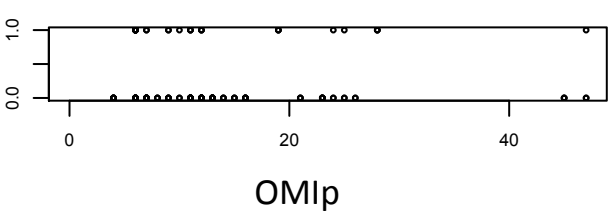
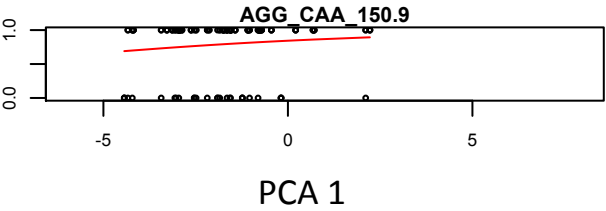
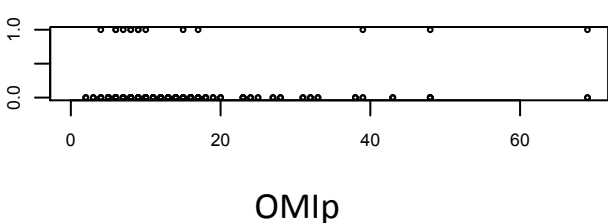
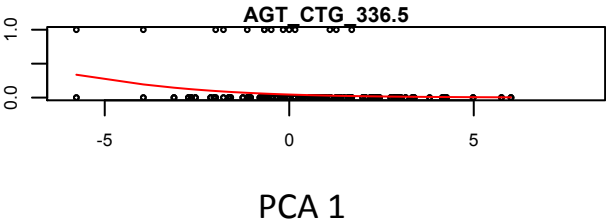


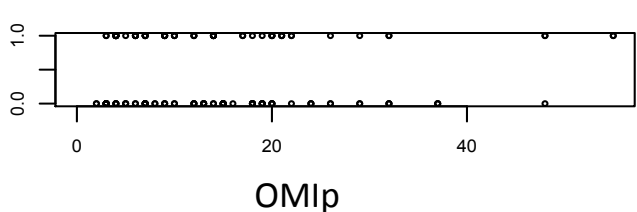
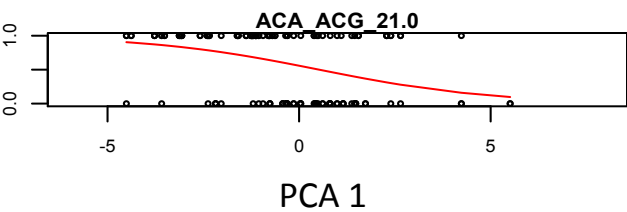
*Androsace obtusifolia*



*Campanula barbata*

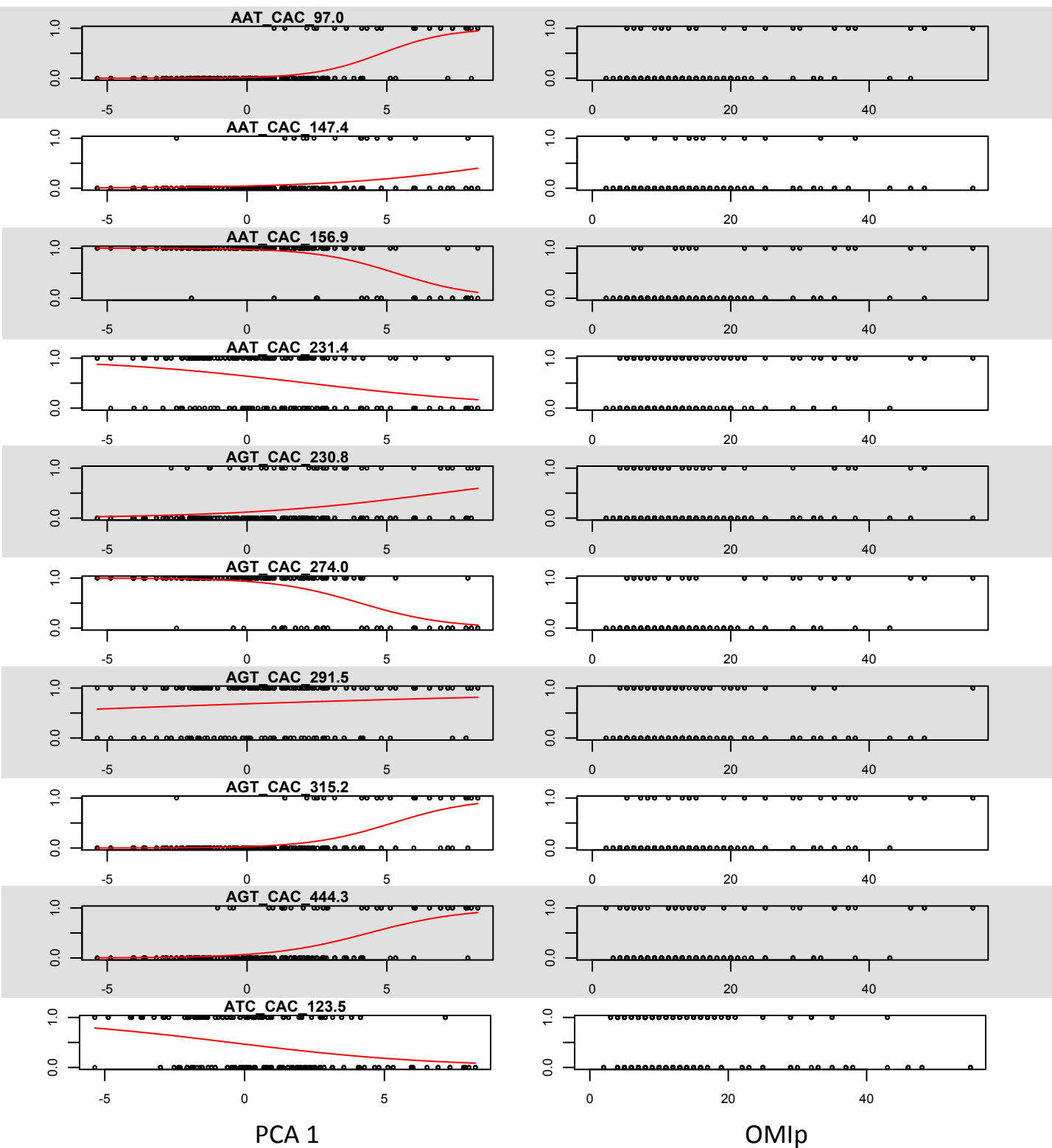


*Carex firma*



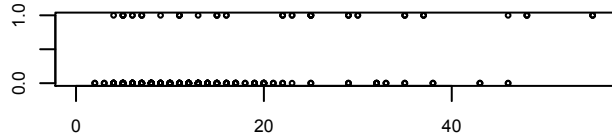
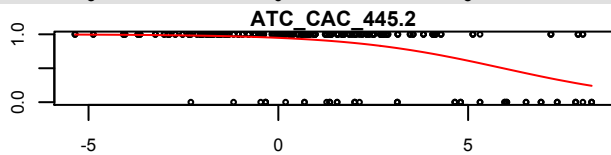
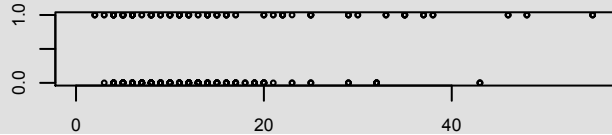
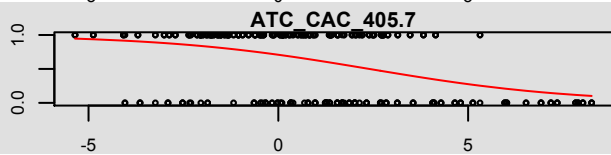
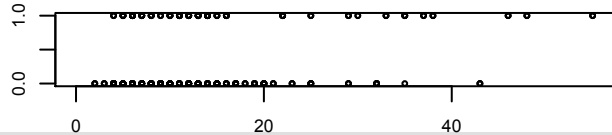
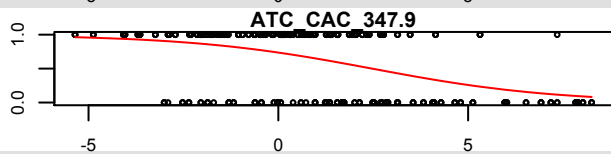
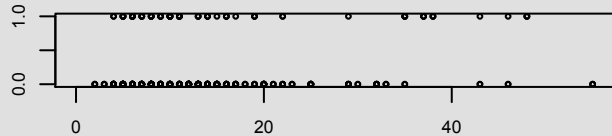
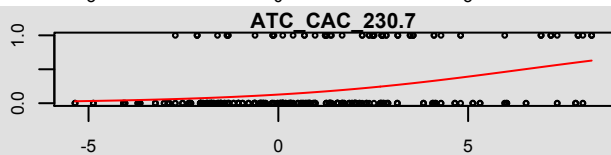
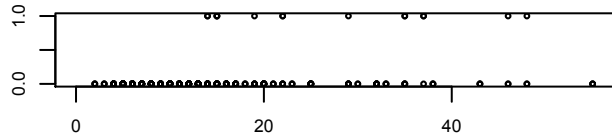
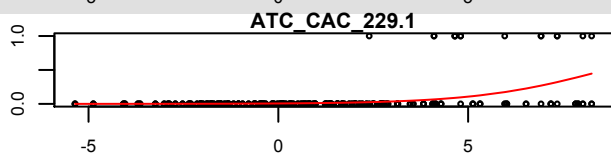
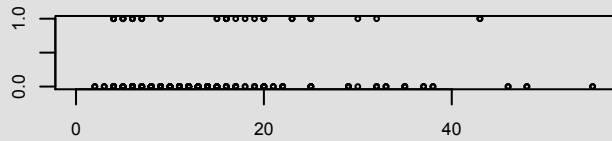
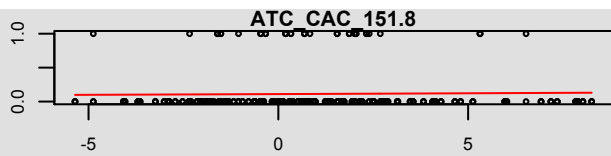
# *Arabis alpina* (part 1)

Loci associated with one environmental variable



# *Arabis alpina* (part 2)

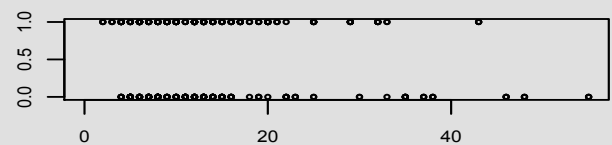
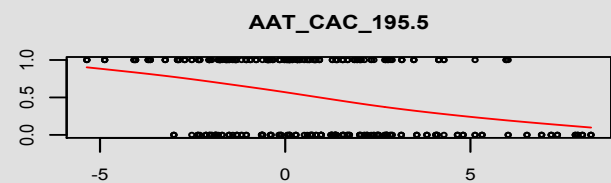
## Loci associated with one environmental variable



PCA 1

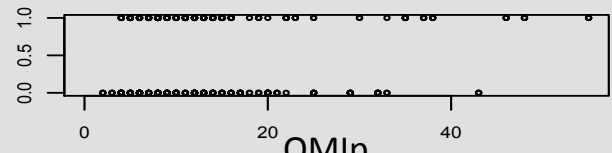
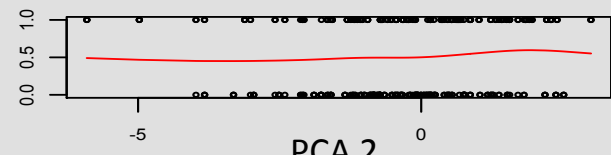
OMlp

## Loci associated with two environmental variables



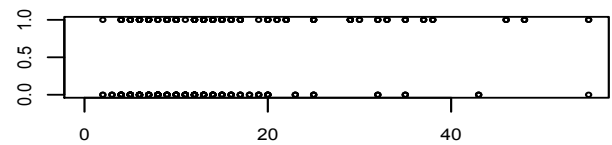
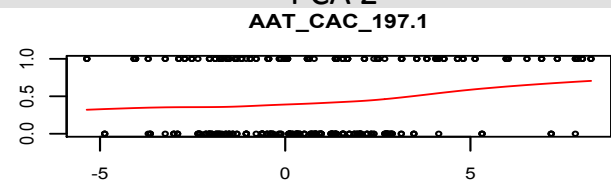
PCA 1

OMlp



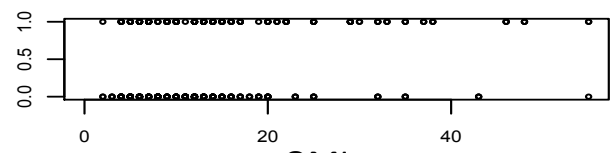
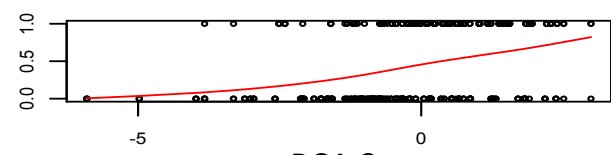
PCA 2

OMlp



PCA 1

OMlp

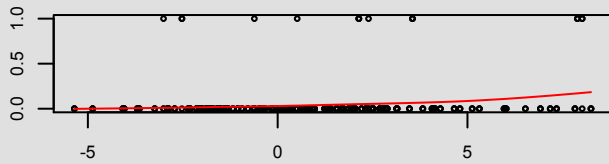


PCA 2

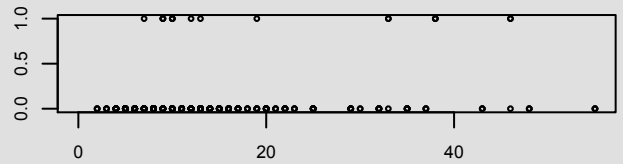
OMlp

## *Arabis alpina* (part 3)

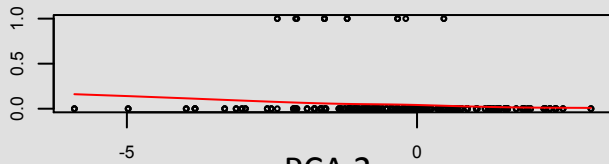
AGT\_CAC\_158.1



PCA 1



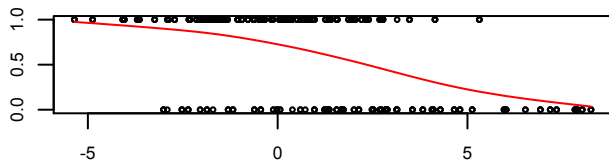
OMIp



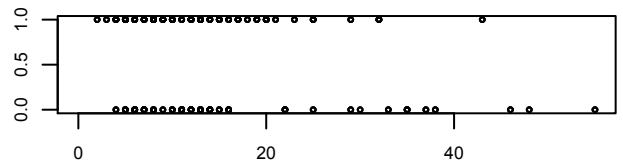
## PCA 2

 $^0 \text{OMIp}$ 

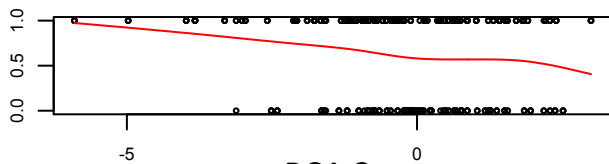
AGT\_CAC\_347.8



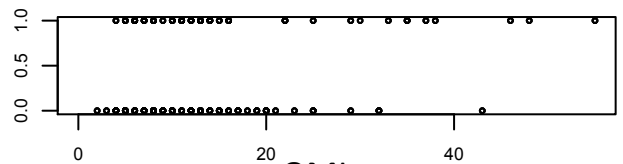
PCA 1



OMIp

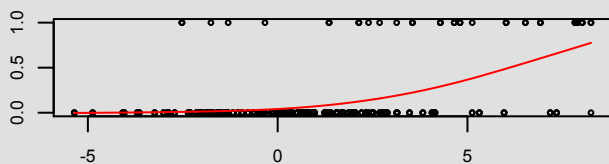


## PCA 2

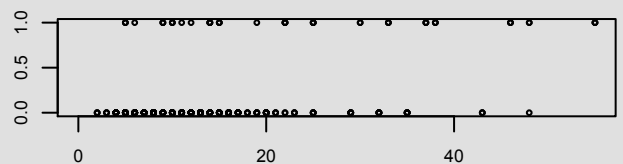


OMIp

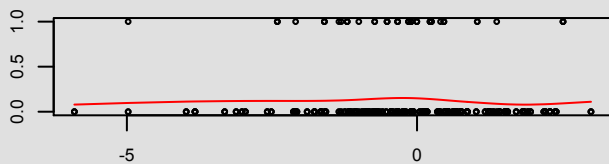
ATC\_CAC\_99.5



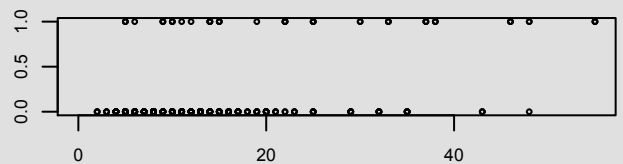
## PCA 1



OMIp

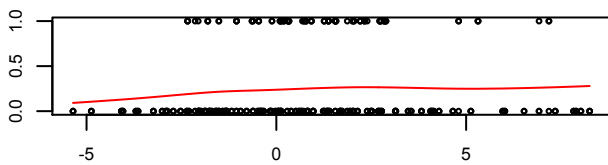


## PCA 2

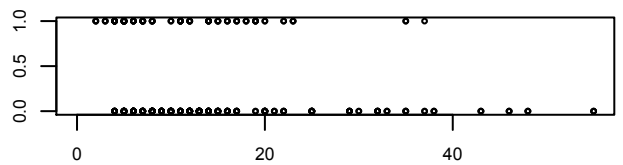


OMIp

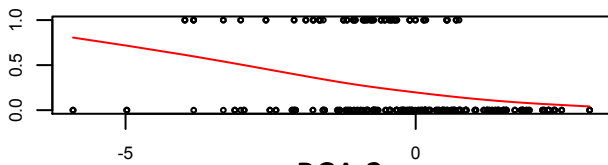
ATC\_CAC\_266.2



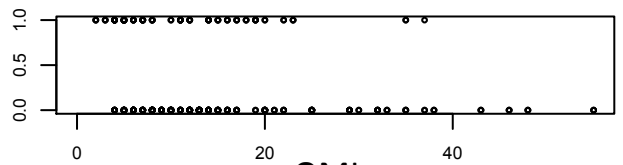
## PCA 1



OMIp



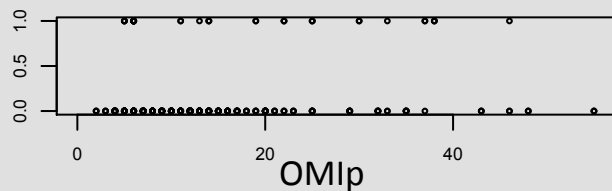
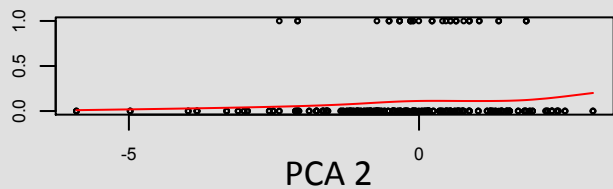
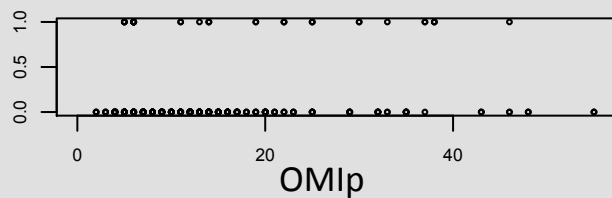
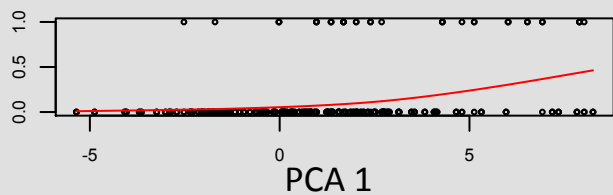
## PCA 2



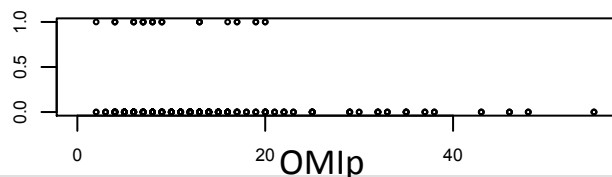
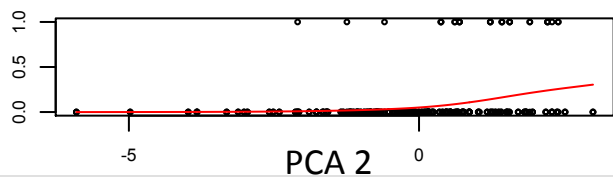
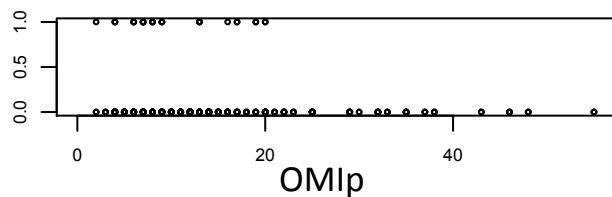
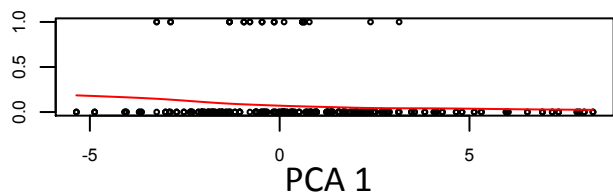
OMIp

# *Arabis alpina* (part 4)

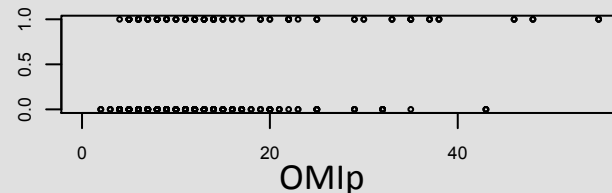
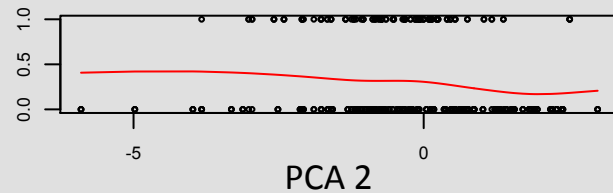
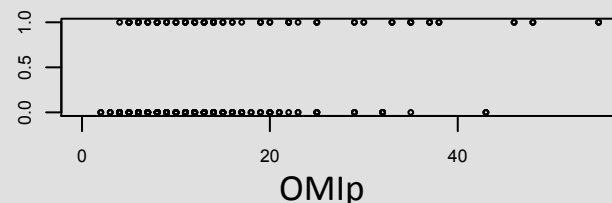
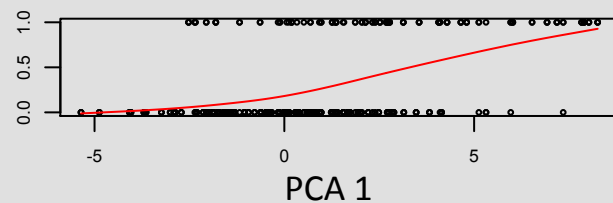
ATC\_CAC\_276.4



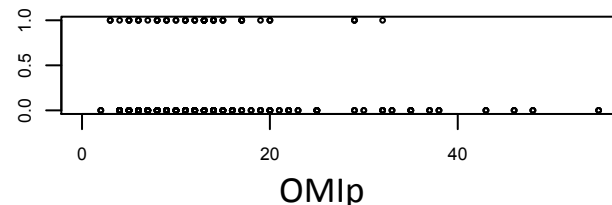
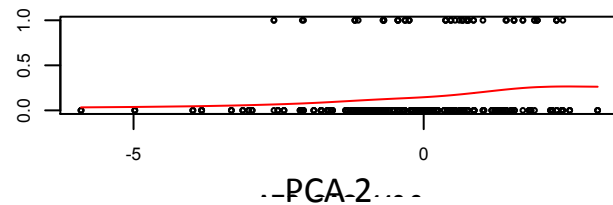
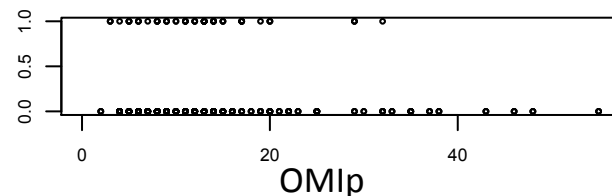
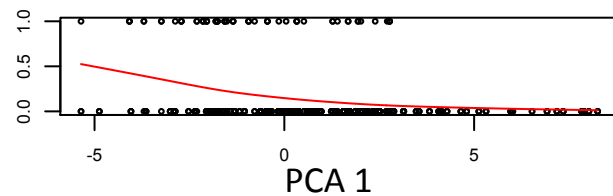
ATC\_CAC\_277.8



ATC\_CAC\_288.7

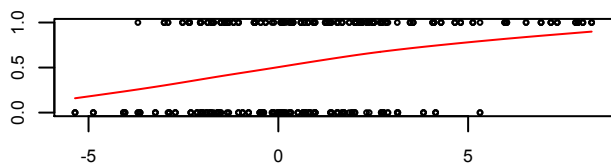


ATC\_CAC\_387.7

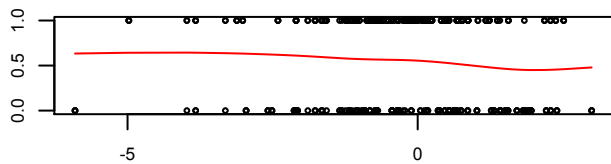


# *Arabis alpina* (part 5)

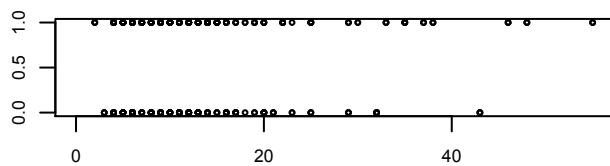
ATC\_CAC\_442.2



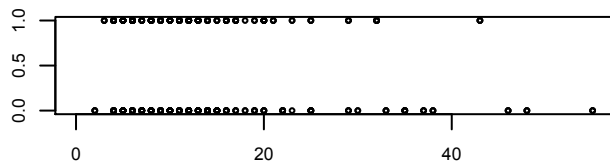
PCA 1



PCA 2



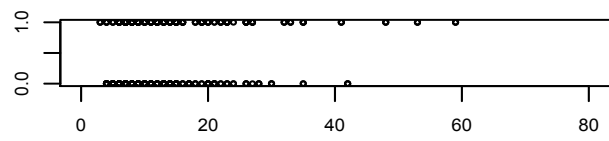
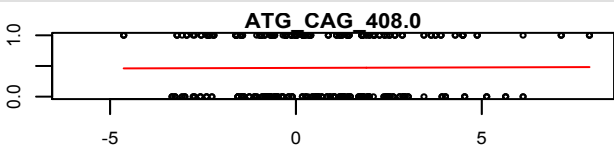
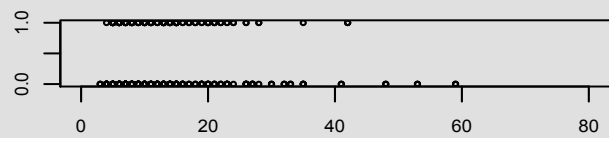
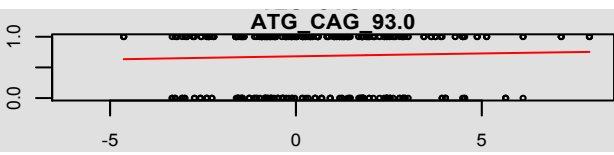
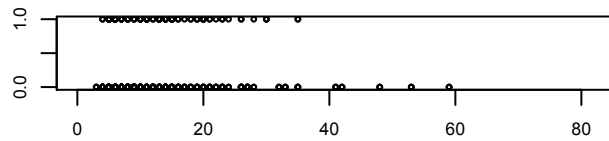
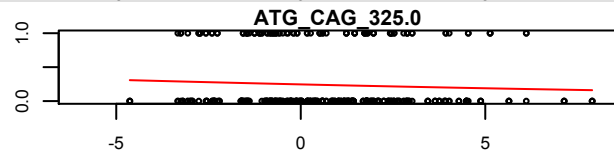
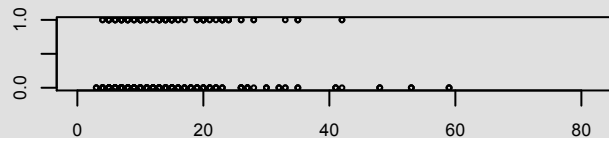
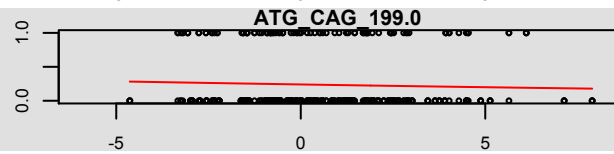
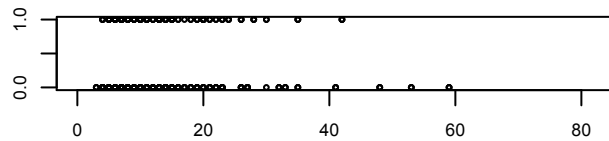
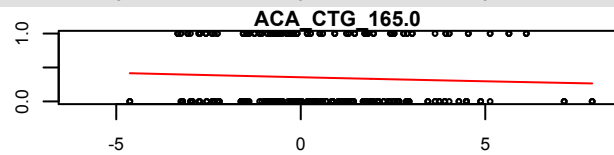
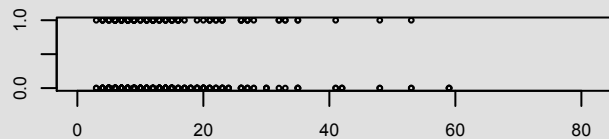
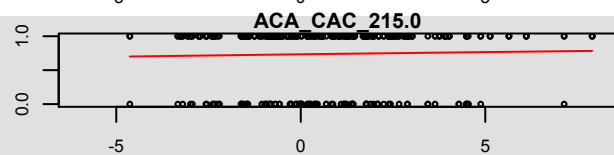
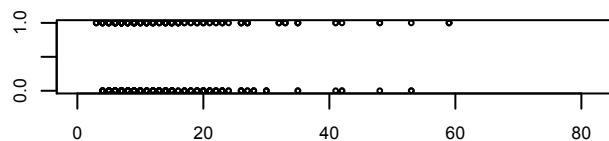
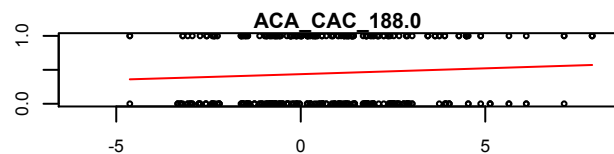
OMIp



OMIp

# *Carex sempervirens*

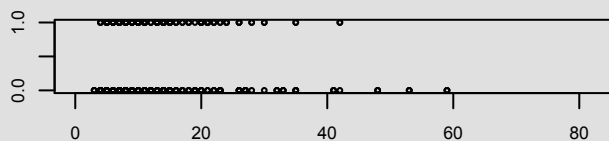
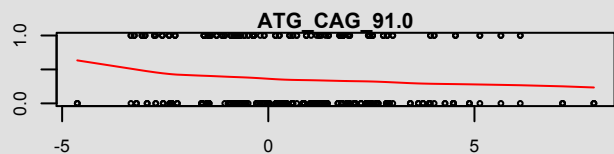
## Loci associated with one environmental variable



PCA 1

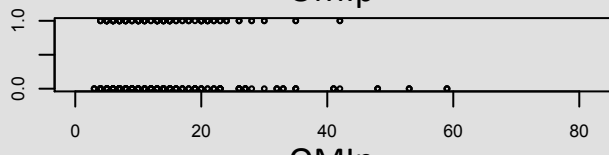
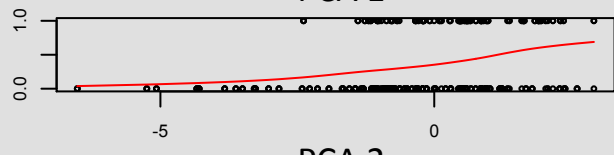
OMlp

## Loci associated with two environmental variables



PCA 1

OMlp

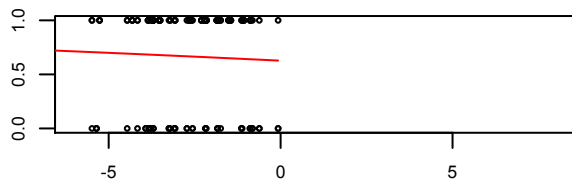


PCA 2

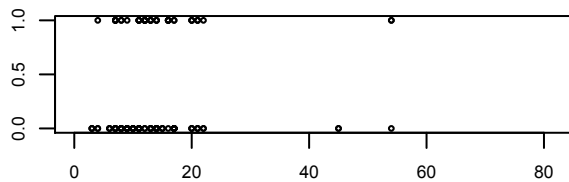
OMlp

# *Cerastium uniflorum*

AGA\_CTA\_196.0

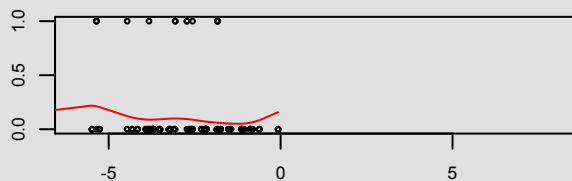


PCA 1

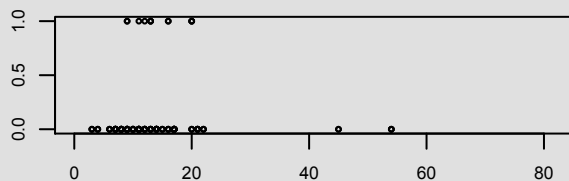


OMIp

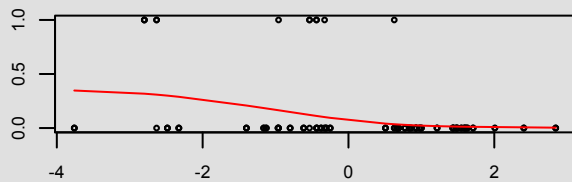
AGA\_CTA\_204.7



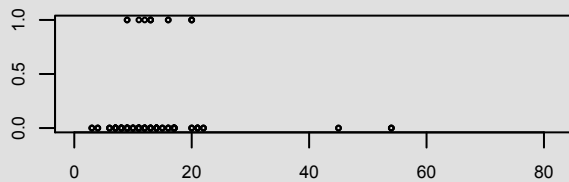
PCA 1



OMIp



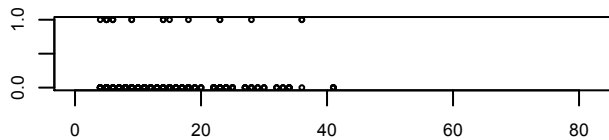
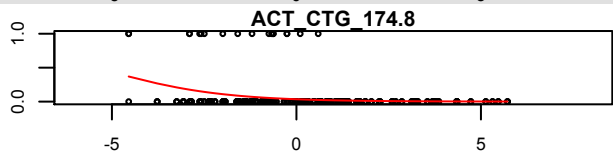
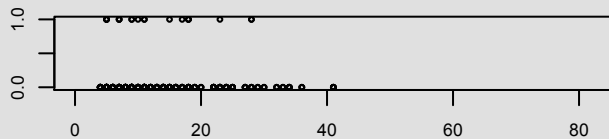
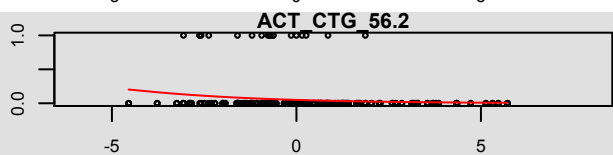
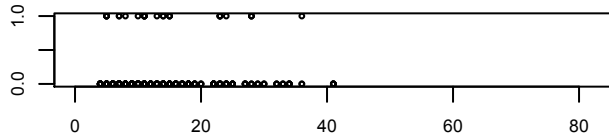
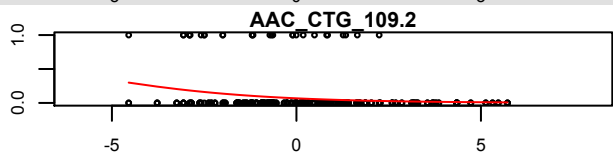
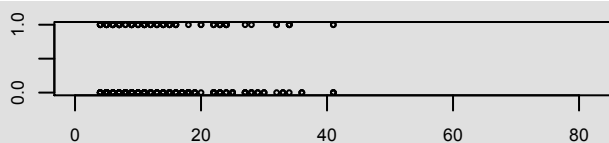
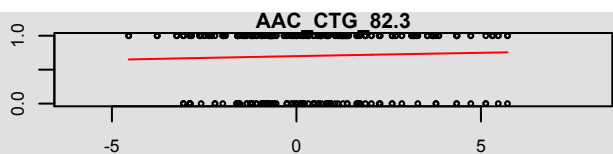
PCA 2



OMIp

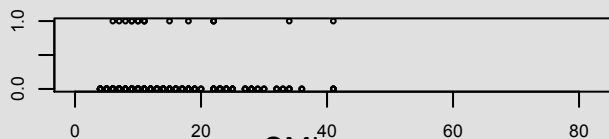
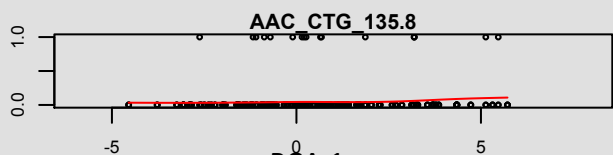


# *Dryas octopetala*



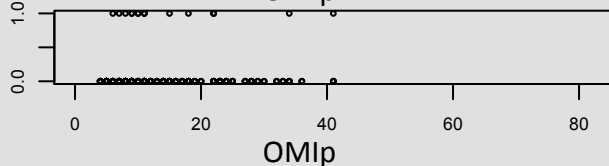
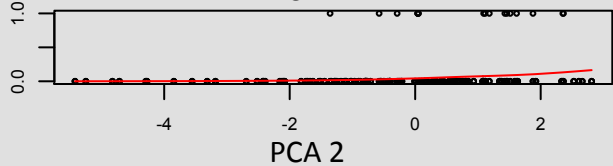
PCA 1

OMlp



PCA 1

OMlp

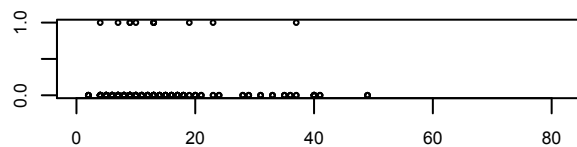
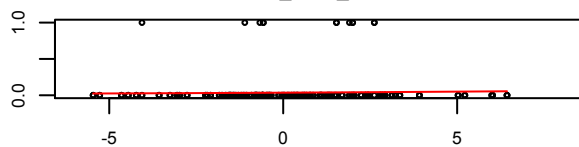


PCA 2

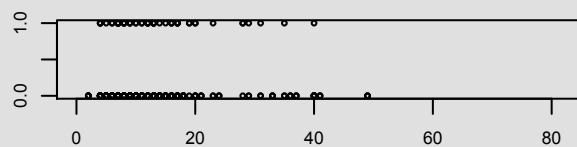
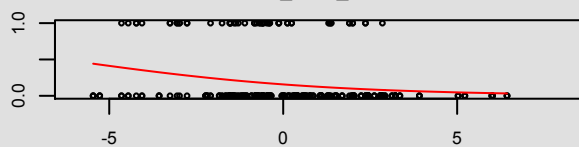
OMlp

# *Geum montanum*

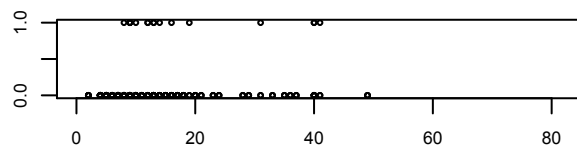
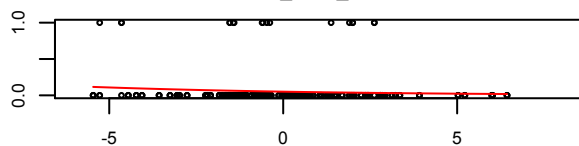
ACA\_CAC\_210.0



ACA\_CTG\_233.0



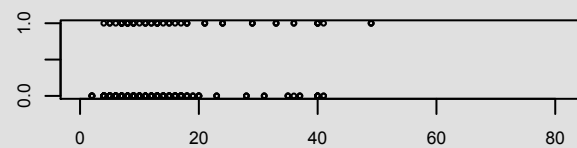
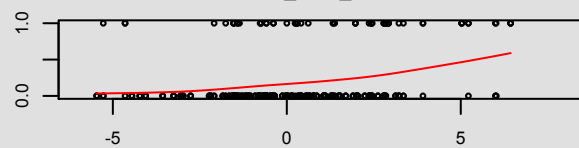
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PCA 1

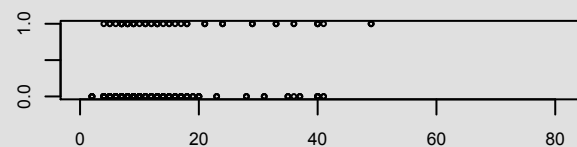
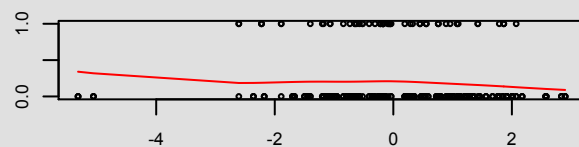
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ACC\_CAT\_252.0



PCA 1

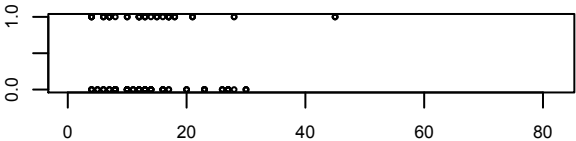
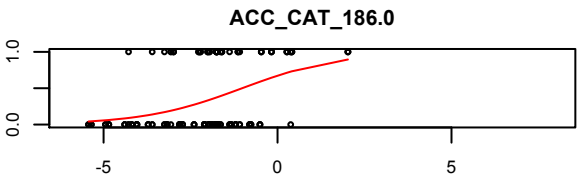
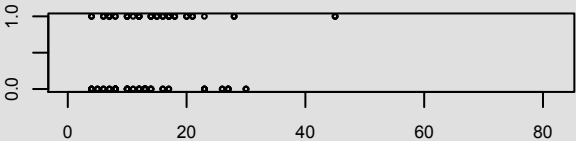
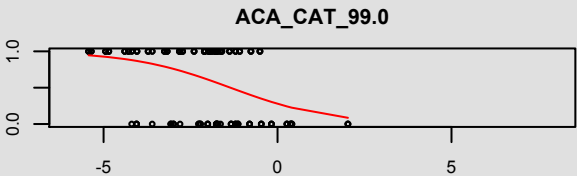
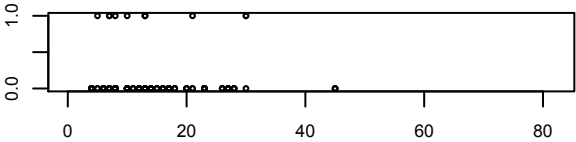
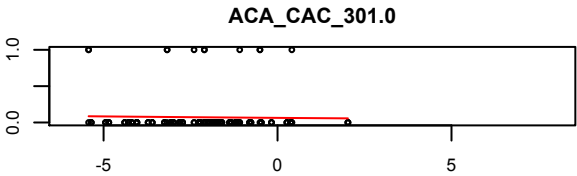
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PCA 2

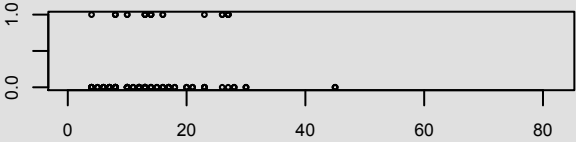
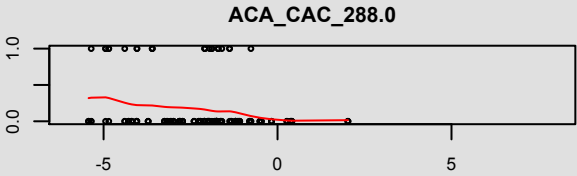
OMI<sub>p</sub>

*Geum reptans*



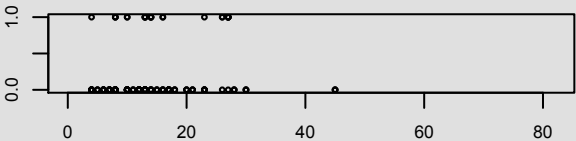
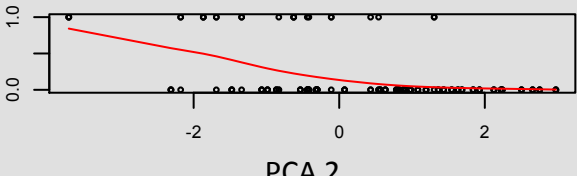
PCA 1

OMI<sub>p</sub>



PCA 1

OMI<sub>p</sub>

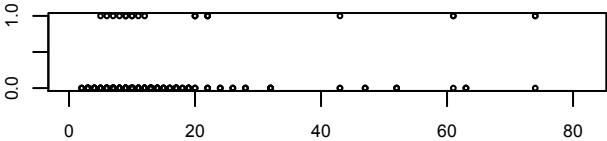
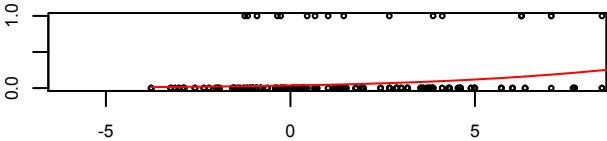


PCA 2

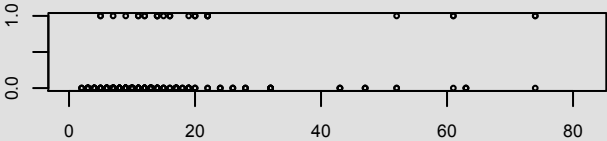
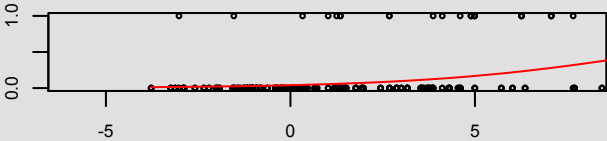
OMI<sub>p</sub>

*Gypsophila repens*

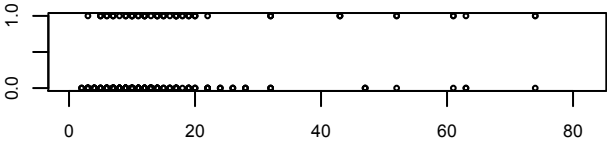
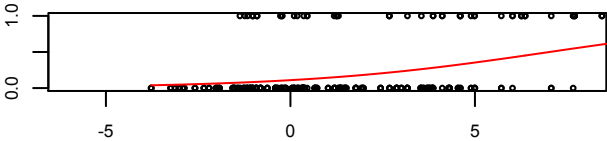
ACA\_CTN\_135.0



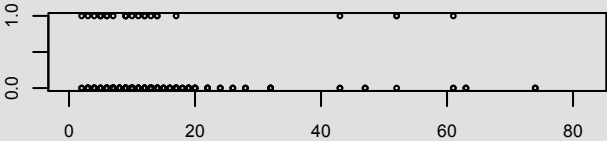
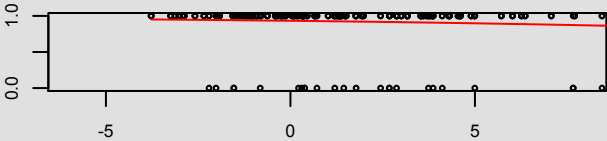
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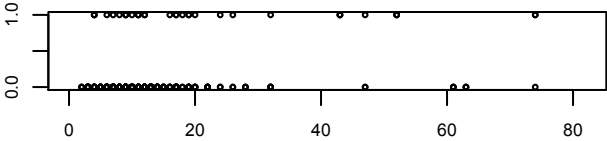
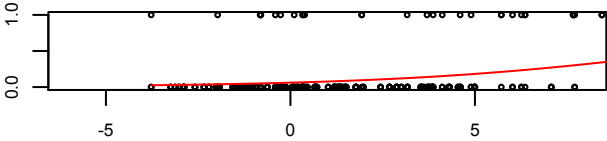
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ACT\_CAN\_134.0



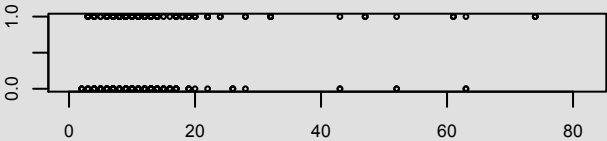
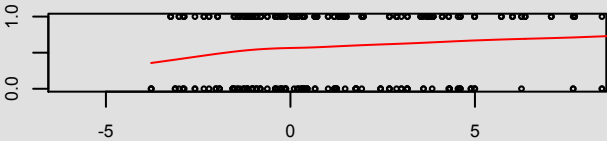
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PCA 1

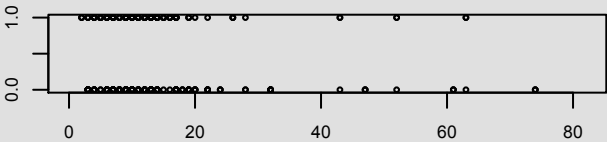
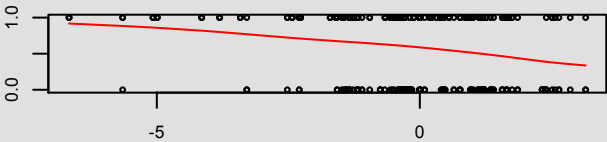
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ACA\_CTN\_98.0



PCA 1

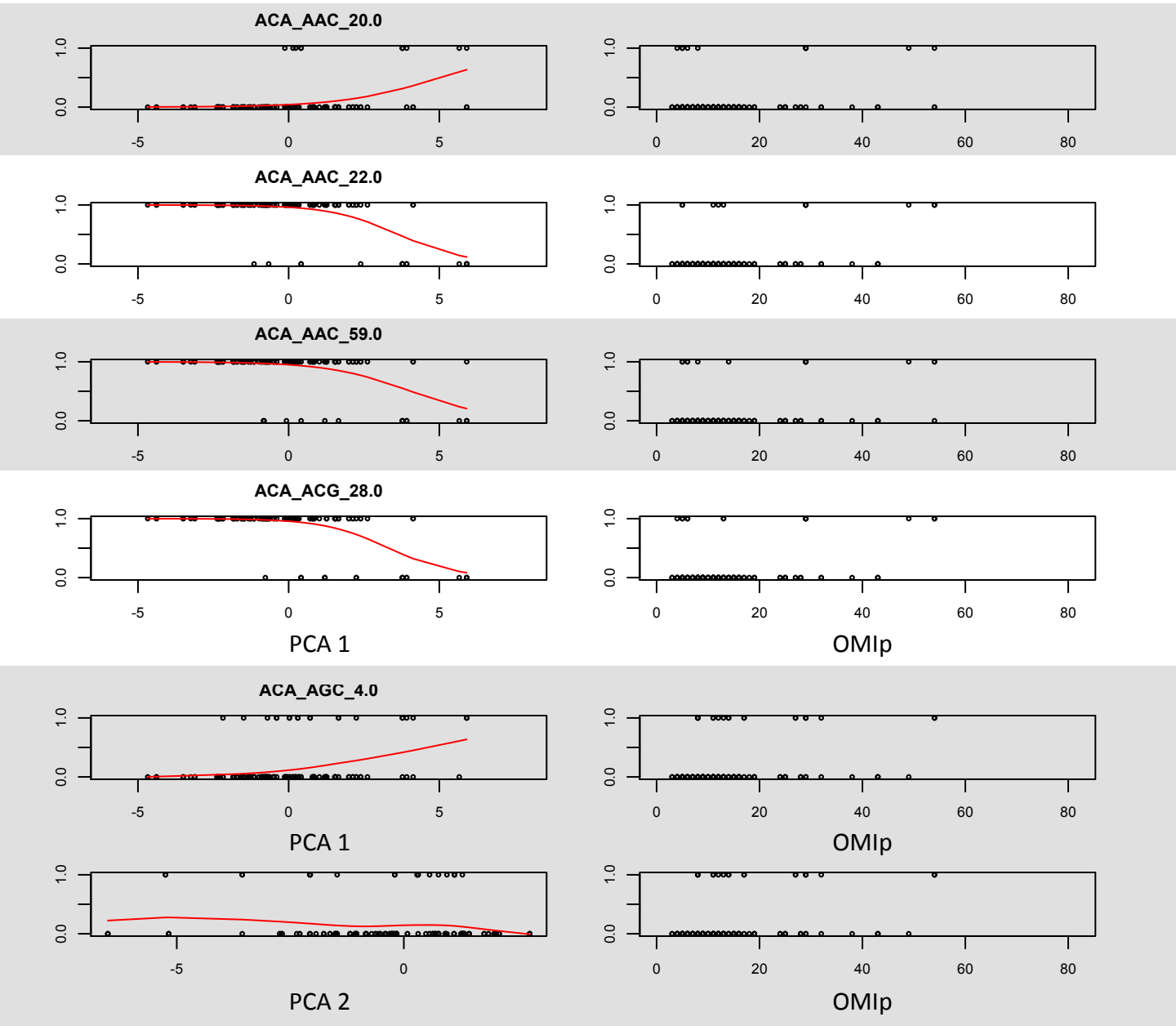
OMI<sub>p</sub>



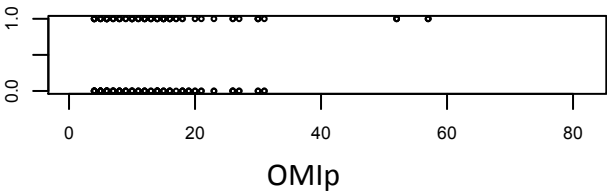
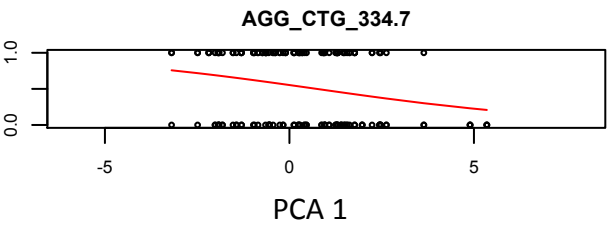
PCA 2

OMI<sub>p</sub>

*Hedysarum hedysaroides*

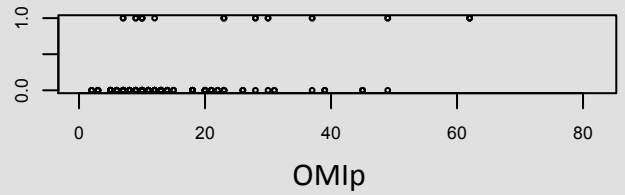
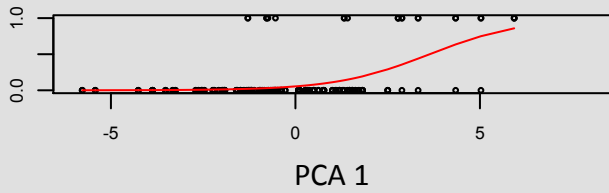


*Hypochaeris uniflora*

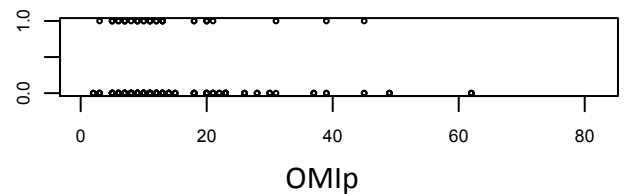
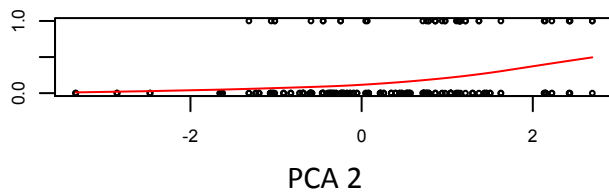
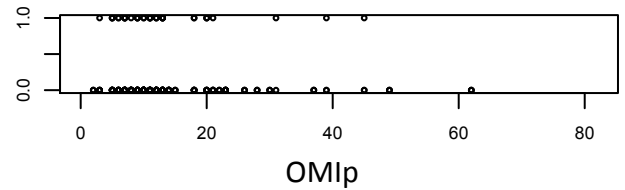
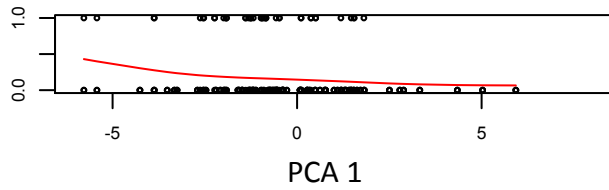


# *Juncus trifidus*

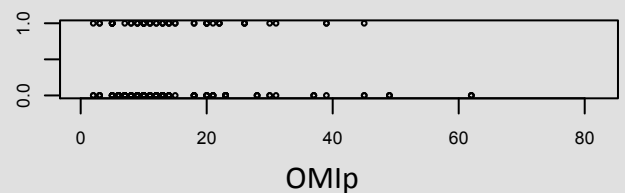
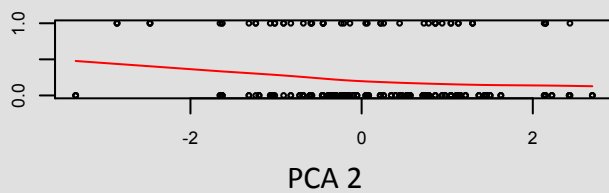
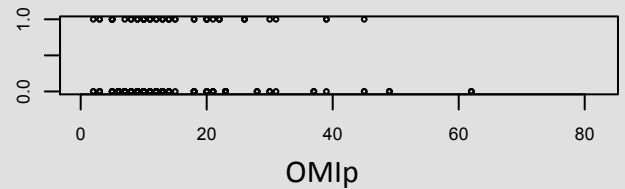
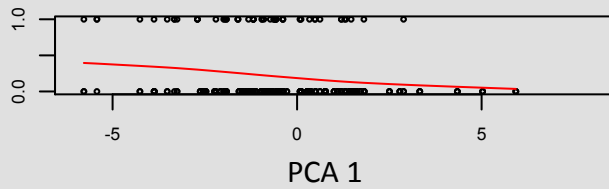
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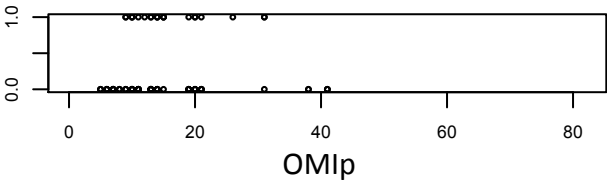
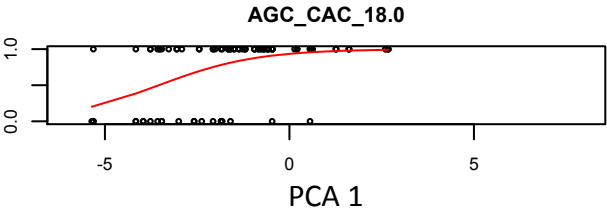
ACA\_CAN\_277.0



ACA\_CAN\_289.0

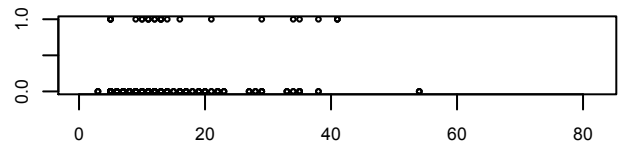
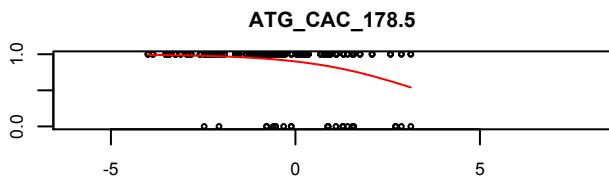
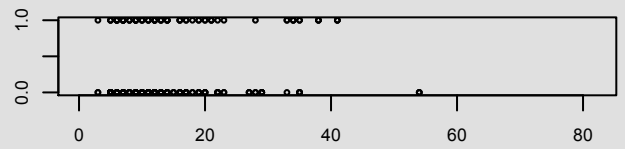
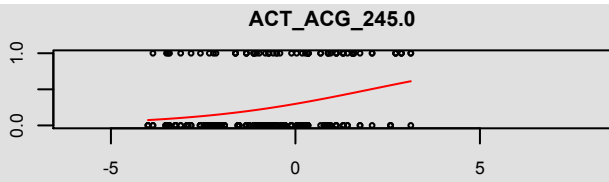
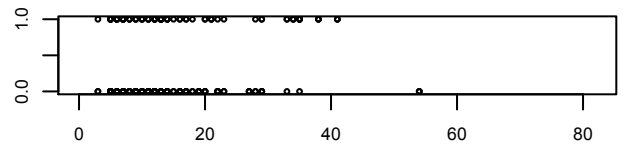
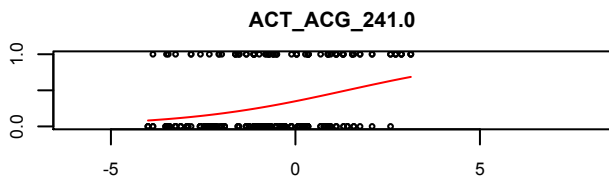
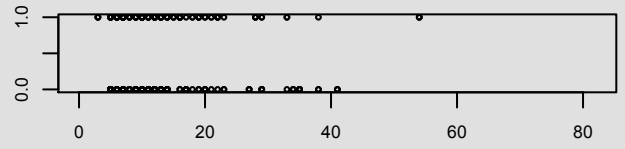
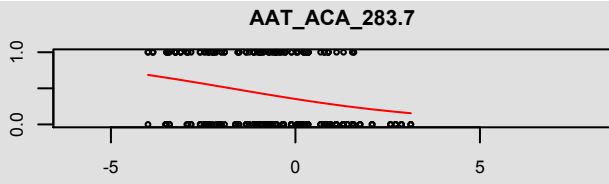
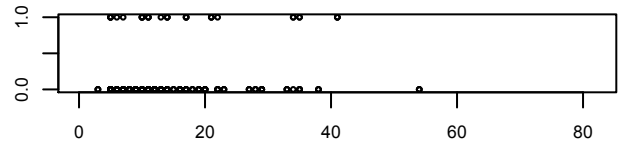
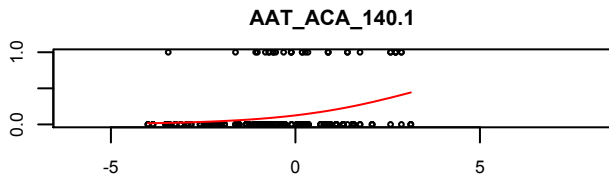


*Ligusticum mutellinoides*





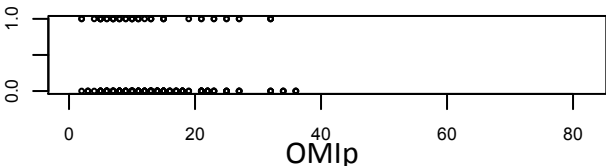
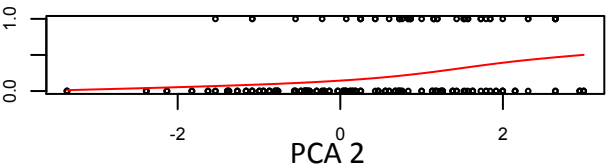
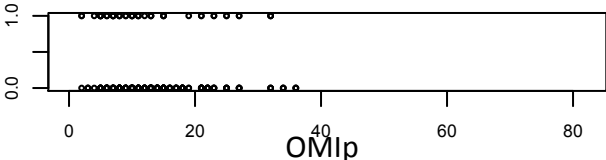
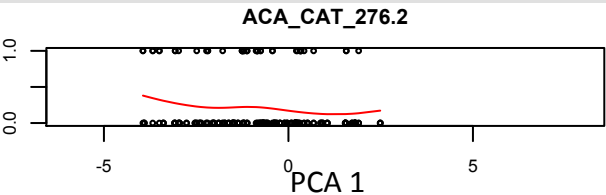
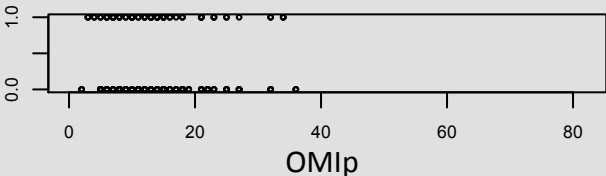
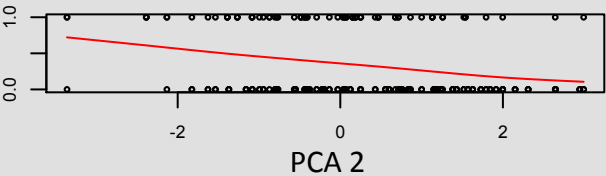
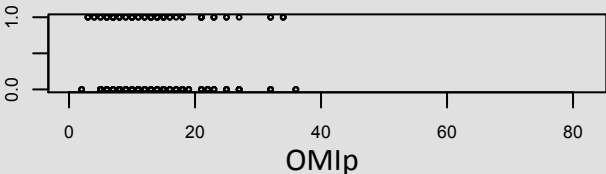
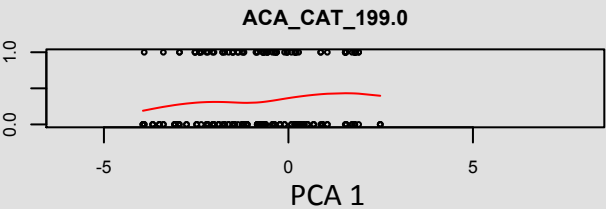
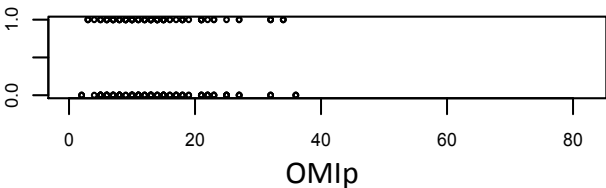
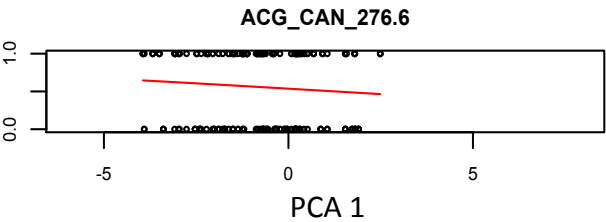
# *Loiseleuria procumbens*



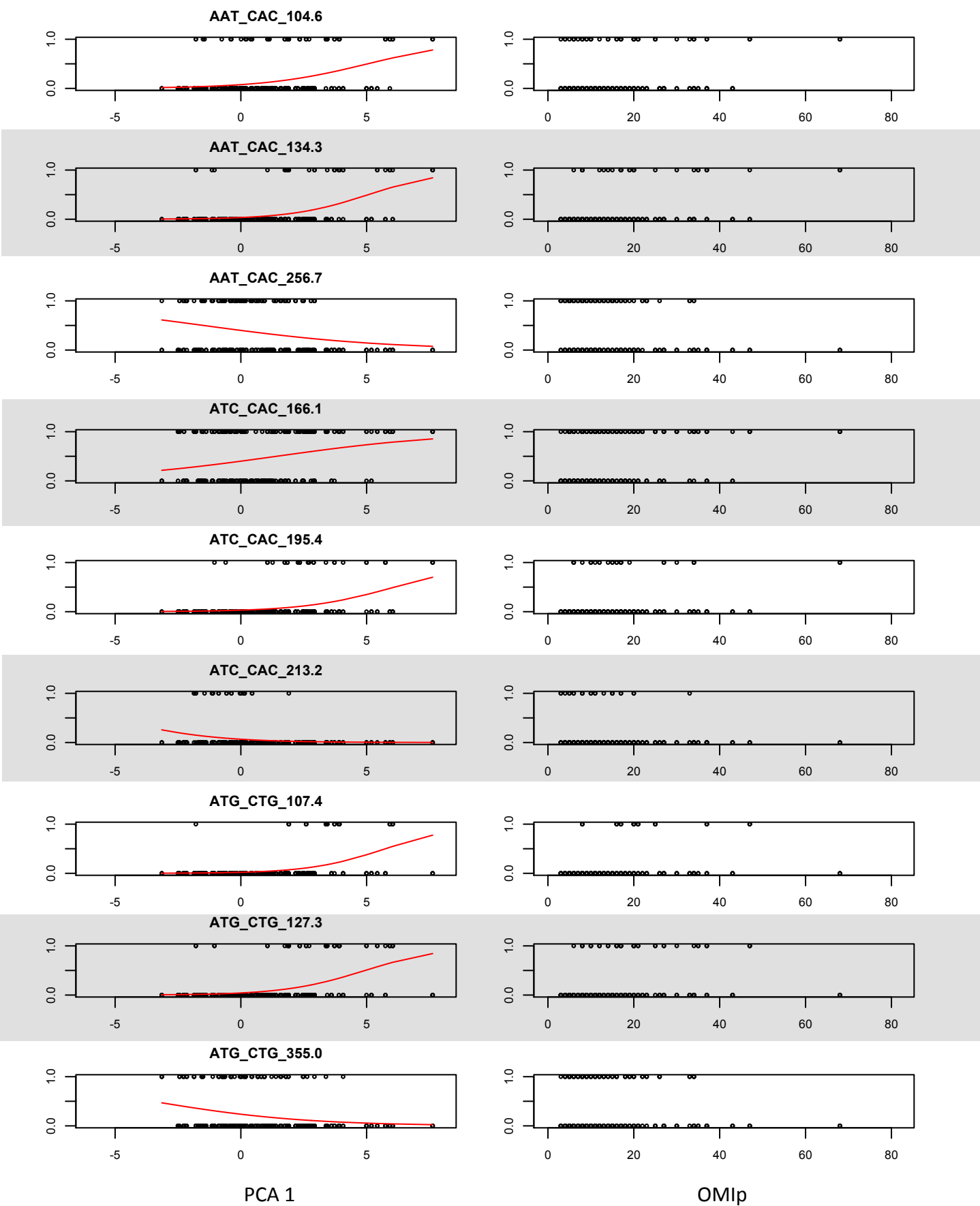
PCA 1

OMlp

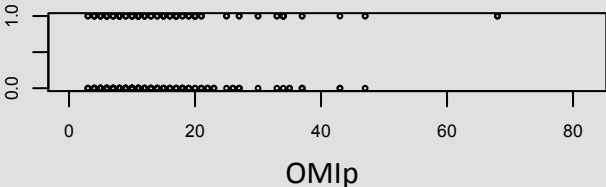
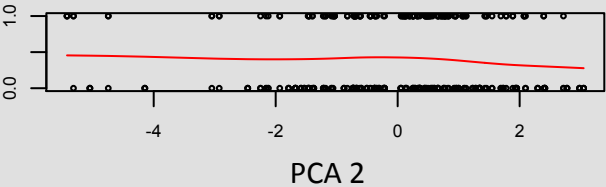
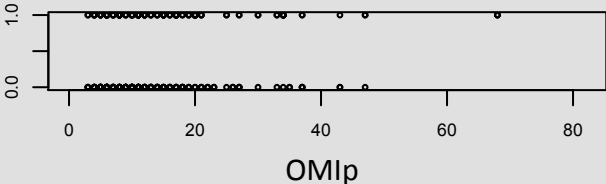
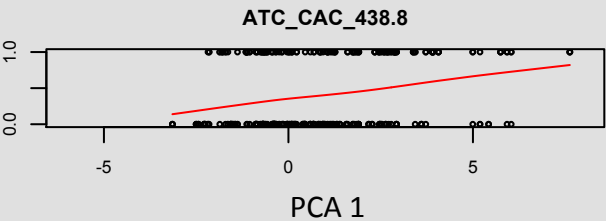
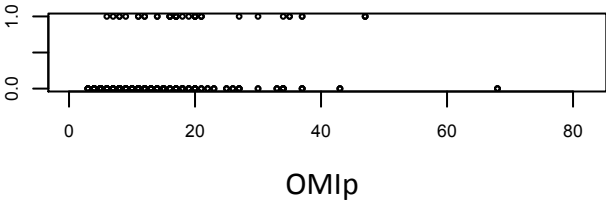
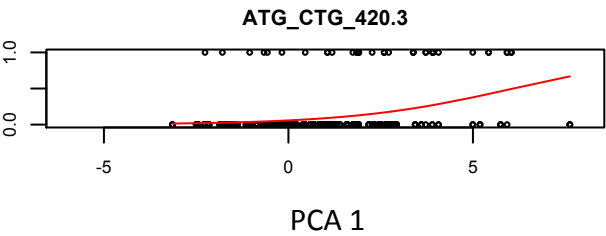
*Phyteuma hemisphaericum*



# *Rhododendron ferrugineum* (part 1)

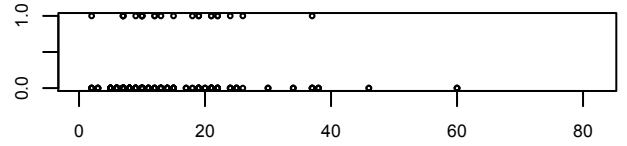
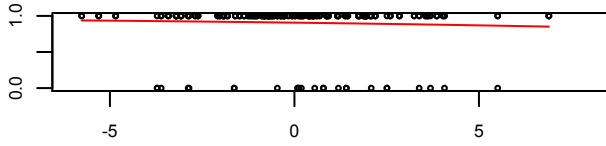


*Rhododendron ferrugineum* (part 2)

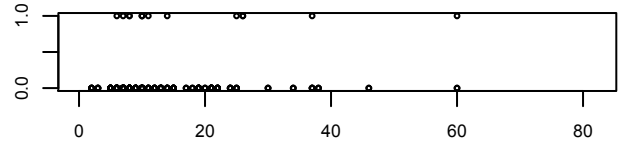
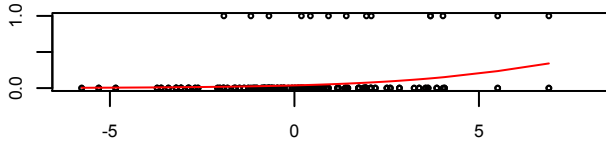


# *Sesleria caerulea*

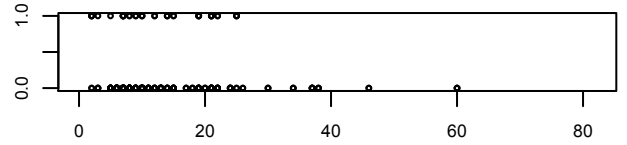
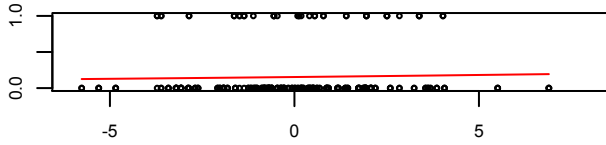
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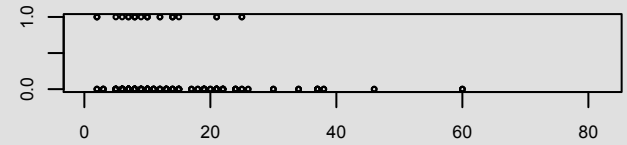
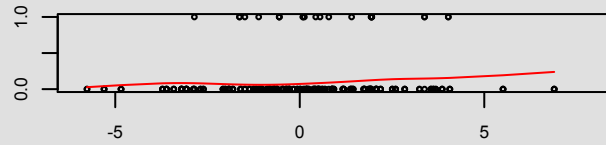
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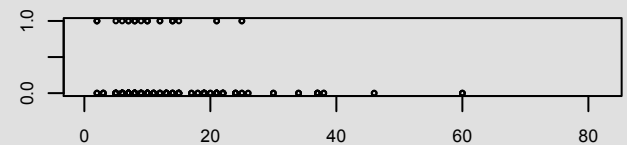
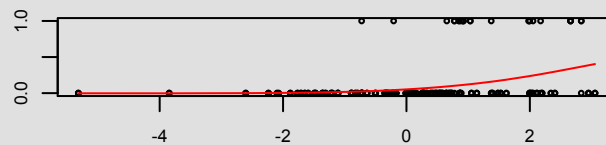
ATC\_CTN\_316.0



ATC\_CTN\_492.0



PCA 1



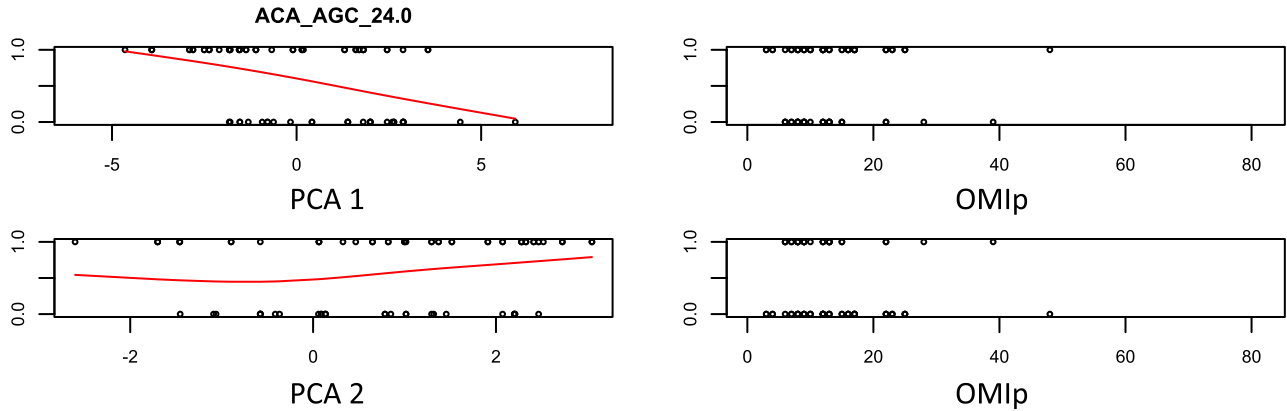
PCA 2

OMlp

OMlp

OMlp

## *Trifolium alpinum*



**Figure S3. Observed distribution (presence/absence) of each adaptive allele in the environmental gradient (summarised by the two first PCA axes) and in the niche gradient (measured by OMlp).** The results are displayed for the 19 species that have at least one adaptive locus. The right panel corresponds to the presence/absence of the adaptive allele in the niche gradient (OMlp) after data transformation (the rare allele is 1). The left panel represents the allele presence in the environmental gradient before data transformation, and the corresponding GEE fit. Loci are mostly associated with the first PCA axis (correlated with temperature and altitude). Lines are shaded to facilitate distinguishing the results between loci.