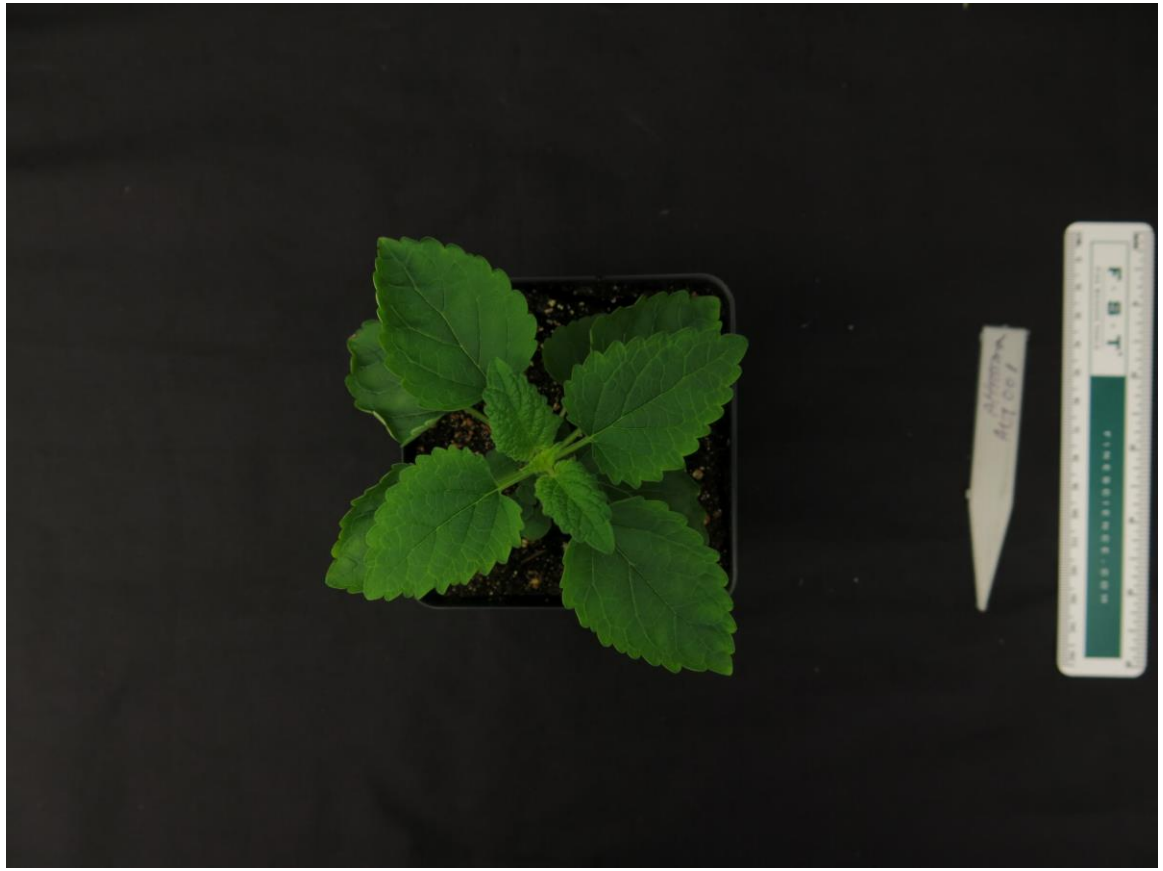
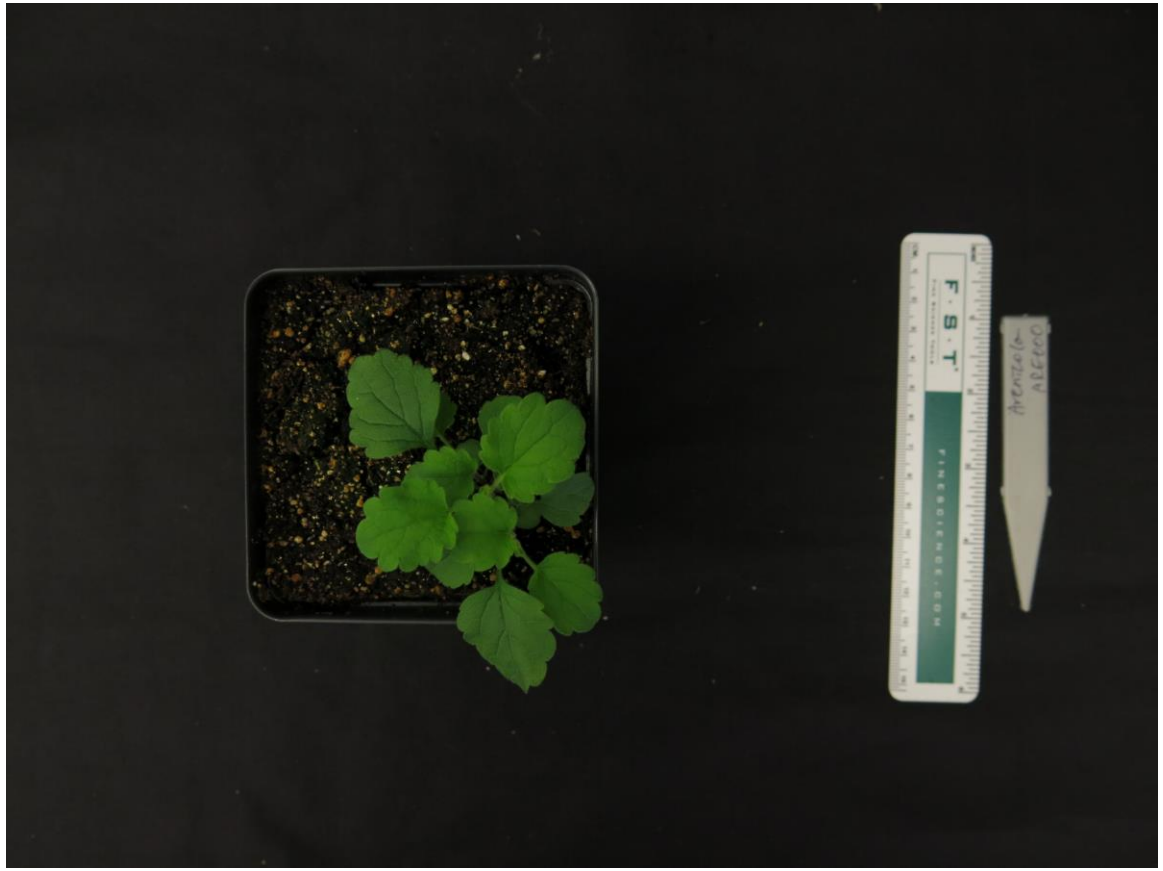
Scutellaria altissima (40 days)

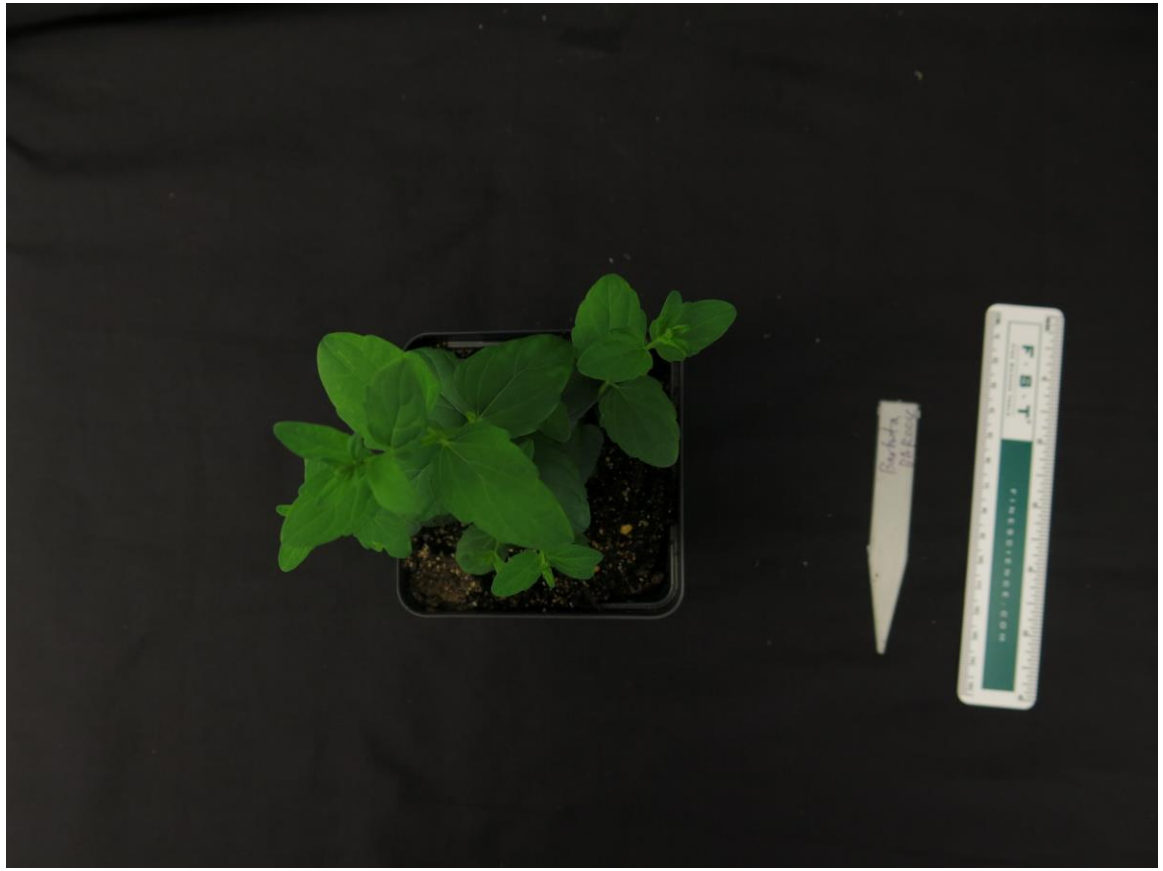


Scutellaria arenicola (40 days)



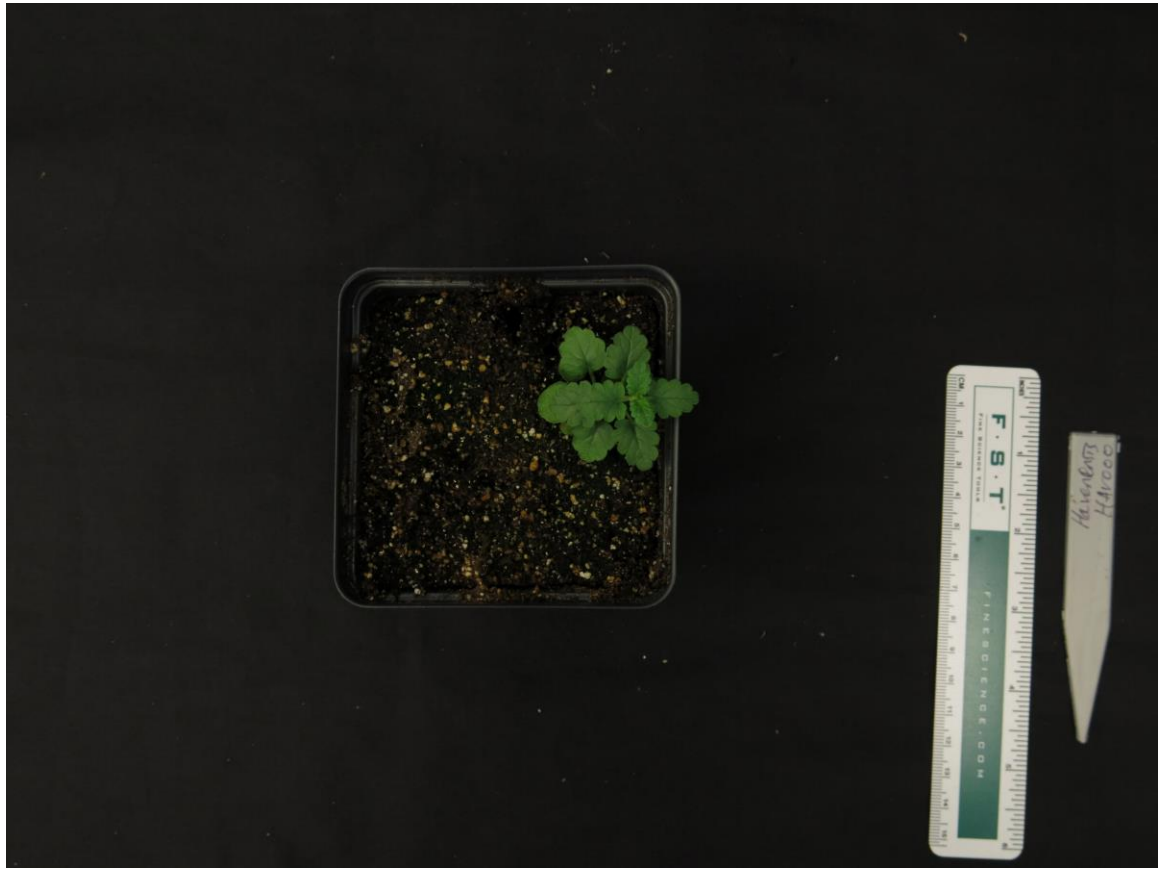
Scutellaria baicalensis (40 days)

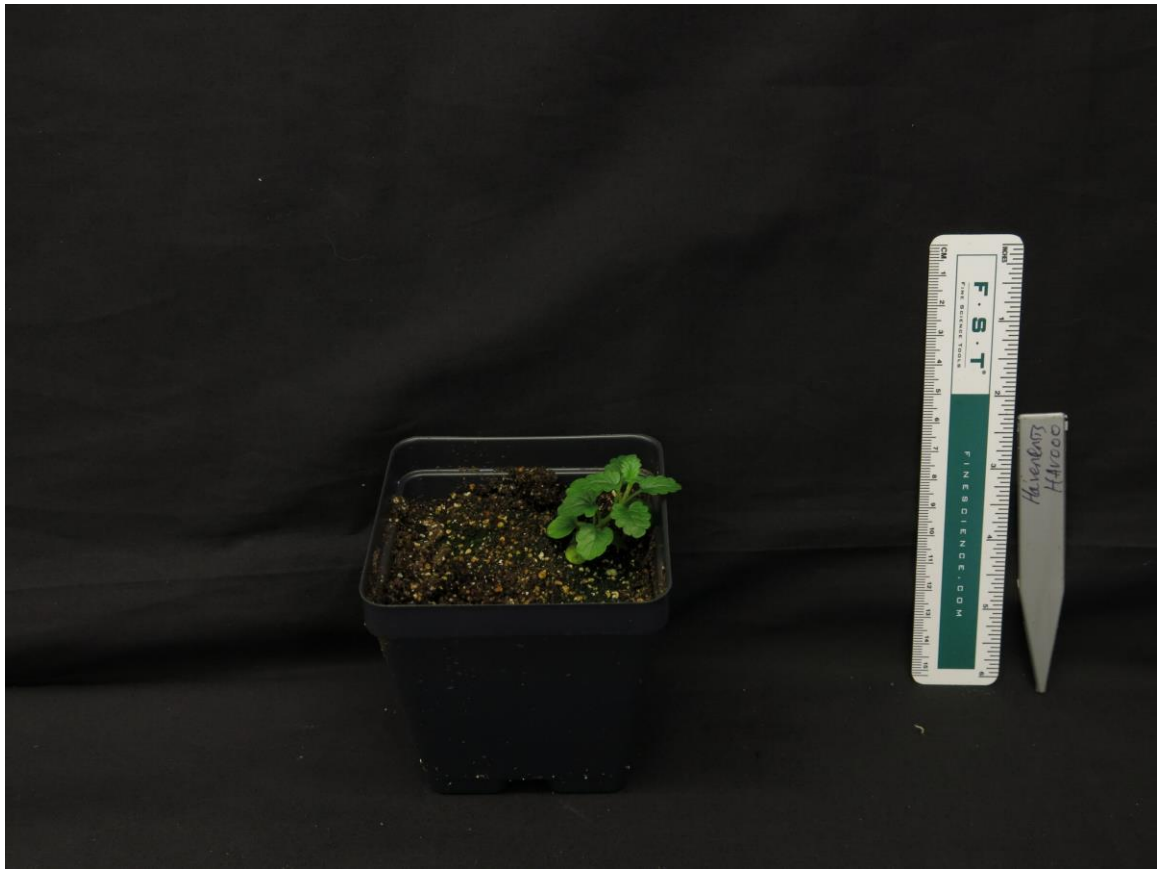
Scutellaria barbata (40 days)



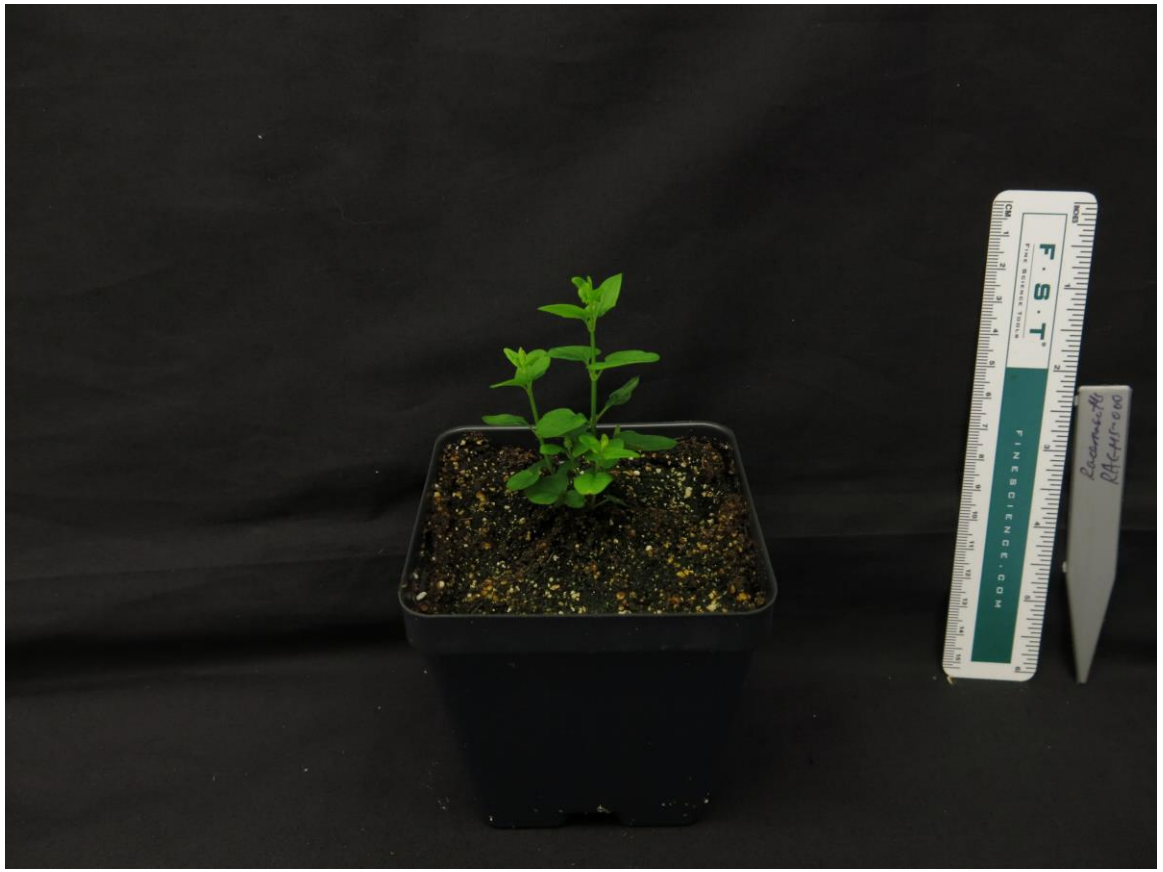
Scutellaria hastifolia (40 days)

Scutellaria havanesis (40 days)

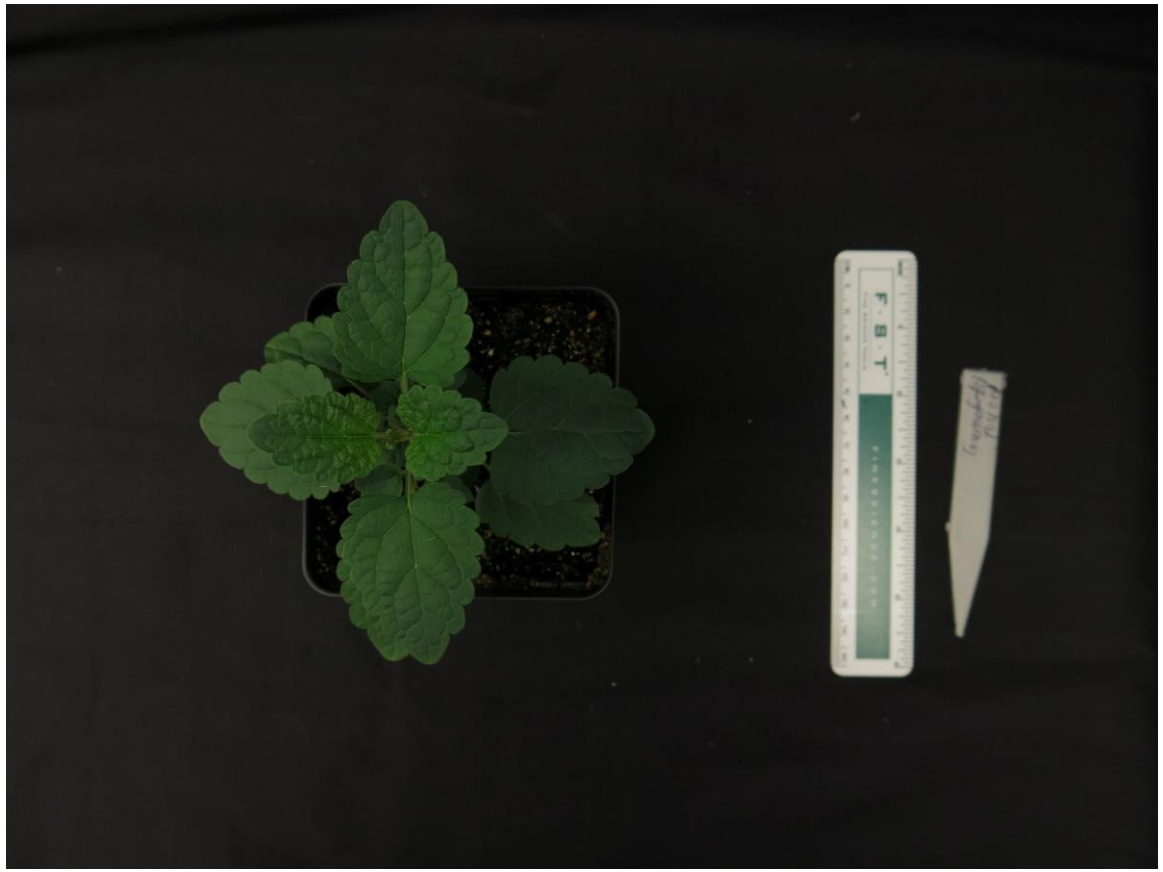




Scutellaria racemosa (40 days)



Scutellaria tournefortii (40 days)



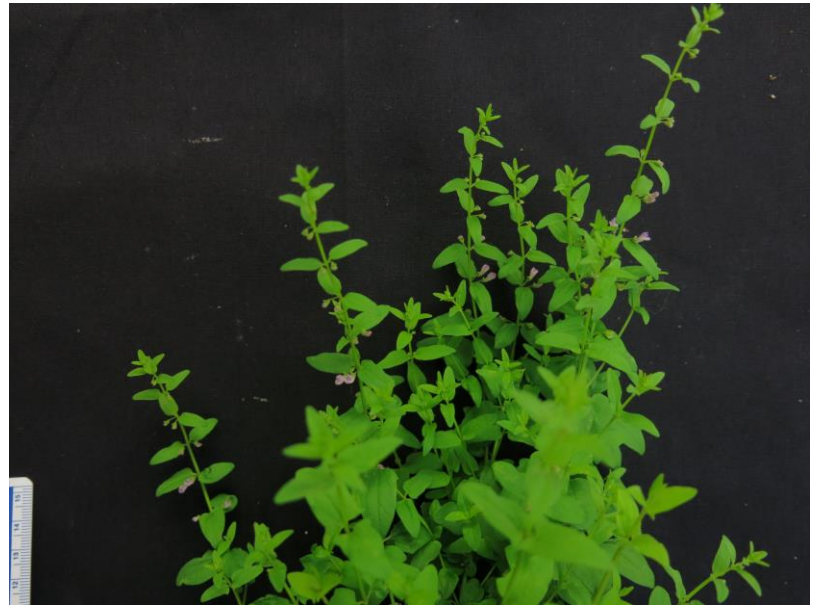
S. baicalensis, S. barbata, and *S. racemosa* (60 days)

S. baicalensis *S. barbata* *S. racemosa*

S. baicalensis, S. barbata, and *S. racemosa* (60 days)

S. baicalensis

S. barbata



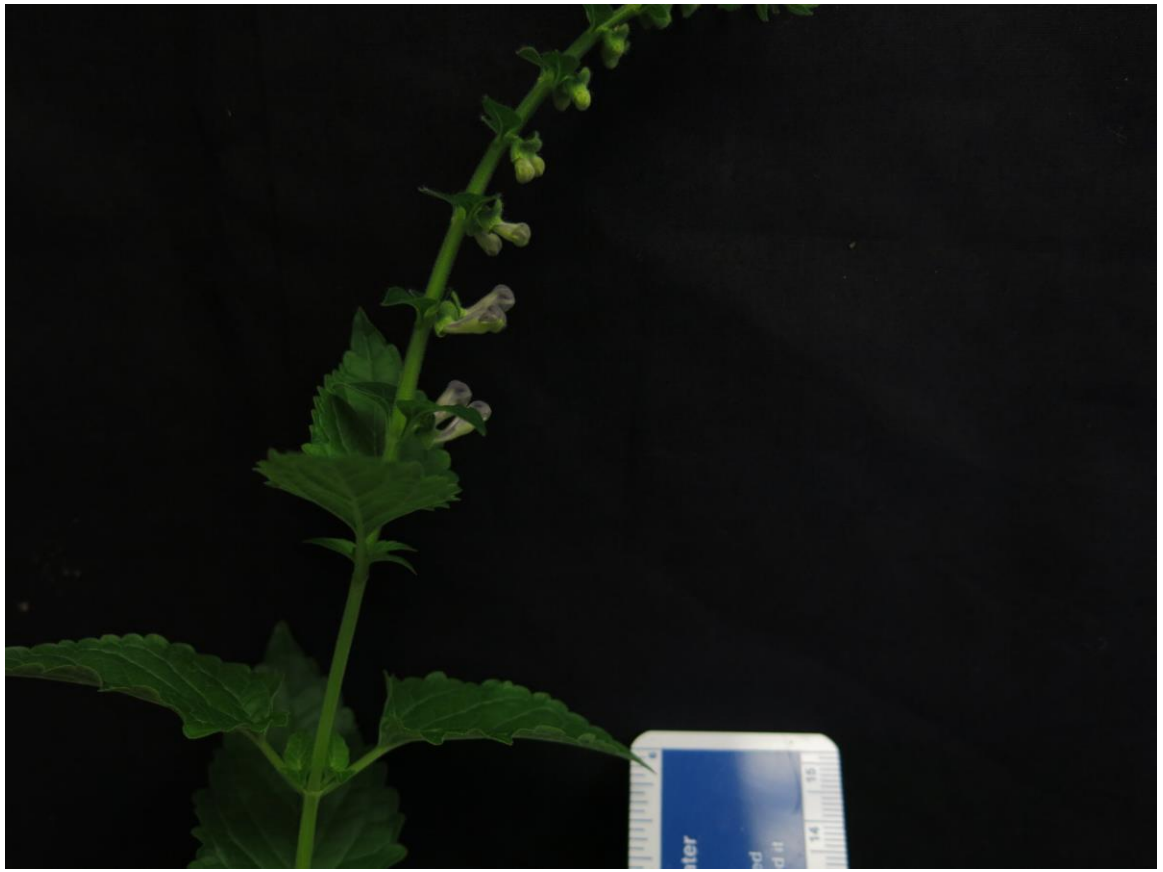
S. racemosa

S. altissima, S. tournefortii, S. arenicola, S. havanesis, and *S. hastifolia* (60 days)

S. altissima *S. arenicola* *S. hastifolia*

S. tournefortii *S. havanesis*

Scutellaria altissima (75 days)



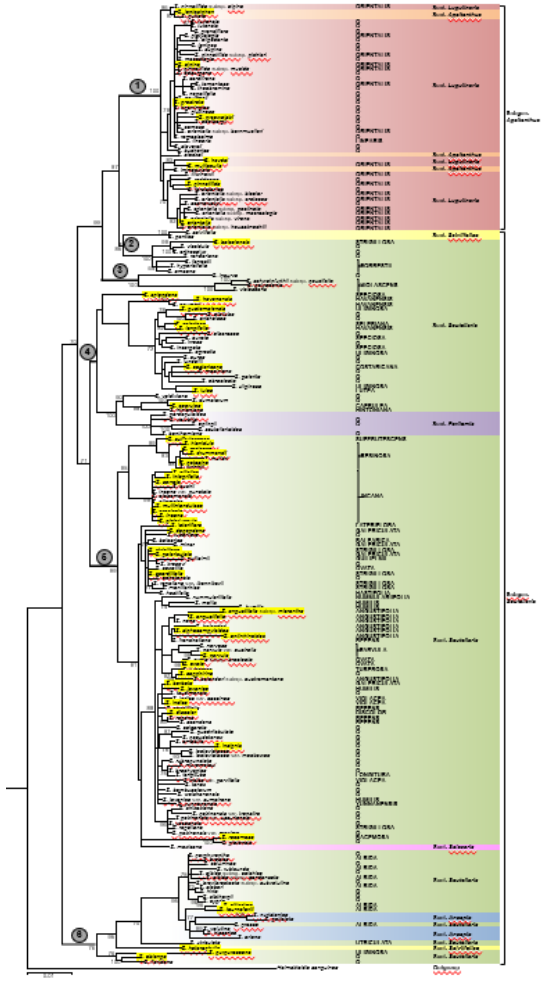
S. hastifolia and *S. tournefortii* (75 days)

S. hastifolia *S. tournefortii*

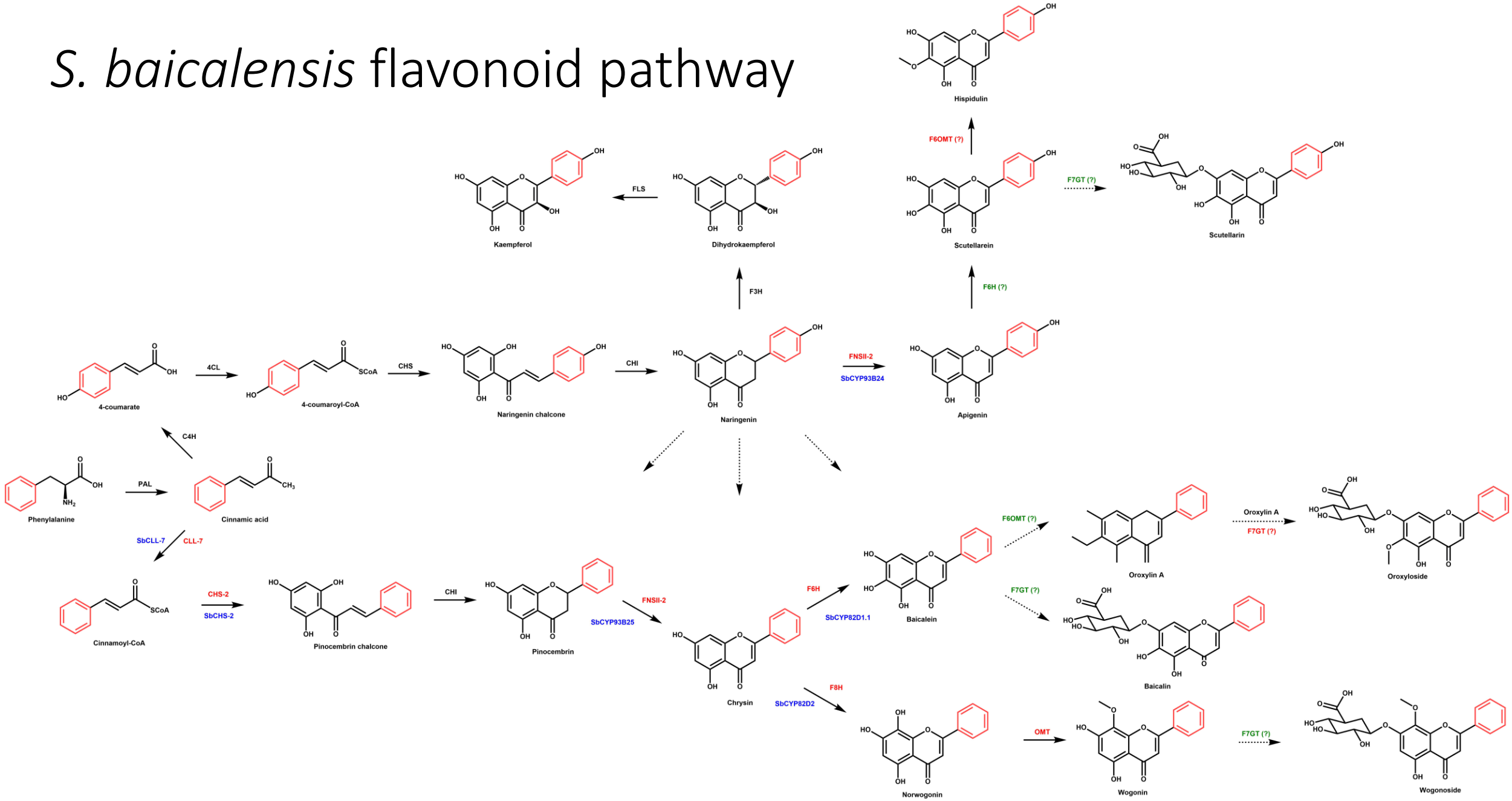
S. hastifolia *S. tournefortii*

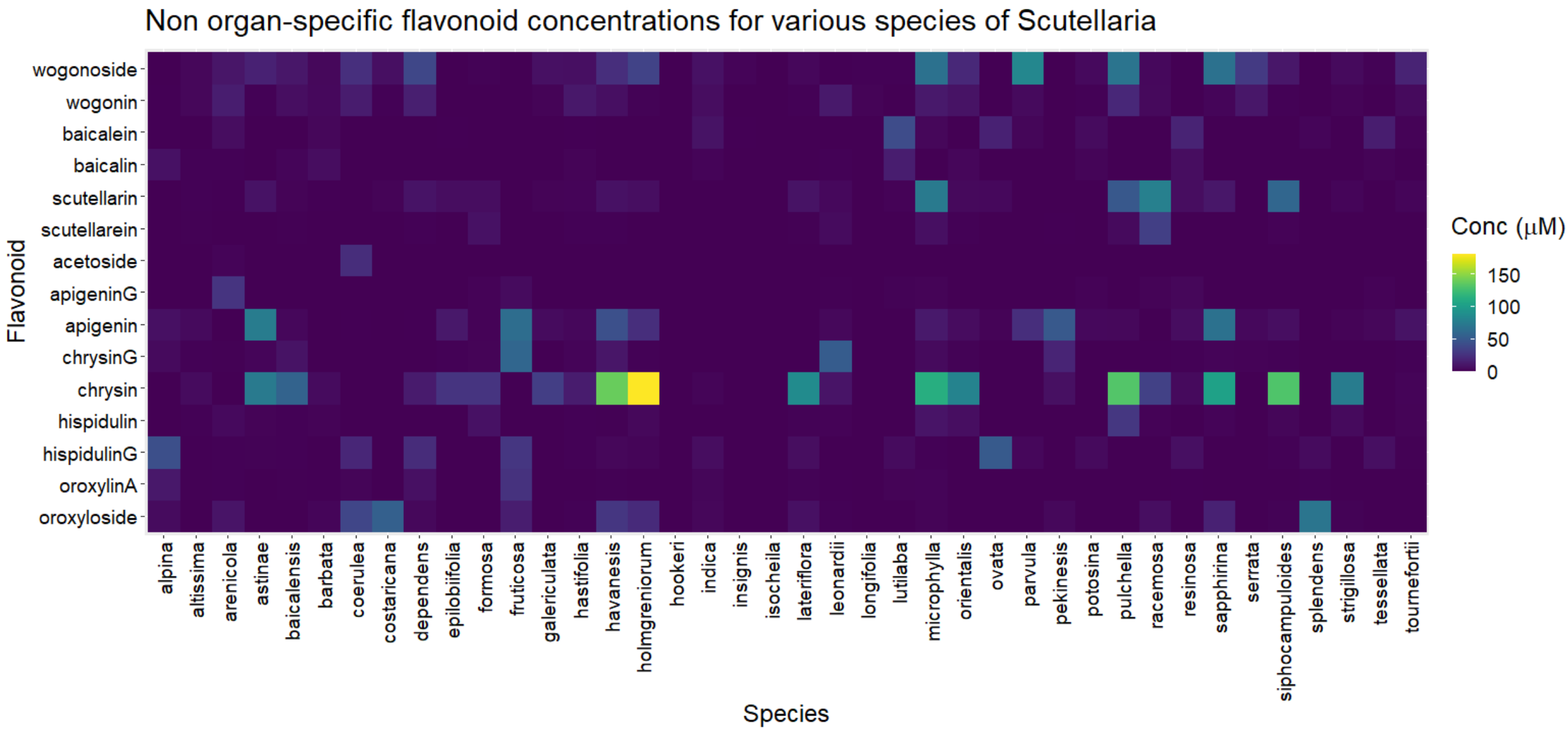
No.	Taxa	Standard Plant	1C (Mean)	SD	Genome Size (Gbp)
1	*S. altissima*	*Solanum*	0.40	0.02	0.39
2	*S. leonardii*	*Glycine*	0.51	0.02	0.50
3	*S. hastifolia*	*Solanum*	0.39	0.04	0.39
4	*S. havanensis*	*Solanum*	0.38	0.03	0.37
5	*S. arenicola*	*Glycine*	0.87	0.02	0.85
6	*S. tournefortii*	*Solanum*	0.40	0.01	0.39
7-1	*S. racemosa*	*Solanum*	0.44	0.03	0.44
8	*S. baicalensis*	*Solanum*	0.55	0.00	0.54

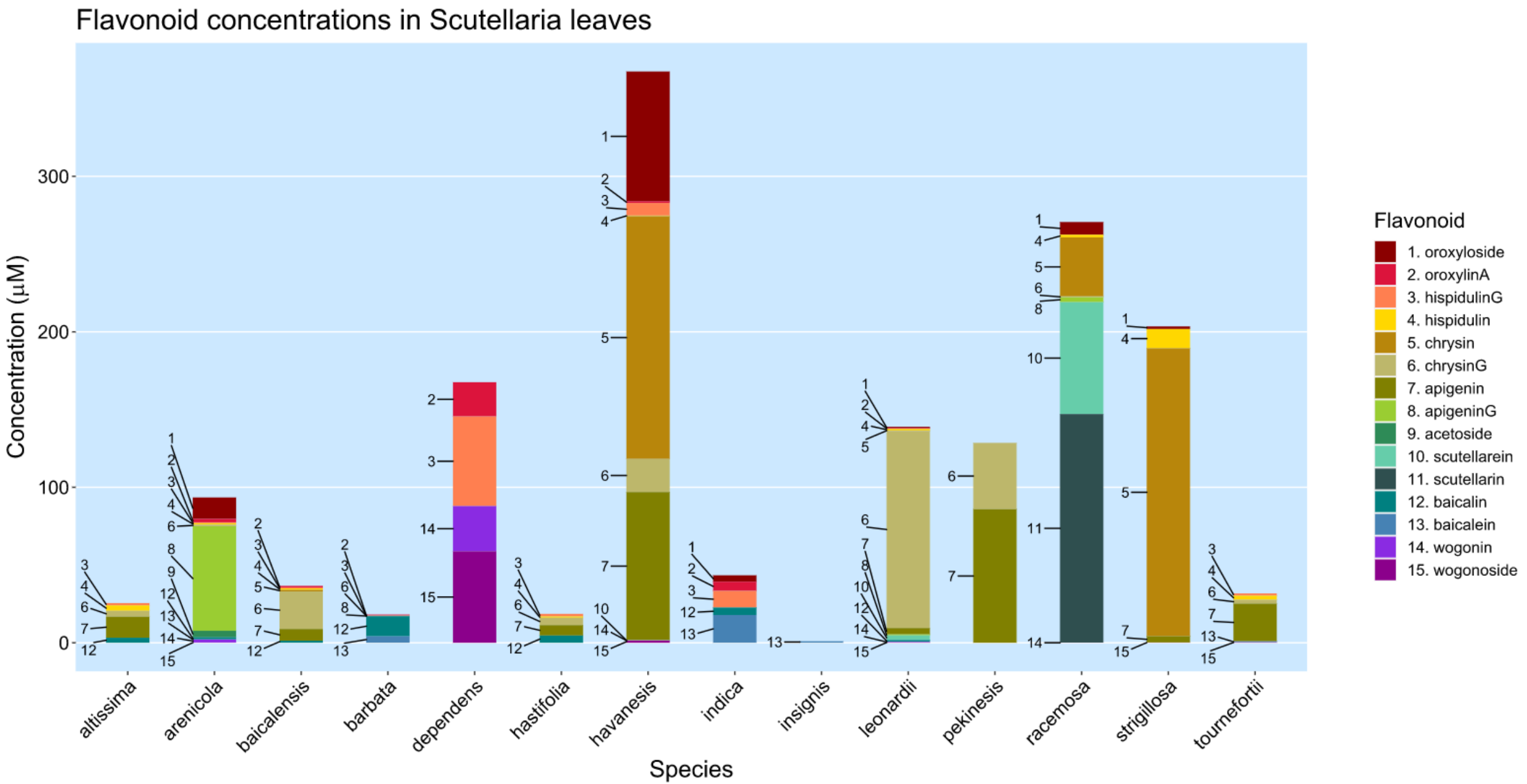
Phylogenetic tree – see other ppt file for full size

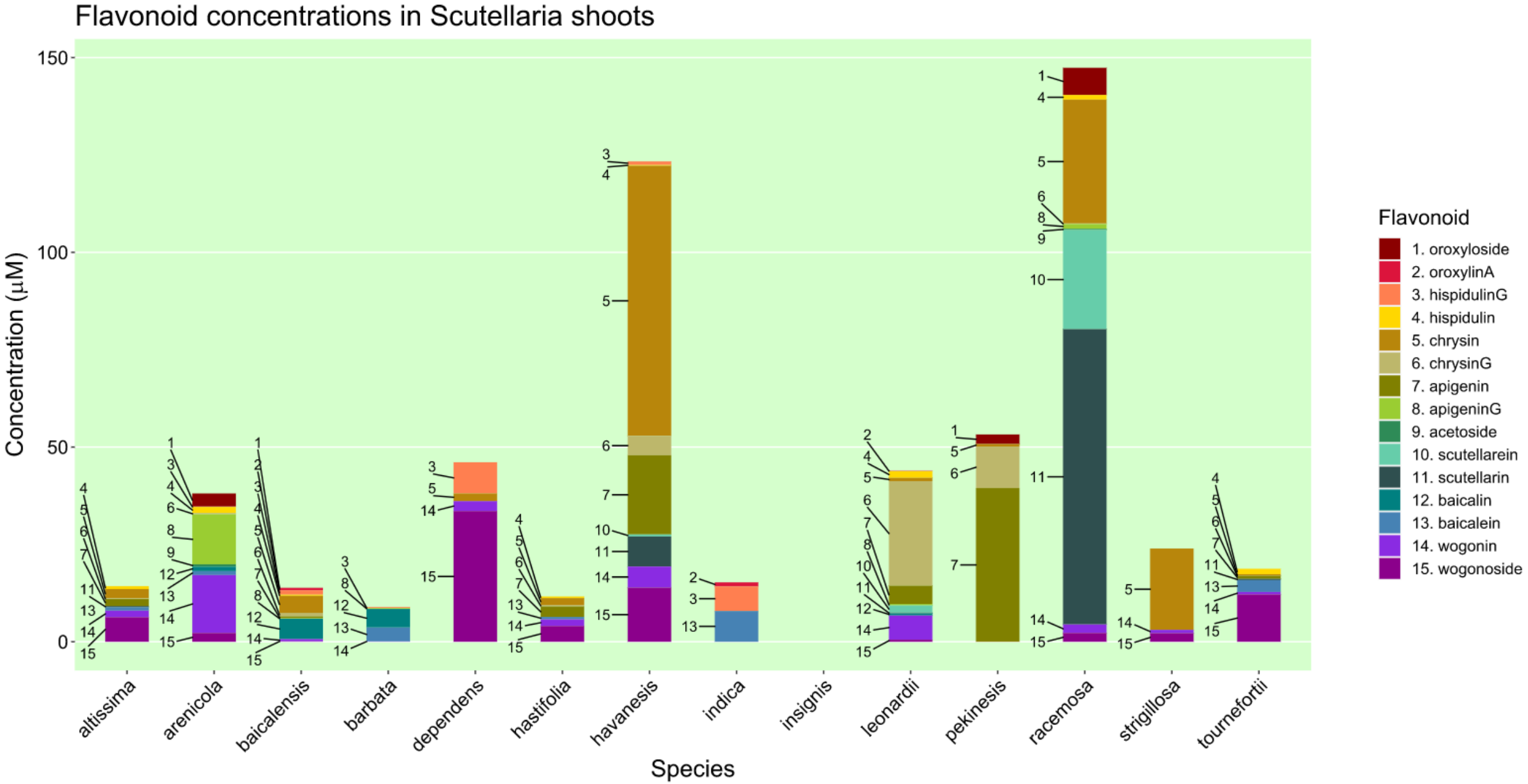


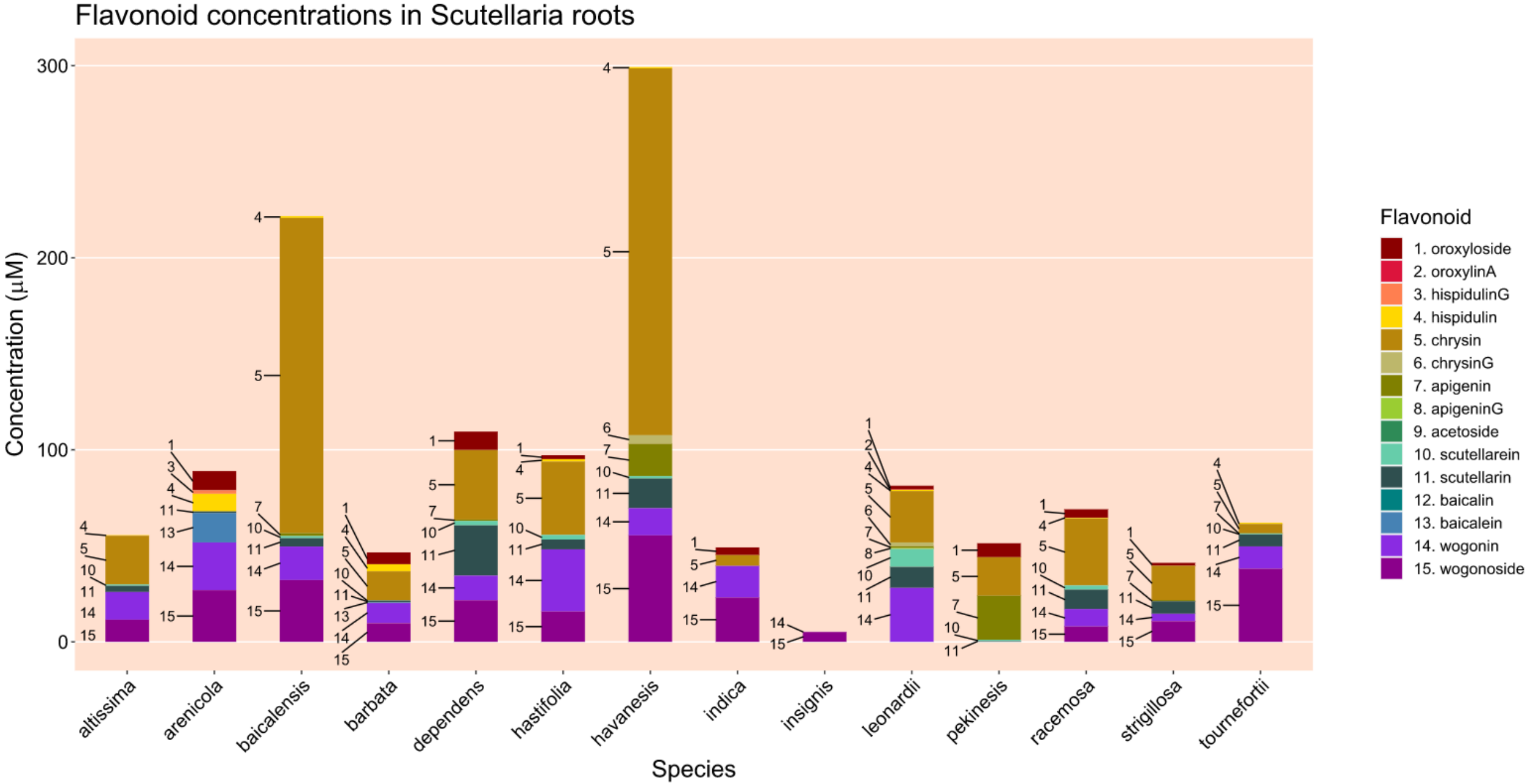
S. baicalensis flavonoid pathway




Non organ-specific flavonoid concentrations for various species of Scutellaria
Flavonoid
wogonoside
wogonin
baicalein
baicalin
scutellarin
scutellarein
acetoside
apigeninG
apigenin
chrysinG
chrysin
hispidulin
hispidulinG
oroxylinA
oroxyloside
alpina
altissima
arenicola
astinae
baicalensis
barbata
coerulea
costaricana
dependens
epilobiifolia
formosa
fruticosa
galericulata
hastifolia
havanesis
holmgreniorum
hookeri
indica
insignis
isocheila
lateriflora
leonardii
longifolia
lutilaba
microphylla
orientalis
ovata
parvula
pekinesis
potosina
pulchella
racemosa
resinosa
sapphirina
serrata
siphocampuloides
splendens
strigillosa
tessellata
tournefortii
Species
Conc (μM)
150
100
50
0


Flavonoid concentrations in Scutellaria leaves
Concentration (μM)
0
100
200
300
Species
altissima
arenicola
baicalensis
barbata
dependens
hastifolia
havanesis
indica
insignis
leonardii
pekinesis
racemosa
strigillosa
tournefortii
Flavonoid
1. oroxyloside
2. oroxylinA
3. hispidulinG
4. hispidulin
5. chrysin
6. chrysinG
7. apigenin
8. apigeninG
9. acetoside
10. scutellarein
11. scutellarin
12. baicalin
13. baicalein
14. wogonin
15. wogonoside


Flavonoid concentrations in Scutellaria shoots
Concentration (μM)
150
100
50
0
altissima
arenicola
baicalensis
barbata
dependens
hastifolia
havanesis
indica
insignis
leonardii
pekinesis
racemosa
strigillosa
tournefortii
Species
Flavonoid
1. oroxyloside
2. oroxylinA
3. hispidulinG
4. hispidulin
5. chrysin
6. chrysinG
7. apigenin
8. apigeninG
9. acetoside
10. scutellarein
11. scutellarin
12. baicalin
13. baicalein
14. wogonin
15. wogonoside


Flavonoid concentrations in Scutellaria roots
Concentration (μM)
300
200
100
0
altissima
arenicola
baicalensis
barbata
dependens
hastifolia
havanesis
indica
insignis
leonardii
pekinesis
racemosa
strigillosa
tournefortii
Species
Flavonoid
1. oroxyloside
2. oroxylinA
3. hispidulinG
4. hispidulin
5. chrysin
6. chrysinG
7. apigenin
8. apigeninG
9. acetoside
10. scutellarein
11. scutellarin
12. baicalin
13. baicalein
14. wogonin
15. wogonoside

Species	Reads mapped	Reads mapped and paired	SNPs	Indels
altissima	51%	45%	4806017	45672
barbata	52%	45%	5955047	74204
havanesis	65%	60%	6867385	275630
racemosa	49%	43%	5987918	72433

For alignment to baicalensis reference genome with bwa algorithm and variant calling with mapping quality and base quality > 20