Supplementary Table 1: Varieties and origin of plants used in this study.

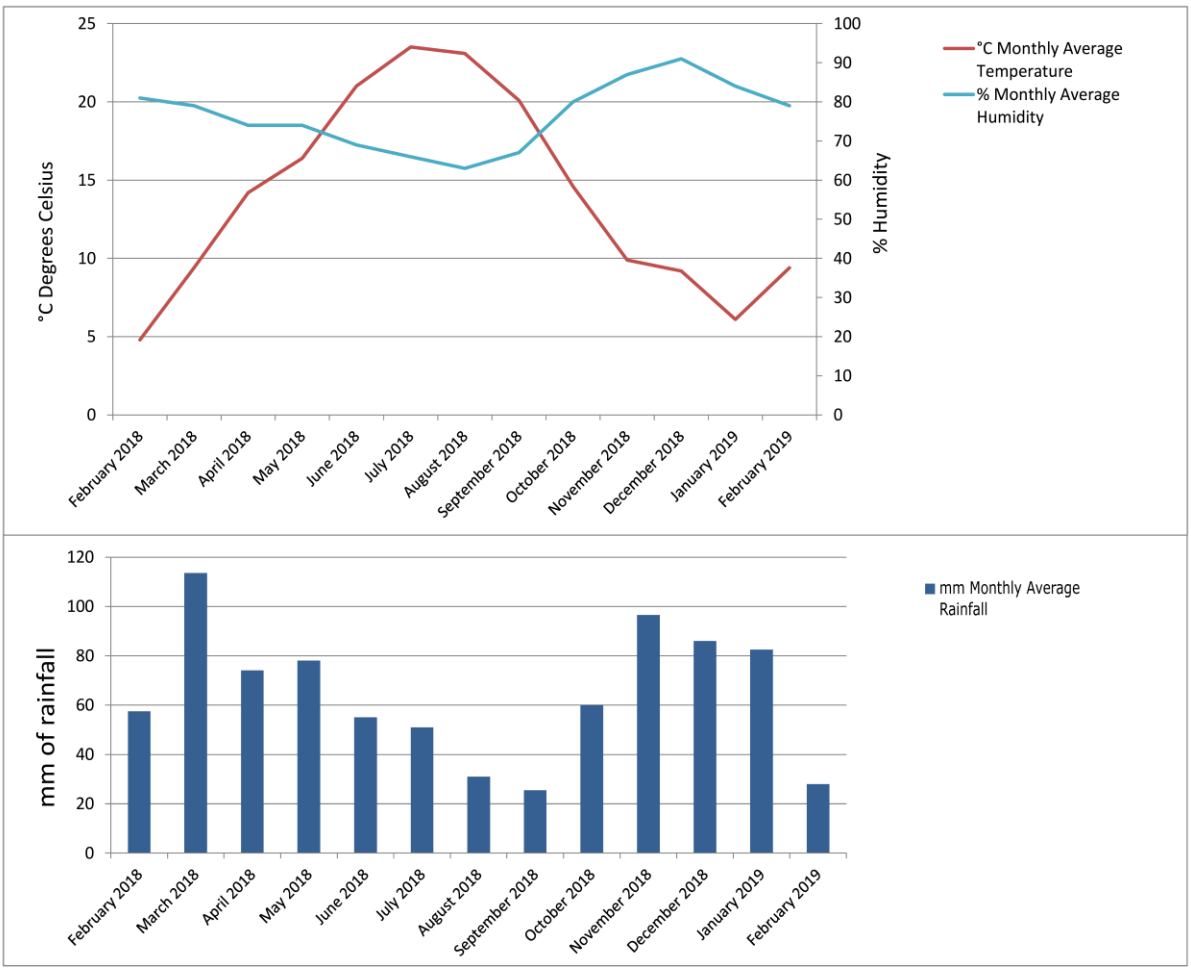
Plant name	Origin
Vitis berlandieri 11114	American
Vitis berlandieri 10094	
Vitis berlandieri 10455	
Vitis berlandieri 11184	
Vitis arizonica Wetmore	American
Vitis arizonica Engelmann	
Vitis simpsonii 10968	American
Vitis cinerea 10139	American
Vitis cinerea 10943	
Vitis cinerea 10568	
Vitis riparia 10525	American
Vitis riparia Pulliat	
Vitis riparia 10714	
Vitis riparia 10709	
Vitis longii 10942	American
Vitis longii 587-02	
Vitis longii 50 D	
Vitis piazeskii 50 F (fx)	Asian
Vitis piazeskii 2164	
Vitis davidii 2486	Asian
Vitis davidii 49 K	
Vitis monticola 10111	American
Vitis monticola 50 E	
Vitis candicans 10096	American
Vitis candicans EM	
Vitis candicans 10189	
Vitis cordifolia 11018	American
Vitis cordifolia n°9 couderc	
Vitis cordifolia 10551	
Vitis thumbergii 2492	Asian
Vitis rubra 10924	American
Vitis rubra 10919	
Vitis rupestris Ganzin	American
Vitis rupestris Pullans	
Vitis rupestris 10400	
Vitis rupestris 10733	
Vitis rupestris Martin	
Vitis rupestris Mission	
Vitis rupestris 10466	
Vitis vinifera cv. Merlot	Europe
Vitis vinifera cv. Pinot Noir	
Vitis vinifera cv. Cabernet Sauvignon	
Vitis vinifera cv. Petit Manseng	
Vitis vinifera cv. Chardonnay	
Vitis vinifera cv. Petit Verdot	
Vitis vinifera cv. Carmenere	
Vitis vinifera cv. Tannat	
Vitis vinifera cv. Syrah	
Vitis vinifera cv. Cot	
Vitis vinifera cv. Mouvedre	
Vitis vinifera cv. Muscadelle	

Supplementary Table 2: Analysis parameters for the 36 polyphenols for HPLC-QqQ in MRM mode.

	Rt (min)	***Fragmentor (V)***	***Precursor Ion***	***CE (eV)***	***Quantifier***	***CE (eV)***	***Qualifier***	***Ratio q/Q***	***Ion Polarity***
Acids phenol									
gallic acid	4.07	112	**169**	12	**125**	20	**79**	8	Negative
caftaric acid	9.30	88	**311**	4	**149**	20	**135**	96	Negative
caffeic acid	10.98	54	**181**	8	**163**	32	**89**	44	Positive
Favanols									
catechin	9.50	100	**291**	12	**139**	12	**123**	43	Positive
epicatechin	10.60	100	**291**	12	**139**	12	**123**	45	Positive
procyanidin b1	9.20	16	**577**	15	**289**	15	**407**	75	Negative
procyanidin b2	10.20	160	**577**	15	**289**	15	**407**	85	Negative
procyanidin b3	8.80	160	**577**	15	**289**	15	**407**	73	Negative
procyanidin b4	9.90	160	**577**	15	**289**	15	**407**	81	Negative
Flavonols									
quercetin	16.79	178	**301**	12	**151**	8	**179**	32	Negative
quercetin-3-glucoside	13.18	144	**463**	16	**301**	44	**271**	66	Negative
quercetin-3-galactoside	13.00	144	**463**	16	**301**	44	**271**	55	Negative
quercetin-3-glucuronide	13.12	124	**477**	16	**301**	40	**151**	12	Negative
quercetin-3-rhamnoside	14.10	158	**447**	16	**301**	40	**271**	39	Negative
quercetin-3-rutinoside	12.79	216	**609**	28	**301**	60	**271**	57	Negative
kaempferol-3-glucoside	14.00	194	**447**	48	**227**	16	**285**	86	Negative
Stilbenes									
t-resveratrol	12.96	100	**229**	12	**135**	20	**107**	87	Positive
c-piceid	14.58	150	**389**	4	**227**	44	**143**	9	Negative
t-piceid	12.95	150	**389**	4	**227**	44	**143**	8	Negative
piceatannol	11.73	100	**245**	12	**135**	24	**107**	55	Positive
c-astringin	13.40	150	**405**	8	**243**	44	**201**	4	Negative
t-astringin	11.73	150	**405**	8	**243**	44	**201**	3	Negative
c-ε-viniferin	17.70	154	**455**	12	**349**	36	**107**	70	Positive
t-ε-viniferin	18.00	154	**455**	20	**215**	36	**107**	99	Positive
ω-viniferin	18.80	154	**455**	20	**215**	36	**107**	96	Positive
δ-viniferin	19.30	154	**455**	12	**361**	12	**349**	72	Positive
pallidol	14.82	154	**455**	12	**361**	20	**215**	73	Positive
parthenocissine A	15.70	154	**455**	12	**361**	12	**349**	72	Positive
ampelopsine A	13.69	154	**469**	8	**451**				Negative
vitisinol A	17.99	125	**429**	40	**107**	24	**121**	59	Positive
alpha-viniferin	18.92	162	**679**	28	**359**	20	**453**	84	Positive
miyabenol	18.29	170	**681**	16	**575**	52	**107**	43	Positive
hopeaphenol	16.94	218	**908**	36	**359**	13	**453**	55	Positive
isohopeaphenol	17.10	218	**908**	13	**453**	36	**359**	78	Positive
r2-viniferin	18.70	218	**908**	24	**559**	12	**361**	44	Positive
r-viniferin	19.80	218	**908**	24	**559**	12	**361**	58	Positive

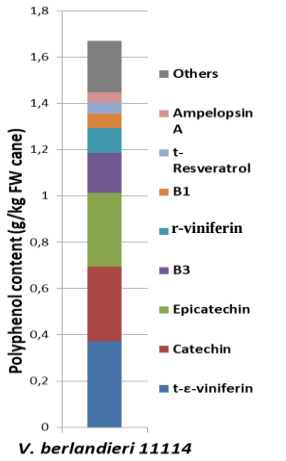
Supplementary table 3: Validation parameters of the calibration curve. Interday and intraday variability were calculated as the coefficient of variation (CV) of 3 quality controls analyzed on the same day and on 3 consecutive days respectively.

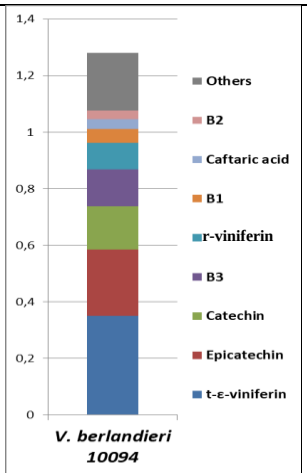
	slope	***o.o***	***Weighting***	***R2***	***LOD (mg/L)***	***LOQ (mg/L)***	***linearity interval***	***CV (%) intraday***	***CV (%) interday***
Acids phenol									
gallic acid	8 747	129	none	0,9993	0,030	0,101	0,101-14	1,9	1,8
caftaric acid	15 622	6,2	none	0,9992	0,006	0,018	0,018-14	0,7	2,7
caffeic acid	114 081	7193	none	0,997	0,038	0,125	0,125-14	4,8	8
Favanols									
catechin	160 373	8047	none	0,9991	0,006	0,018	0,018-14	1,8	0,5
epicatechin	226 323	8591	none	0,998	0,006	0,021	0,021-14	1,7	1,4
procyanidin b1	9 242	39	none	0,9993	0,020	0,067	0,067-14	1,7	6,9
procyanidin b2	7 145	43	none	0,997	0,017	0,058	0,058-14	0,7	8,5
Flavonols									
quercetin	12 982	449	1/x	0,994	0,029	0,095	0,095-7	9,3	11,2
quercetin-3-glucoside	24 102	589	1/x	0,998	0,013	0,043	0,043-7	4,8	4,6
quercetin-3-galactoside	12 626	477	1/x	0,997	0,044	0,147	0,147-7	6,1	13,5
quercetin-3-glucuronide	35 441	2344	1/x	0,998	0,014	0,047	0,047-14	2,18	4,7
quercetin-3-rhamnoside	32 007	238	1/x	0,998	0,006	0,021	0,021-7	5,2	7,7
quercetin-3-rutinoside	21 230	411	1/x	0,997	0,032	0,106	0,106-14	10,4	12,2
kaempferol-3-glucoside	10 746	815	1/x	0,998	0,009	0,030	0,030-7	4,5	13,9
Stilbenes									
t-resveratrol	49 273	371	1/x	0,998	0,034	0,115	0,115-14	0,9	1,7
t-piceid	34 911	471	1/x	0,9965	0,030	0,099	0,099-7	2,7	6,6
piceatannol	15 964	972	1/x	0,9978	0,046	0,153	0,153-14	5,6	7,3
t-astringin	35 282	388	1/x	0,996	0,023	0,078	0,078-7	4,1	4,5
t-ε-viniferin	115 762	1554	1/x	0,996	0,010	0,034	0,034-7	1,8	3,1
ω-viniferin	151 424	810	1/x	0,995	0,014	0,048	0,048-7	3	4
δ-viniferin	143 232	718	1/x	0,998	0,019	0,065	0,065-7	7,7	12,6
pallidol	195 743	585	1/x	0,9997	0,006	0,020	0,020-14	1,4	9,2
parthenocissine A	56 378	-18	1/x	0,998	0,017	0,058	0,058-25	2,1	7,6
ampelopsine A	29 055	321	1/x	0,997	0,006	0,018	0,018-14	2,4	4,1
vitisinol C	109 230	3412	1/x	0,998	0,013	0,044	0,044-14	4,8	6,3
alpha-viniferin	56 413	595	1/x	0,995	0,017	0,057	0,057-14	4,2	10,5
miyabenol	68 175	569	1/x	0,998	0,021	0,070	0,070-14	1,1	6,3
hopeaphenol	98 796	693	1/x	0,997	0,006	0,019	0,019-14	5,5	8,2
isohopeaphenol	23 221	38	1/x	0,997	0,026	0,085	0,085-25	6,3	9,1
r2-viniferin	35 226	191	1/x	0,997	0,006	0,017	0,017-7	7,2	11,1
r-viniferin	18 909	265	1/x	0,98	0,019	0,064	0,064-7	7,1	11,1

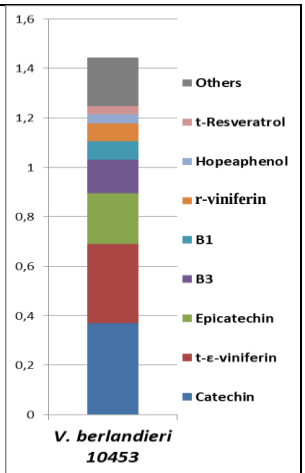


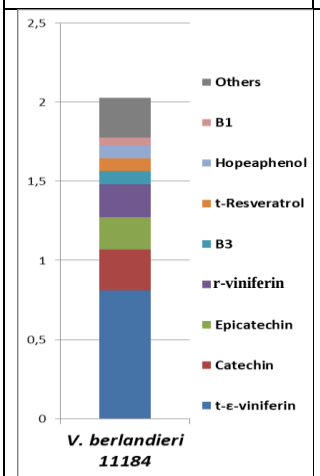
Supplementary Figure 1: Monthly average of temperature, humidity and rainfall from February 2018 to February 2019.

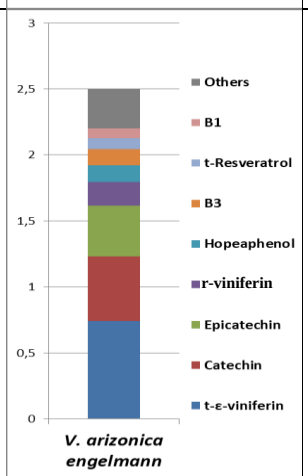
Americain wild *Vitis*

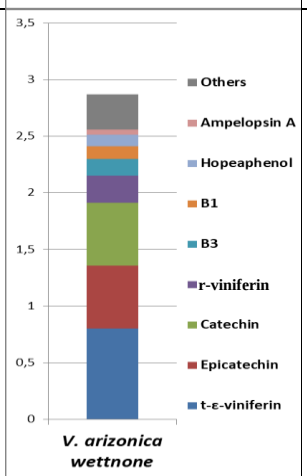


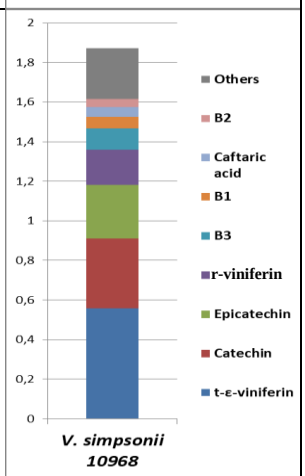


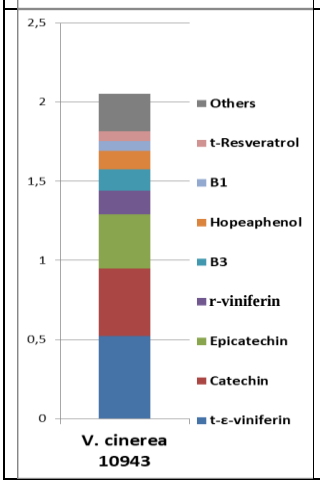


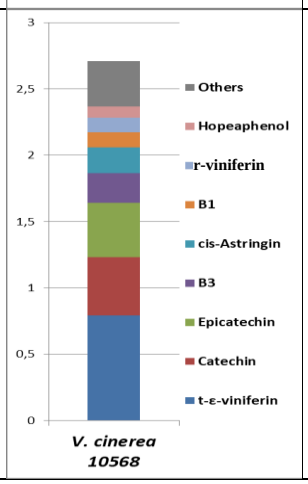


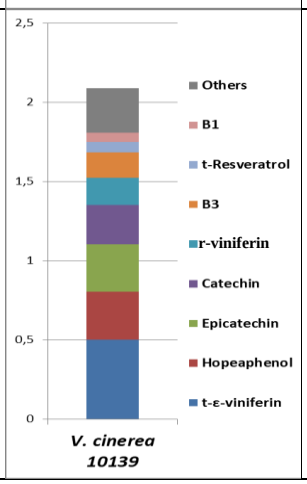


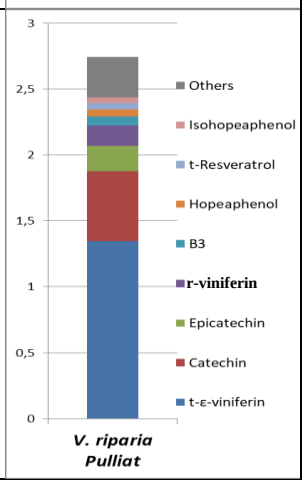


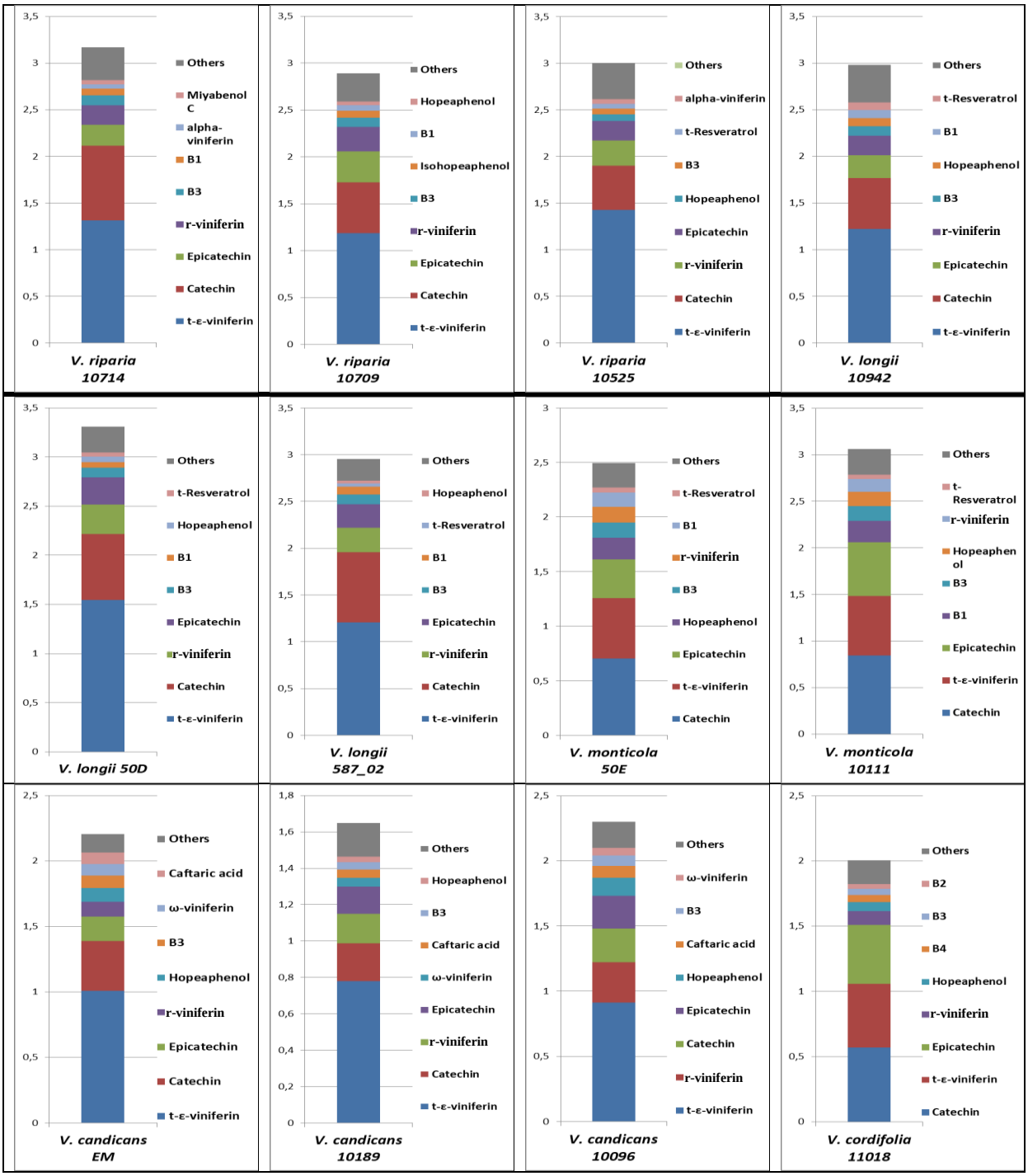


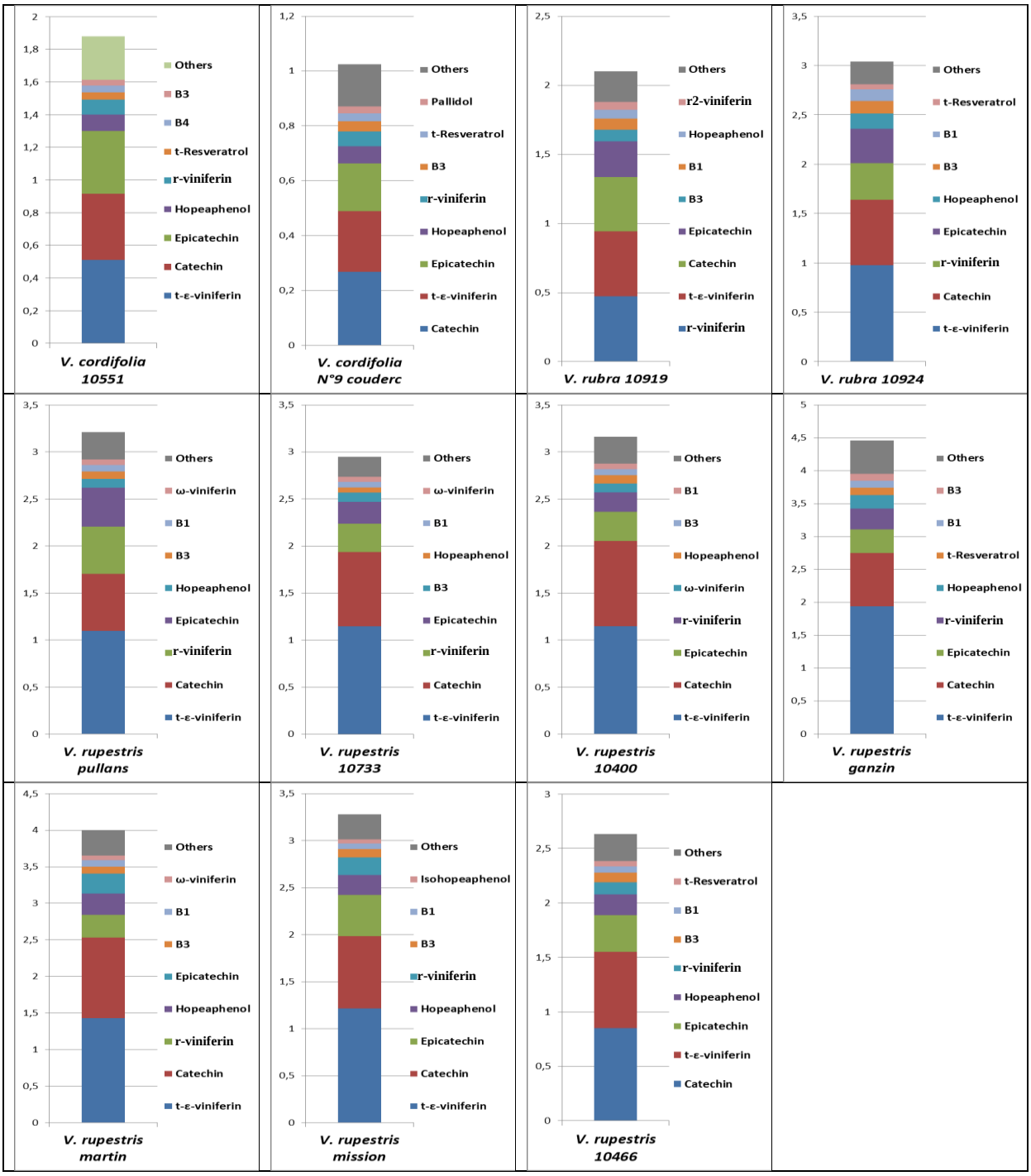




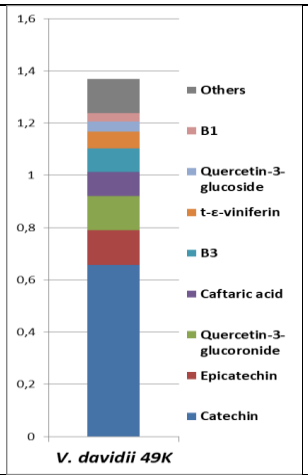


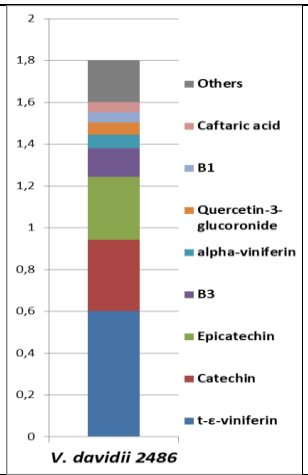


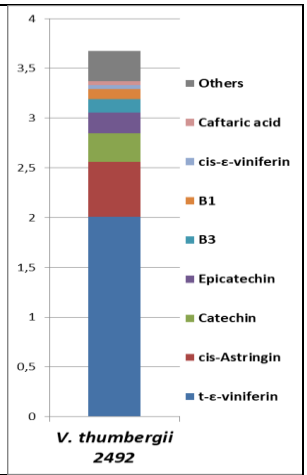

V. riparia 10714
Others
Miyabenol C
alpha-viniferin
B1
B3
r-viniferin
Epicatechin
Catechin
t-ε-viniferin
V. riparia 10709
Others
Hopeaphenol
B1
Isohopeaphenol
B3
r-viniferin
Epicatechin
Catechin
t-ε-viniferin
V. riparia 10525
Others
alpha-viniferin
t-Resveratrol
B3
Hopeaphenol
Epicatechin
r-viniferin
Catechin
t-ε-viniferin
V. longii 10942
Others
t-Resveratrol
B1
Hopeaphenol
B3
r-viniferin
Epicatechin
Catechin
t-ε-viniferin
V. longii 50D
Others
t-Resveratrol
Hopeaphenol
B1
B3
Epicatechin
r-viniferin
Catechin
t-ε-viniferin
V. longii 587_02
Others
Hopeaphenol
t-Resveratrol
B1
B3
Epicatechin
r-viniferin
Catechin
t-ε-viniferin
V. monticola 50E
Others
t-Resveratrol
B1
r-viniferin
B3
Hopeaphenol
Epicatechin
t-ε-viniferin
Catechin
V. monticola 10111
Others
t-Resveratrol
r-viniferin
Hopeaphenol
B3
B1
Epicatechin
t-ε-viniferin
Catechin
V. candicans EM
Others
Caftaric acid
ω-viniferin
B3
Hopeaphenol
r-viniferin
Epicatechin
Catechin
t-ε-viniferin
V. candicans 10189
Others
Hopeaphenol
B3
Caftaric acid
ω-viniferin
Epicatechin
r-viniferin
Catechin
t-ε-viniferin
V. candicans 10096
Others
ω-viniferin
B3
Caftaric acid
Hopeaphenol
Epicatechin
Catechin
r-viniferin
t-ε-viniferin
V. cordifolia 11018
Others
B2
B3
B4
Hopeaphenol
r-viniferin
Epicatechin
t-ε-viniferin
Catechin

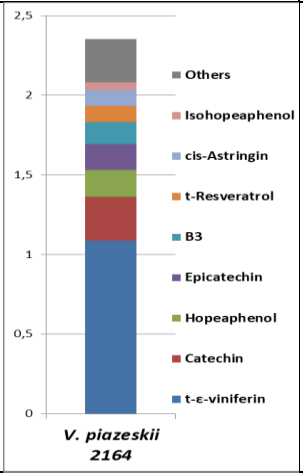

V. cordifolia 10551
Others
B3
B4
t-Resveratrol
r-viniferin
Hopeaphenol
Epicatechin
Catechin
t-ε-viniferin
V. cordifolia N°9 couderc
Others
Pallidol
t-Resveratrol
B3
r-viniferin
Hopeaphenol
Epicatechin
t-ε-viniferin
Catechin
V. rubra 10919
Others
r2-viniferin
Hopeaphenol
B1
B3
Epicatechin
Catechin
t-ε-viniferin
r-viniferin
V. rubra 10924
Others
t-Resveratrol
B1
B3
Hopeaphenol
Epicatechin
r-viniferin
Catechin
t-ε-viniferin
V. rupestris pullans
Others
ω-viniferin
B1
B3
Hopeaphenol
Epicatechin
r-viniferin
Catechin
t-ε-viniferin
V. rupestris 10733
Others
ω-viniferin
B1
Hopeaphenol
B3
Epicatechin
r-viniferin
Catechin
t-ε-viniferin
V. rupestris 10400
Others
B1
B3
Hopeaphenol
ω-viniferin
r-viniferin
Epicatechin
Catechin
t-ε-viniferin
V. rupestris ganzin
Others
B3
B1
t-Resveratrol
Hopeaphenol
r-viniferin
Epicatechin
Catechin
t-ε-viniferin
V. rupestris martin
Others
ω-viniferin
B1
B3
Epicatechin
Hopeaphenol
r-viniferin
Catechin
t-ε-viniferin
V. rupestris mission
Others
Isohopeaphenol
B1
B3
r-viniferin
Hopeaphenol
Epicatechin
Catechin
t-ε-viniferin
V. rupestris 10466
Others
t-Resveratrol
B1
B3
r-viniferin
Hopeaphenol
Epicatechin
t-ε-viniferin
Catechin

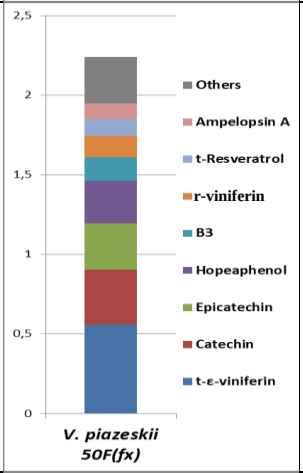
Asian wild *Vitis*



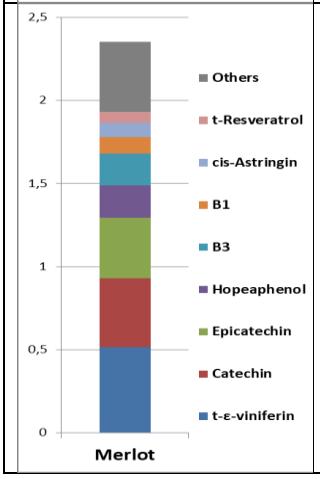


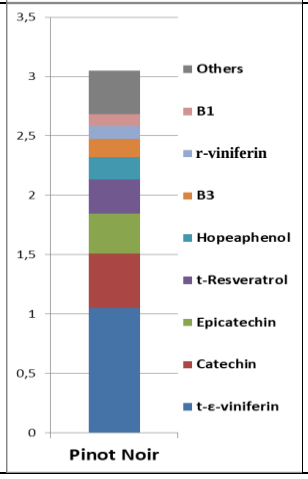


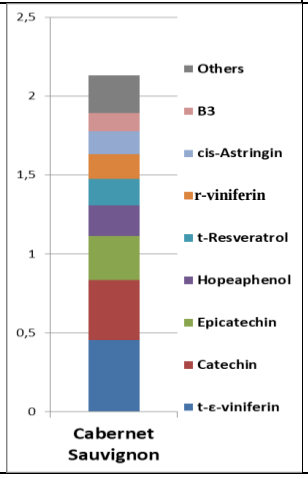


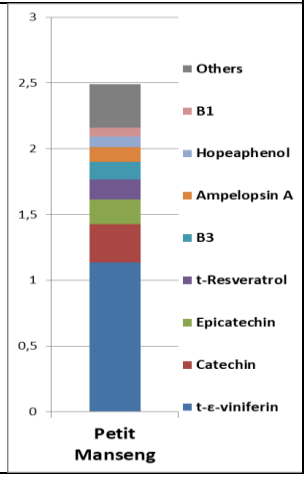


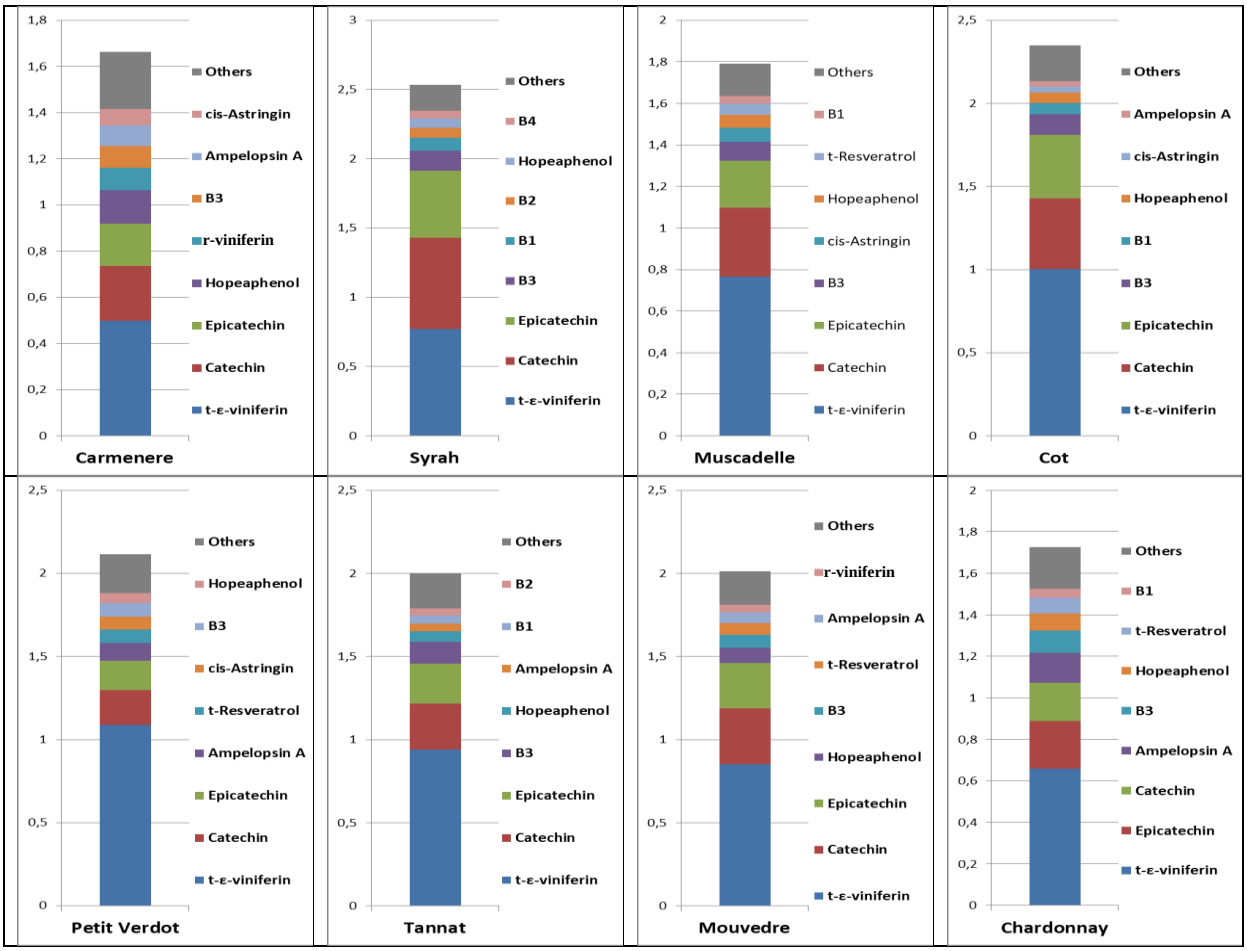
V. vinifera cultivars



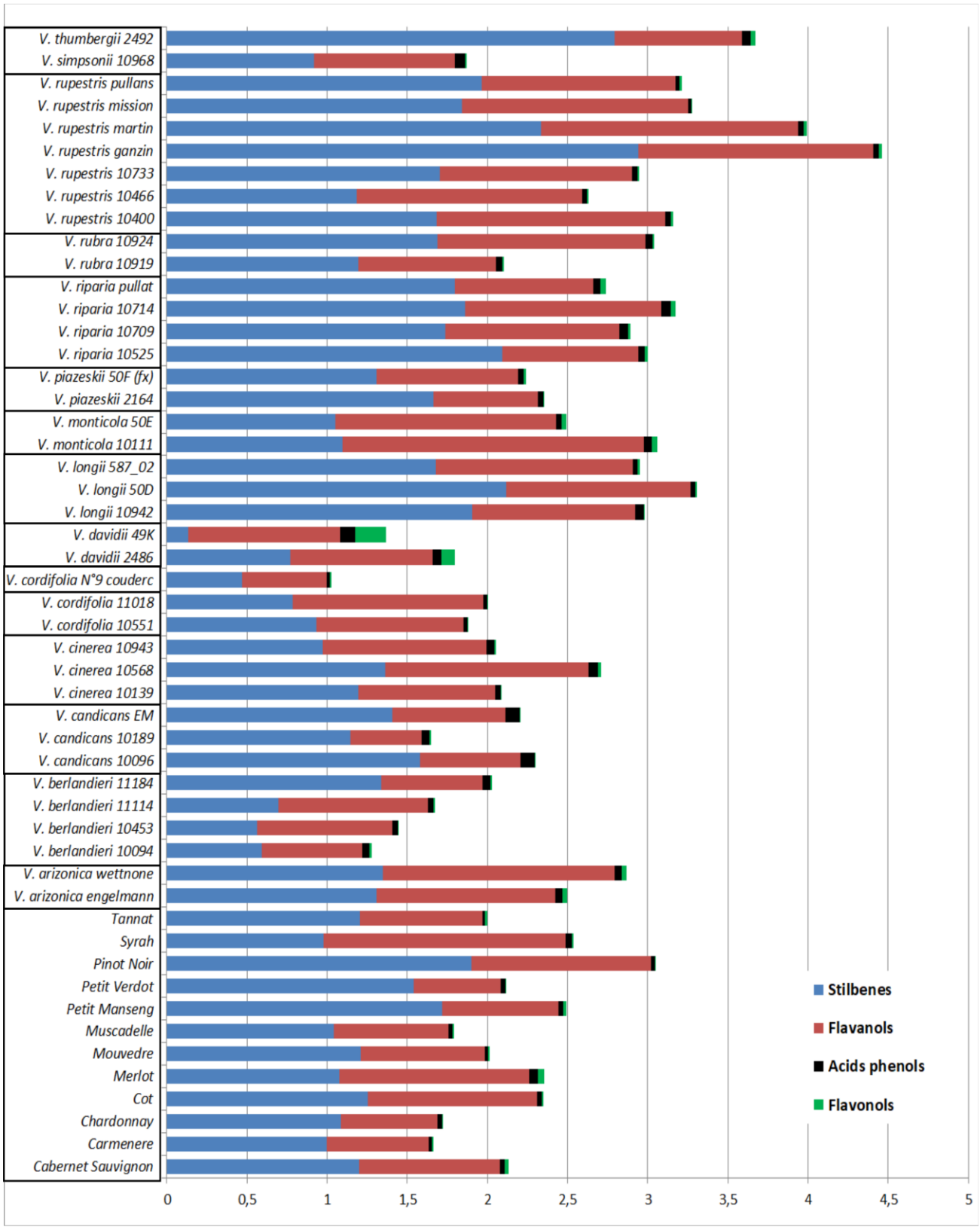








Supplementary Figure 2: Histograms for the 51 varieties studied with the 8 majors compounds for each of them.



Supplementary Figure 3: Histogram for the 51 varieties studied with the 4 polyphenol families.