

Differential Flavonoid and Other Phenolic Accumulations and Antioxidant Activities of *Nymphaea lotus* L. Populations Throughout Thailand

Duangjai Tungmunnithum ^{1,2,3,*}, Samantha Drouet ², Laurine Garros ² and Christophe Hano ^{2,3,*}

¹ Department of Pharmaceutical Botany, Faculty of Pharmacy, Mahidol University, Bangkok 10400, Thailand

² Laboratoire de Biologie des Ligneux et des Grandes Cultures, INRAE USC1328, Campus Eure et Loir, Orleans University, 28000 Chartres, France; samantha.drouet@univ-orleans.fr

³ Le Studium Institute for Advanced Studies, 1 Rue Dupanloup, 45000 Orléans, France

* Correspondence: duangjai.tun@mahidol.ac.th (D.T.); hano@univ-orleans.fr (C.H.)

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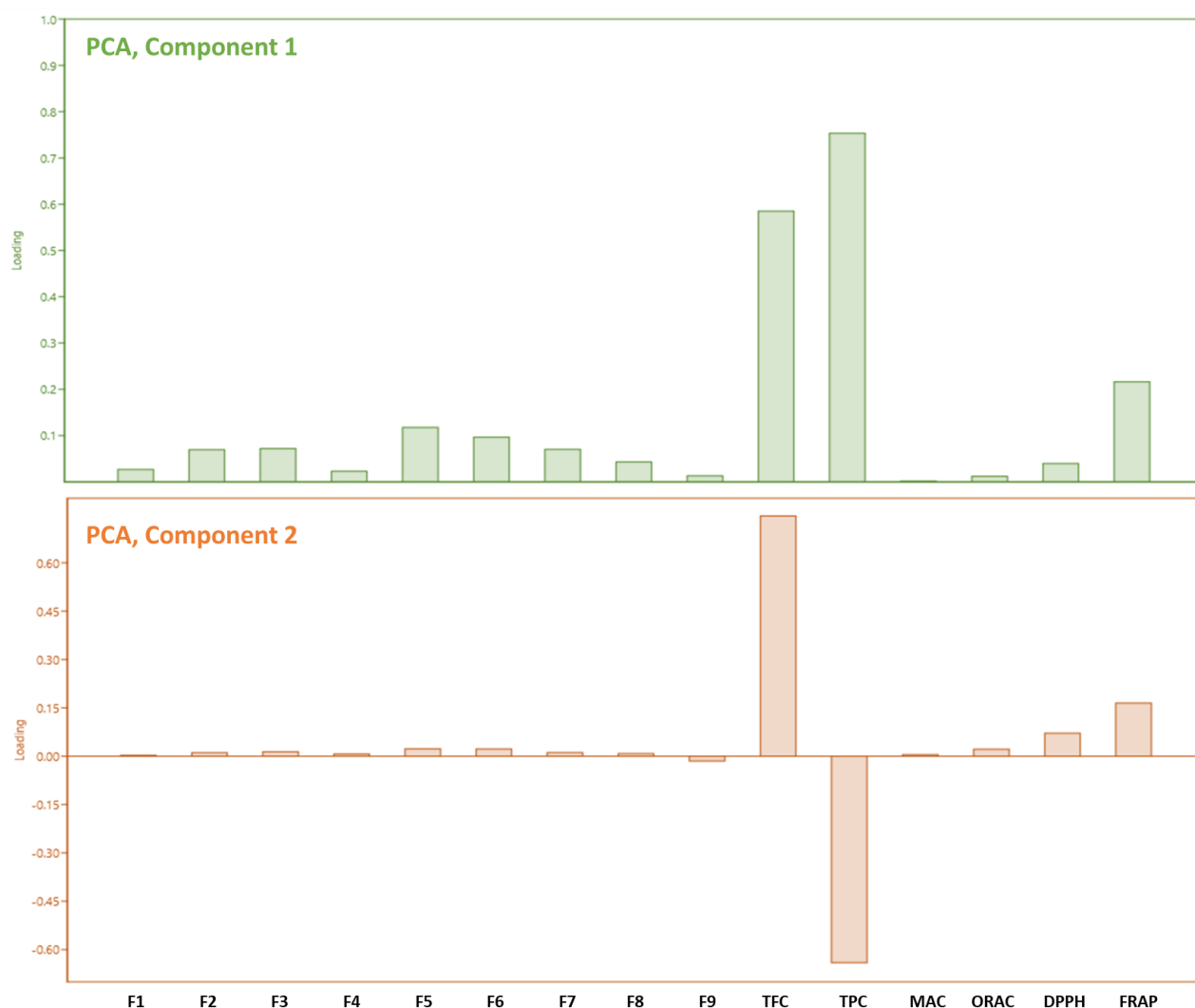


Figure S1. Loading scores of the component 1 and component 2 of the PCA (presented in Figure 5) linking the phytochemical profile and antioxidant capacity of the stamen and perianth extracts of 13 *N. lotus* populations originating from various floristic regions from Thailand. F1: Myricetin 3-O-galactoside; F2: Myricetin 3'-O-xyloside; F3: Quercetin 3-O-rhamnoside; F4: Chalcononaringenin 2''-O-galactoside; F5: Kaempferol 3-O-galactoside; F6: Quercetin 3'-O-xyloside; F7: Isorhamnetin 7-O-galactoside; F8: Isorhamnetin 7-O-xyloside; F9: Isorhamnetin 3-O-xyloside; TFC: total flavonoid content; TPC: total phenolic content; MAC: monomeric anthocyanin content; ORAC, DPPH and FRAP: *in vitro* antioxidant assays.

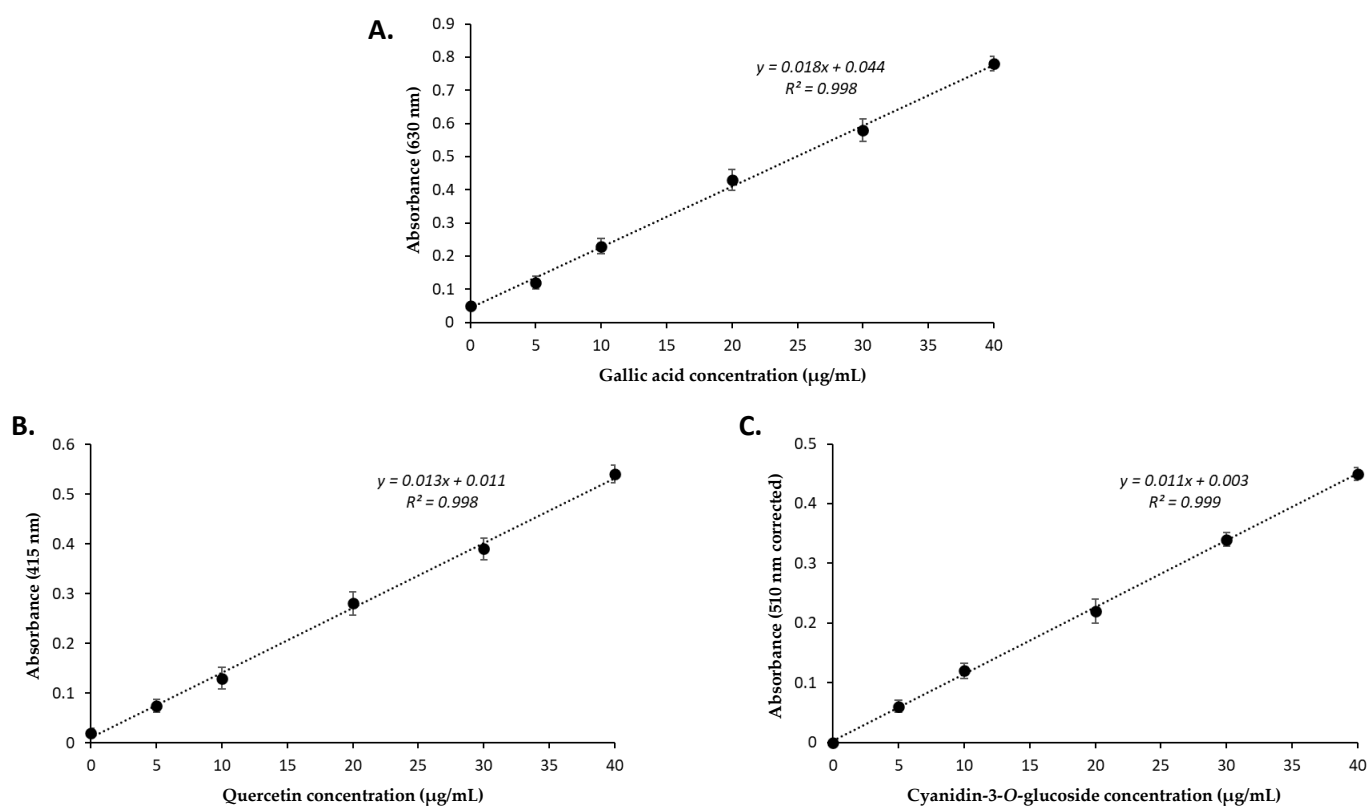


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Table S1. HPLC quantification of the main flavonoids in the stamen (A) and perianth (B) extracts of the 13 *N. lotus* populations from their natural habitats cover the whole floristic regions in Thailand.

Sample	F1		F2		F3		F4		F5		F6		F7		F8		F9	
	mean	SD	mean	SD	mean	SD	mean	SD	mean	SD	mean	SD	mean	SD	mean	SD	mean	SD
NLs#1	28.9	1.0	74.3	2.9	77.7	3.0	26.4	1.0	128.3	4.9	105.6	4.0	75.9	2.9	45.4	1.8	10.8	0.6
NLs#2	25.9	0.0	71.5	0.1	74.8	0.1	25.4	0.0	123.4	0.1	101.6	0.1	73.0	0.1	44.7	0.0	6.2	0.0
NLs#3	29.8	0.3	79.6	0.8	83.2	0.8	28.3	0.3	137.3	1.4	113.0	1.1	81.2	0.8	49.7	0.5	18.0	0.2
NLs#4	23.4	0.1	64.7	0.2	67.6	0.3	21.0	0.1	111.6	0.4	91.8	0.3	66.0	0.3	40.4	0.2	14.6	0.1
NLs#5	20.8	0.6	60.0	1.6	65.9	1.6	22.4	0.6	108.7	2.7	89.5	2.2	64.3	1.6	39.4	1.0	14.3	0.4
NLs#6	29.4	2.4	77.2	6.6	73.4	6.9	24.9	2.3	121.1	11.4	99.7	9.4	71.6	6.8	43.8	4.1	15.9	1.5
NLs#7	23.9	0.0	66.0	0.1	69.0	0.1	23.4	0.0	113.9	0.2	93.7	0.1	67.4	0.1	41.2	0.1	14.9	0.0
NLs#8	21.5	0.2	59.6	0.5	62.3	0.5	21.1	0.2	102.7	0.8	84.6	0.7	60.8	0.5	37.2	0.3	13.5	0.1
NLs#9	7.9	0.6	52.1	1.6	54.6	1.6	12.6	0.6	90.1	2.7	72.3	2.2	56.2	1.6	31.4	1.0	7.5	0.4
NLs#10	22.1	0.7	61.2	1.9	63.9	2.0	21.7	0.7	105.5	3.3	86.8	2.7	62.4	1.9	38.2	1.2	13.8	0.4
NLs#11	20.2	2.1	58.6	5.8	61.2	6.0	17.8	2.1	108.1	10.0	85.2	8.2	59.8	5.9	33.6	3.6	13.3	1.3
NLs#12	21.8	1.2	60.2	3.4	62.9	3.6	21.4	1.2	103.9	5.9	80.5	4.9	61.4	3.5	37.6	2.1	16.6	0.8
NLs#13	28.2	0.5	64.3	1.4	67.2	1.5	22.8	0.5	110.8	2.5	91.2	2.0	68.6	1.5	40.1	0.9	14.5	0.3
NLp#1	27.4	0.9	54.5	9.8	59.0	2.9	20.0	0.4	94.4	1.9	80.2	4.1	56.6	13.3	35.3	0.6	16.8	0.9
NLp#2	10.2	0.3	39.2	6.6	40.9	0.6	13.9	0.5	67.5	1.6	55.6	3.8	40.0	0.7	24.5	0.4	4.9	0.6
NLp#3	19.3	1.4	53.4	13.0	55.8	1.7	19.0	0.6	92.1	5.7	75.8	1.3	54.5	0.9	33.3	0.6	12.1	0.4
NLp#4	17.0	0.2	47.2	12.8	49.3	1.1	16.7	0.6	88.3	2.6	64.0	28.1	44.1	0.7	23.4	0.8	15.7	0.3
NLp#5	18.7	1.3	46.3	11.0	48.4	0.6	16.4	0.7	79.8	0.3	65.7	42.2	47.2	2.4	28.9	2.4	10.5	0.4
NLp#6	7.9	0.2	35.8	1.4	37.4	2.7	12.7	0.7	65.7	3.0	55.8	3.8	36.5	0.6	22.3	1.5	3.1	0.1
NLp#7	15.7	1.2	43.5	6.0	45.5	4.4	15.4	0.7	78.0	1.5	61.7	4.2	49.4	0.8	27.2	1.8	5.8	0.1
NLp#8	13.4	0.7	37.1	1.4	38.7	3.6	13.2	0.7	63.9	1.3	52.6	3.6	37.8	1.3	23.1	2.0	8.4	0.4
NLp#9	12.8	0.9	35.3	0.6	36.9	8.0	12.5	0.5	60.9	2.6	50.1	5.1	36.0	1.2	22.0	1.5	8.0	0.1
NLp#10	14.7	0.7	40.8	0.3	42.6	1.0	14.5	0.2	70.3	3.8	57.9	5.9	41.6	0.7	25.5	0.9	9.2	0.2
NLp#11	16.6	0.1	45.9	4.1	48.0	2.9	16.3	0.1	79.1	8.0	65.1	9.6	46.8	0.8	28.6	3.9	10.4	0.2
NLp#12	12.5	0.5	34.5	0.2	36.1	2.8	12.3	0.3	59.6	3.0	49.0	5.6	35.2	0.6	21.6	0.4	7.8	0.1
NLp#13	14.2	1.2	39.4	0.2	41.2	1.1	14.0	1.0	68.0	1.1	55.9	3.5	40.2	1.4	24.6	0.4	8.9	0.8

NL: *Nymphaea lotus* extract; s: stamen; p: perianth; #i indicate the population number i; F1: Myricetin 3-O-galactoside; F2: Myricetin 3'-O-xyloside; F3: Quercetin 3-O-rhamnoside; F4: Chalcononaringenin 2''-O-galactoside; F5: Kaempferol 3-O-galactoside; F6: Quercetin 3'-O-xyloside; F7: Isorhamnetin 7-O-galactoside; F8: Isorhamnetin 7-O-xyloside; F9: Isorhamnetin 3-O-xyloside. Means and standard deviations of 3 independent analysis.