

1 **Supplementary materials**

2

3 **Table S1.** Sources of samples and voucher information of taxa in the present study

Taxa	Locality	Longitude and Latitude	Altitude (m)	Voucher*
<i>Alternanthera sessilis</i> (L.) R. Br. ex DC.	Chengmai, Hainan	19°57'5.48"N; 110°5'28.71"E	25	WFVR Exp. 16010185
<i>Amaranthus blitum</i> L.	Zhangpu, Fujian	23°55'54.12"N; 117°46'6.88"E	22	WFVR Exp. 2016010084
<i>A. spinosus</i> L.-1	Zhangpu, Fujian	23°55'54.12"N; 117°46'6.88"E	22	WFVR Exp. 2016010085
<i>A. spinosus</i> L.-2	Chengmai, Hainan	19°57'5.48"N; 110°5'28.71"E	25	WFVR Exp. 16010190
<i>A. spinosus</i> L.-3	Sanya, Hainan	18°32'28.06"N; 109°44'52.27"E	8	WFVR Exp. 16010207
<i>A. viridis</i> L.-1	Zhangpu, Fujian	23°55'54.12"N; 117°46'6.88"E	22	WFVR Exp. 2016010087
<i>A. viridis</i> L.-2	Lufeng, Guangdong	22°52'48.41"N; 116°8'11.00"E	3	WFVR Exp. 2016010159
<i>A. viridis</i> L.-3	Yangjiang, Guangdong	21°38'15.90"N; 111°57'7.62"E	6	WFVR Exp. 16010239
<i>Anredera cordifolia</i> (Tenore) Steenis	Beihai, Guangxi	21°03'24.17"N; 109°05'30.70"E	13	WFVR Exp. 16010233

<i>Artemisia argyi</i> Lévl. et Van.	Zhanjiang, Guangdong	21°0'5.19"N; 110°26'37.15"E	15	WFVR Exp. 16010225
<i>Asystasia gangetica</i> (L.) T. Anderson	Chengmai, Hainan	19°57'5.48"N; 110°5'28.71"E	25	WFVR Exp. 16010183
<i>Celosia argentea</i> L.-1	Lufeng, Guangdong	22°52'48.41"N; 116°8'11.00"E	3	WFVR Exp. 2016010160
<i>C. argentea</i> L.-2	Lufeng, Guangdong	22°42'22.71"N; 115°26'11.48"E	9	WFVR Exp. 2016010164
<i>C. argentea</i> L.-3	Lingao, Hainan	19°55'51.61"N; 109°32'36.21"E	10	WFVR Exp. 16010194
<i>C. argentea</i> L.-4	Sanya, Hainan	18°19'46.65"N; 109°41'8.33"E	10	WFVR Exp. 16010205
<i>Cheilocostus speciosus</i> (J. Koenig) C. D. Specht	Lingao, Hainan	19°42'3.61"N; 109°36'43.96"E	29	WFVR Exp. 16010198
<i>Commelina benghalensis</i> L.	Dongfang, Hainan	21°1'57.21"N; 109°14'29.93"E	15	WFVR Exp. 16010202
<i>C. communis</i> L.	Chao'an, Guangdong	24°1'26.30"N; 116°53'6.83"E	139	WFVR Exp. 2016010140
<i>Eleutherococcus trifolius</i> (L.) S. Y. Hu	Nan'ao, Guangdong	23°28'59.23"N; 117°7'39.28"E	15	WFVR Exp. 2016010149
<i>Emilia sonchifolia</i> (L.) DC. ex DC.-1	Chao'an, Guangdong	24°1'26.30"N; 116°53'6.83"E	139	WFVR Exp. 2016010142
<i>E. sonchifolia</i> (L.) DC. ex DC.-2	Qionghai, Hainan	19°6'29.33"N; 110°34'10.89"E	12	WFVR Exp. 16010216

<i>E. sonchifolia</i> (L.) DC. ex DC.-3	Beihai, Guangxi	21°03'24.17"N; 109°05'30.70"E	13	WFVR Exp. 16010232
<i>Eryngium foetidum</i> L.	Wenchang, Hainan	19°37'56.23"N; 110°47'19.44"E	21	WFVR Exp. 16010219
<i>Gynura divaricata</i> (L.) DC.	Wanning, Hainan	18°39'46.94"N; 110°29'15.61"E	24	WFVR Exp. 16010213
<i>Melastoma dodecandrum</i> Lour.	Dapu, Guangdong	24°39'10.24"N; 116°45'11.28"E	676	WFVR Exp. 2016010039
<i>Pandanus tectorius</i>	Lingshui, Hainan	18°32'48.20"N; 110°6'57.34"E	13	WFVR Exp. 16010211
<i>Patrinia villosa</i> Juss.-1	Wuhua, Guangdong	23°49'9.85"N; 115°22'40.10"E	2	WFVR Exp. 2016010004
<i>P. villosa</i> Juss.-2	Letu, Fujian	24°54'20.97"N; 117°12'57.83"E	258	WFVR Exp. 2016010068
<i>Perilla frutescens</i> var. <i>purpurascens</i> (Hayata) H. W. Li	Dapu, Guangdong	24°39'10.24"N; 116°45'11.28"E	676	WFVR Exp. 2016010040
<i>Plantago asiatica</i> L.	Beihai, Guangxi	21°03'24.17"N; 109°05'30.70"E	13	WFVR Exp. 16010234
<i>Polygonum perfoliatum</i> L.	Nanjing, Fujian	24°54'20.97"N; 117°12'57.83"E	258	WFVR Exp. 2016010065
<i>Portulaca oleracea</i> L.-1	Huidong, Guangdong	22°43'28.46"N; 114°50'2.28"E	16	WFVR Exp. 2016010174
<i>P. oleracea</i> L.-2	Sanya, Hainan	18°19'46.65"N; 109°41'8.33"E	10	WFVR Exp. 16010204

<i>P. oleracea</i> L.-3	Beihai,	21°03'24.17"N;	13	WFVR Exp.
	Guangxi	109°05'30.70"E		16010230
<i>Rosa laevigata</i> Michx.	Wuhua,	23°51'20.14"N;	327	WFVR Exp.
	Guangdong	115°23'56.32"E		2016010017
<i>Smilax china</i> L.	Beihai,	21°3'26.32"N;	7	WFVR Exp.
	Guangxi	109°5'13.40"E		16010238
<i>Solanum americanum</i> Mill.-1	Dongshan,	23°39'28.19"N;	15	WFVR Exp.
	Fujian	117°25'1.25"E		2016010088
<i>S. americanum</i> Mill.-2	Lingshui,	18°32'48.20"N;	13	WFVR Exp.
	Hainan	110°6'57.34"E		16010210
<i>S. americanum</i> Mill.-3	Yangjiang,	21°38'15.90"N;	6	WFVR Exp.
	Guangdong	111°57'7.62"E		16010240
<i>S. torvum</i> Swartz-1	Nan'ao,	23°28'59.23"N;	15	WFVR Exp.
	Guangdong	117°7'39.28"E		2016010154
<i>S. torvum</i> Swartz-2	Lufeng,	22°52'48.41"N;	3	WFVR Exp.
	Guangdong	116°8'11.00"E		2016010163
<i>S. torvum</i> Swartz-3	Huidong,	22°43'28.46"N;	16	WFVR Exp.
	Guangdong	114°50'2.28"E		2016010172
<i>Talinum paniculatum</i> (Jacq.) Gaertn.-1	Chengmai,	19°57'5.48"N;	25	WFVR Exp.
	Hainan	110°5'28.71"E		16010186
<i>T. paniculatum</i> (Jacq.) Gaertn.-2	Beihai,	21°03'24.17"N;	13	WFVR Exp.
	Guangxi	109°05'30.70"E		16010231

4 \*Voucher specimens store in IBSC (South China Botanical Garden). WFVR Exp. is an  
5 abbreviation of “Wild Fruit & Vegetable Resources Expedition”.

6 **Table S2.** Proximate composition of the edible parts (100 g, fresh weight) and Average Nutritive Value (ANV) of the studied species

Taxa	Moisture (%)	Proteins (g)	VC (mg)	Carotene (mg)	Fiber (g)	Fe (mg)	Ca (mg)	ANV
<i>Alternanthera sessilis</i>	82.00 <sup>1</sup>	3.27	5.81	14.86	9.42	17.23	440.74	38.10
<i>Amaranthus blitum</i>	80.00 <sup>2</sup>	5.82	11.30	31.93	10.61	10.55	305.48	52.32
<i>A. spinosus</i>	82.00 <sup>2</sup>	3.51	2.52	56.32	8.91	9.25	483.23	75.45
<i>A. viridis</i>	80.00 <sup>2</sup>	4.89	11.15	37.13	10.41	6.63	557.27	57.69
<i>Anredera cordifolia</i>	93.60 <sup>3</sup>	0.79	4.20	36.32	3.00	1.17	107.88	41.25
<i>Artemisia argyi</i>	84.88 <sup>4</sup>	3.32	1.86	48.99	7.23	3.24	243.23	60.99
<i>Asystasia gangetica</i>	85.00 <sup>5</sup>	3.18	4.41	74.10	7.19	6.54	363.13	88.93
<i>Celosia argentea</i>	87.60 <sup>6</sup>	2.49	3.69	28.72	5.81	7.08	323.71	41.90
<i>Commelina benghalensis</i>	89.10 <sup>6</sup>	1.84	7.90	36.56	3.70	6.44	175.74	45.80
<i>C. communis</i>	91.80 <sup>7</sup>	1.03	1.42	6.61	5.28	8.62	73.13	17.18
<i>Cheilocostus speciosus</i>	91.40 <sup>8</sup>	0.91	3.86	ND	3.29	1.31	179.57	6.02
<i>Eleutherococcus trifoliatus</i>	68.80 <sup>9</sup>	6.45	25.86	41.81	17.77	3.62	111.36	64.43

<i>Emilia sonchifolia</i>	92.49 <sup>4</sup>	1.56	1.90	27.16	4.32	3.55	93.59	34.55
<i>Eryngium foetidum</i>	86.57 <sup>10</sup>	1.89	11.55	26.34	5.58	7.16	47.83	36.64
<i>Gynura divaricata</i>	63.61 <sup>11</sup>	6.99	4.00	114.08	21.54	4.95	491.33	144.51
<i>Melastoma dodecandrum</i>	87.18 <sup>12</sup>	1.01	2.70	0.08	8.63	18.09	53.95	18.56
<i>Pandanus tectorius</i>	80.00 <sup>13</sup>	1.75	0.44	ND	7.05	2.35	1099.89	19.59
<i>Patrinia villosa</i>	81.90 <sup>14</sup>	2.40	11.17	69.69	10.94	3.13	81.18	83.76
<i>Perilla frutescens</i> var. <i>purpurascens</i>	82.34 <sup>15</sup>	2.32	4.15	40.42	12.65	24.73	151.75	67.53
<i>Plantago asiatica</i>	84.70 <sup>16</sup>	2.70	9.36	35.80	6.98	6.30	600.49	52.72
<i>Polygonum perfoliatum</i>	85.23 <sup>17</sup>	1.80	1.63	10.85	10.84	1.47	603.23	28.86
<i>Portulaca oleracea</i>	93.00 <sup>5</sup>	1.16	2.50	14.98	3.07	8.09	122.49	23.61
<i>Rosa laevigata</i>	46.28 <sup>18</sup>	3.86	68.32	3.35	31.87	1.78	236.07	40.95
<i>Solanum americanum</i>	70.48 <sup>19</sup>	7.90	13.51	166.32	14.47	11.65	513.53	193.67
<i>S. torvum</i>	79.89 <sup>20</sup>	3.31	18.55	2.71	11.13	1.38	58.10	16.25
<i>Talinum paniculatum</i>	91.50 <sup>21</sup>	1.78	2.76	23.86	3.33	3.51	82.71	30.20

7 ND: Not Detected.

8

9 **References**

10

- 11 1. Sheela K, Nath KG, Vijayalakshmi D, Yankanchi GM, Patil RB. Proximate composition of underutilized green leafy vegetables in Southern  
12 Karnataka. *J Hum Ecol.* 2004;15(3):227-229.
- 13 2. Jimenez-Aguilar DM, Grusak MA. Minerals, vitamin C, phenolics, flavonoids and antioxidant activity of *Amaranthus* leafy vegetables. *J Food*  
14 *Compos Anal.* 2017;58:33-39.
- 15 3. Liang Y, Chen JL, Wu SY, Chen YZ. The test of *Anredera cordifolia* on nutrient quality and acute toxicity. *Clin Med Eng.* 2010;1:57-58.
- 16 4. Huang LH, Li YY. Analysis on contents nutrition in *Artemisia argyi*. *Food Res Dev.* 2014;35(20):124-127.
- 17 5. Odhav B, Beekrum S, Akula U, Baijnath H. Preliminary assessment of nutritional value of traditional leafy vegetables in KwaZulu-Natal, South  
18 Africa. *J Food Compos Anal.* 2007;20(5):430-435.
- 19 6. Gupta S, Lakshmi AJ, Manjunath M, Prakash J. Analysis of nutrient and antinutrient content of underutilized green leafy vegetables. *LWT-Food*  
20 *Sci Technol.* 2005;38(4):339-345.

- 21 7. Ogle BM, Johansson M, Tuyet HT, Johannesson L. Evaluation of the significance of dietary folate from wild vegetables in Vietnam. *Asia Pac*  
22 *J Clin Nutr.* 2001;10(3):216-221.
- 23 8. Zhao TR, Fan J, Li YS, Qin YY. Nutritional components of wild *Costus speciosus* (Koenig) Smith of Yunnan Province. *J Southwest Agric Univ*  
24 *(Nat Sci).* 2004;26(4):456-458.
- 25 9. Li WF, Yan L, Xiang N. Chemical composition and quality evaluation of leaves of *Acanthopanax trifoliatum* (L.) Merr. *Nat Prod Res Dev.*  
26 2013;25:1077-1080.
- 27 10. Singh S, Singh D, Salim K, Srivastava A, Singh L, Srivastava R. Estimation of proximate composition, micronutrients and phytochemical  
28 compounds in traditional vegetables from Andaman and Nicobar Islands. *Int J Food Sci Nutr.* 2011;62(7):765-773.
- 29 11. Jaiboon V, Boonyanuphap J, Suwansri S, Ratanatraiwong P, Hansawasdi C. Alpha amylase inhibition and roasting time of local vegetables and  
30 herbs prepared for diabetes risk reduction chili paste. *Asian J Food Ag-Ind.* 2010;3(1):1-12.
- 31 12. Shi D, Liu J, Chen B. An analysis of nutrient constituents of *Melastoma dodecandrum* Lour fruit. *J Fujian Normal Univ (Nat Sci).*  
32 2000;16(3):69-71.
- 33 13. Adkar PP, Bhaskar V. *Pandanus odoratissimus* (Kewda): A review on ethnopharmacology, phytochemistry, and nutritional aspects [published  
34 online December 22, 2014]. *Adv Pharmacol Sci.* doi: 10.1155/2014/120895



- 35 14. Zhu J, Li Z, Chen J. Determination of volatile compounds and nutrients analysis of wild *Patrinia villosa*. *Trans Chinese Soc Agric Eng.*  
36 2002;18(5): 193-197.
- 37 15. Zhang ZJ. Analysis of the main nutrition ingredients of edible leaf red *Perilla* in different growth stages. *Food Nut China.* 2014;20(4):69-72.
- 38 16. Zhao YY, Zhang KW, Dai YQ, Guo XX, Yin JH. Analysis of nutrient components and determination of nitrite content in four kinds of potherb  
39 in Yongzhou. *Chinese Agric Sci Bull.* 2008;24(10):115-117.
- 40 17. Narzary H, Swargiary A, Basumatary S. Proximate and vitamin C analysis of wild edible plants consumed by Bodos of Assam, India. *J Mol*  
41 *Pathophysiol.* 2015;4(4):128-133.
- 42 18. He YH. Progress in researches of biological functions of *Rosa Laevigata* Michx and health food made from it. *The Bev Ind.* 2001;4(3):33-35.
- 43 19. Ding LJ, Chen X, Ma QQ. Analysis on nutritional compounds and tannin in wild vegetables of Chaozhou. *Academic Period Farm Prod Proc.*  
44 2005;12:71-72.
- 45 20. Andarwulan N, Kurniasih D, Apriady RA, Rahmat H, Roto AV, Bolling BW. Polyphenols, carotenoids, and ascorbic acid in underutilized  
46 medicinal vegetables. *J Funct Foods.* 2012;4(1):339-347.
- 47 21. Yang X, Guo JX. Assessment study on nutritive compositions and value of main wild vegetables in south China. *Food Sci.* 2002;23(11):121-  
48 125.
- 49