

Electronic Supplementary Information (ESI)

Evaluation of Nutrient Composition and Antioxidant Property of Six Wild Edible Fruits of Tripura, North-East India

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Figure S1: Indian Communities Map

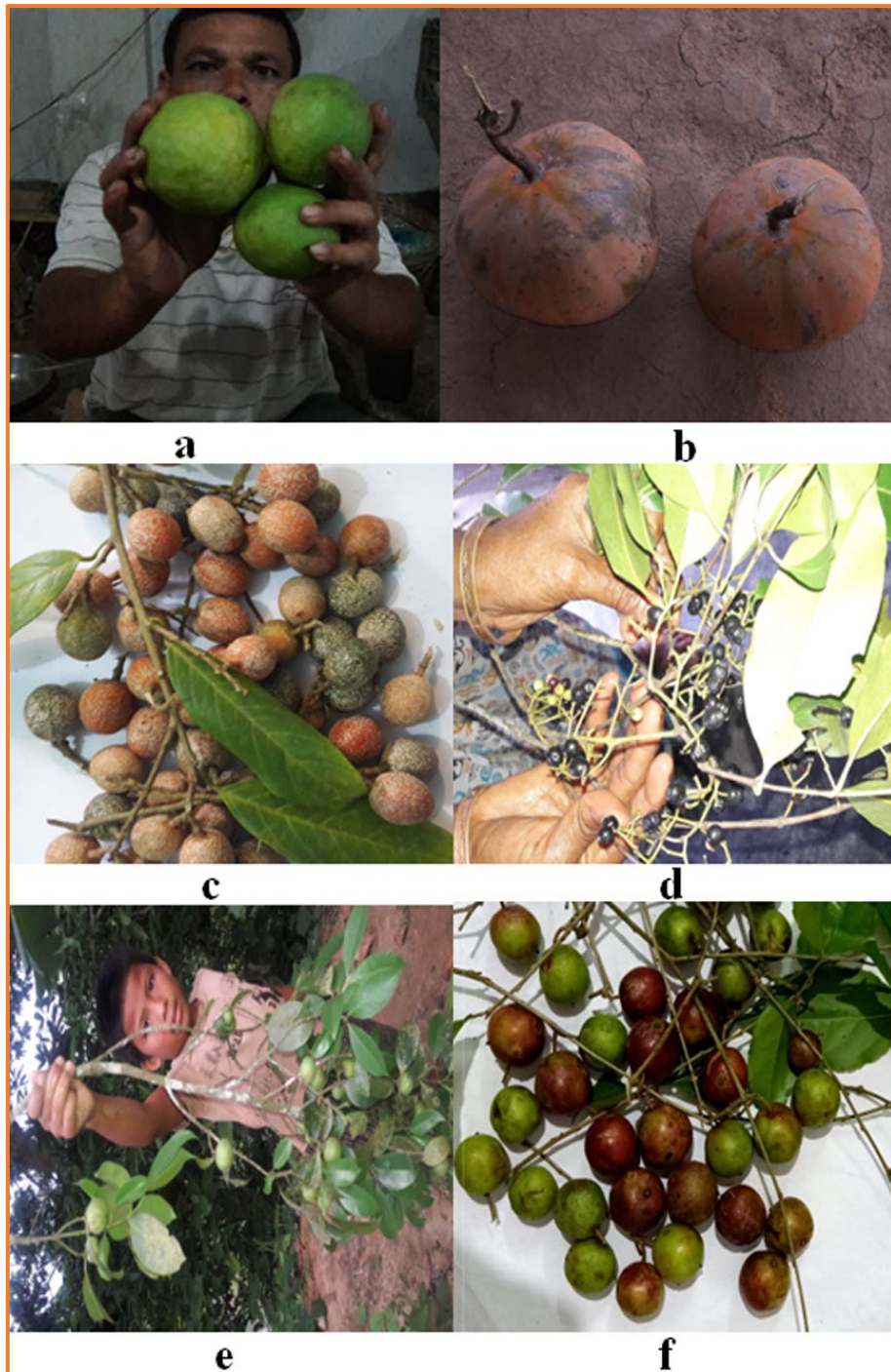


Figure S2. Photographs of the wild edible fruits: (a) wild orange (*Citrus macroptera*), (b) Chinese lard (*Hodgsoniamacrocarpa*Cogn.), (c) madhabilata (*Stixissuaveolens*Roxb. Pierre), (d) wild small black jamun (*Syzygiummassamicum*), (e) gamboge (*Garcinia gummi-gutta* (L.) Robs), and (f) Indian coffee plum (*Flacourtiajangomas*Lour. Raeusch).

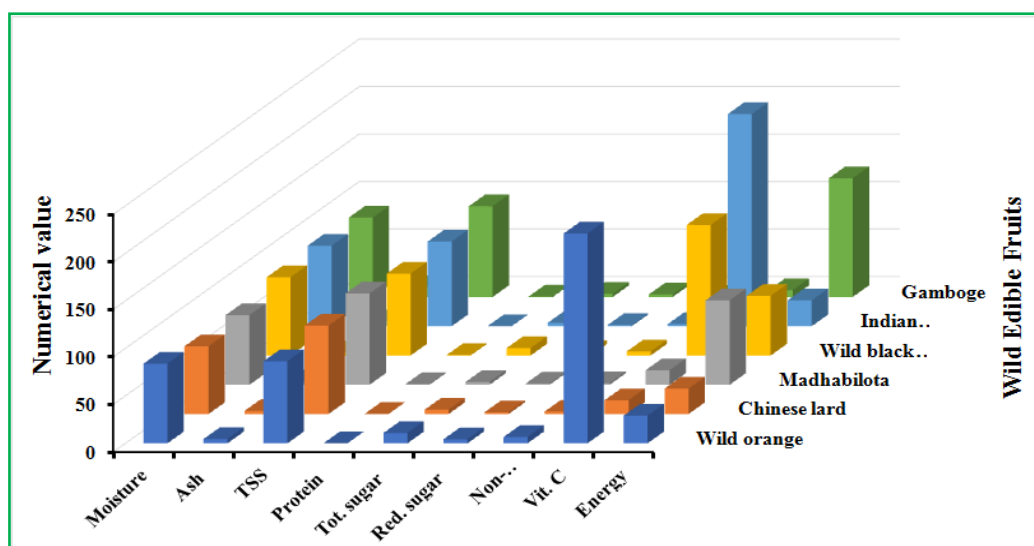


Figure S3. Macronutrient compositions of the six wild edible fruits of Tripura. Units of the nutrients as in Table 1.

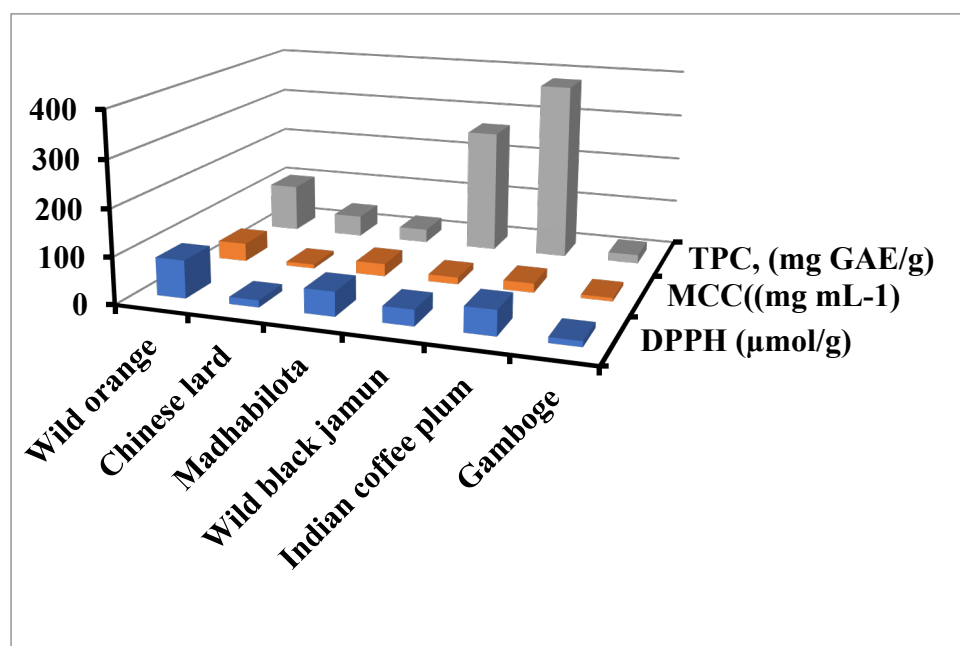


Figure S4. Antioxidant activity of methanol extract of the fruits.

Table S1. List of the six wild edible fruits of Tripura state with identification and authentication [15]

Sl. No.	Botanical name *(IPNI)	Family	Local Name	Time of availability	Taste	Uses: folk medicine	Voucher specimen number	Identified Institute
1	Citrus macroptera Montrouz.	Rutaceae	B-Sathkora K-Chatukora R-saataokra (Wild orange)	Sept-Nov	Sour	Fruits are eaten raw. Fruits peel use for meat tenderization, also , gastritis, kidney stone treatment	SB-34, 10.10.2015, Tulasikhar, Khowai	Tripura University and TERI, Guwahati
2	<i>Hodgsonia-macrocarpa</i> (Blume) Cogn.	Cucurbitaceae	B-Bon kumra K-Thaibai R-Thaibai (Chinese Lard Plant)	Apr-July	Bitter in taste and oily	Fruits kernel taken as alternative use of oil in curry and also taken by roasted the kernel and extracted oil from kernel used as folk medicine , burned leaves are used in wound healing, Constipation	SB-26, 05.07.2016, Manu, Dhalai	Tripura University and TERI, Guwahati
3	<i>Stixissuaveolens</i> (Roxb.) Baill.	Capparaceae	B- Madhabi K- Majeelata R- Mooni	May-July	Taste like ripen date palm	Fruits are used for consumption, also use folk	SB- 22, 4.06.2016,	Tripura University and

						medicine for heart disease, asthma	Tablabari, Khowai	TERI, Guwahati
4	<i>Syzygium assamicum</i> (Biswas & Purkay.) Raizada	Myrtaceae	B-Khudikalajam K-Jamuk R-Jamuk (Wild small black jamun)	May-Sept	Slightly bitter in taste and sweet	Seeds use for diabetes	SB-64 23.8.2016 Ajagartila, Khowai	Tripura University and TERI, Guwahati
5	<i>Flacourtiajanglemas</i> (Lour.)Raeusch	Salicaceae	B-Tipafol / Paniol K- Tekroi R- Tekrui (Indian coffee Plum)	July - Nov	Mild sour and tangy taste	Consumed as raw and cooked, salt-dried, jam, marmalade, leaves and fruits used against diarrhoea, dried leaves effectively for bronchitis.	SB-28, 23.06.2015, Tablabari, Khowai	Tripura University and TERI, Guwahati
6	<i>Garcinia gummituta</i> L. Roxb.	Clusiaceae	B-Kowagota K-Kouk R-Akouk (Gambooge)	May-July	Taste in sour and sweet	Consumed as raw fruits as juice, prepared pickles, use folk medicine for treatment for Diarrhoea	SB-46 12.07.2016, Tablabari, Khowai	Tripura University and TERI, Guwahati

Table S2. Principal components (PC) and component loadings extracted from different parameters analysed from six fruits were used to interpret the PC

PCs	PC1	PC2	PC3	PC4	PC5
Eigen value	9.069	5.288	4.879	3.517	3.246
% Variance	34.882	20.339	18.767	13.528	12.485
Cumulative %	34.882	55.221	73.987	87.515	100.000
<i>Factor loading/eigen vector</i>					
Moisture	0.404	0.487	0.729	0.228	-0.129
Ash	-0.276	0.948	0.113	0.014	0.108
TSS	-0.790	0.308	-0.519	-0.101	-0.030
Prot	-0.309	0.283	-0.464	-0.014	-0.780
TS	0.920	-0.160	0.023	0.310	0.179
RS	0.955	0.210	-0.048	0.155	0.129
NRS	0.803	-0.357	0.061	0.420	0.217
VTC	0.442	-0.256	0.749	0.420	0.041
Eng	-0.214	0.752	-0.379	-0.094	-0.485
Na	-0.612	-0.729	0.016	0.266	0.149
K	-0.824	0.062	-0.031	0.152	0.541
Mg	0.099	-0.297	0.692	0.516	0.396
Zn	0.063	0.948	-0.226	-0.051	-0.208
Cu	-0.145	0.237	-0.191	0.939	-0.068
Ni	0.025	-0.192	-0.307	-0.116	0.924
Co	-0.019	-0.067	-0.899	0.340	0.269

Mn	-0.129	0.963	-0.116	-0.185	0.091
Cr	-0.470	-0.300	0.808	0.123	-0.147
Cd	0.963	-0.112	0.040	0.215	-0.108
Hg	0.346	-0.040	0.100	0.935	-0.063
Pb	0.212	-0.633	-0.731	0.131	-0.047
DPPH	0.264	-0.335	0.229	0.872	-0.066
IC50	-0.124	-0.182	-0.397	-0.427	0.782
MCC	0.277	-0.282	0.005	0.918	-0.033
TPC	0.150	-0.330	0.885	-0.110	-0.271
TFC	0.213	0.254	0.513	0.250	0.157

Where TSS: Total Soluble Solid, Prot: Protein, TS: Total Sugar, RS: Reducing Sugar, NRS: Non-Reducing Sugar, VTC: Vitamin C, Eng: Energy value, Na: Sodium, K: Potassium, Mg: Magnesium, Zn: Zinc, Cu: Cupper, Ni: Nickel, Co: Cobalt, Mn: Manganese, Cr: Chromium, Cd: Cadmium, Hg: Mercury, Pb: Lead, DPPH: 2,2diphenyl-1-picrylhydrazyl, IC50: Half- maximal inhibitory concentration, MCC: Metal Chelating Capacity, TPC: Total Phenolic Content, TFC: Total Flavonoid Content. Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.