

Essential Oil from Six Aromatic Plants of Langtang National Park: Insights on their Chemical Constituents via GCMS Analysis

Samjhana Pradhan ^{1*}, Hem Raj Paudel ², Romi Maharjan ¹ and Kavita Sharma³

¹ Department of Plant Resources, Thapathali, Kathmandu, Nepal.

² National Herbarium and Plant Laboratories (KATH), Godavari, Lalitpur, Nepal.

³Department of Biomedical and Pharmaceutical Sciences, Idaho State University, Pocatello, ID 83209, USA.

***Email: samjhanapradhan313@gmail.com**

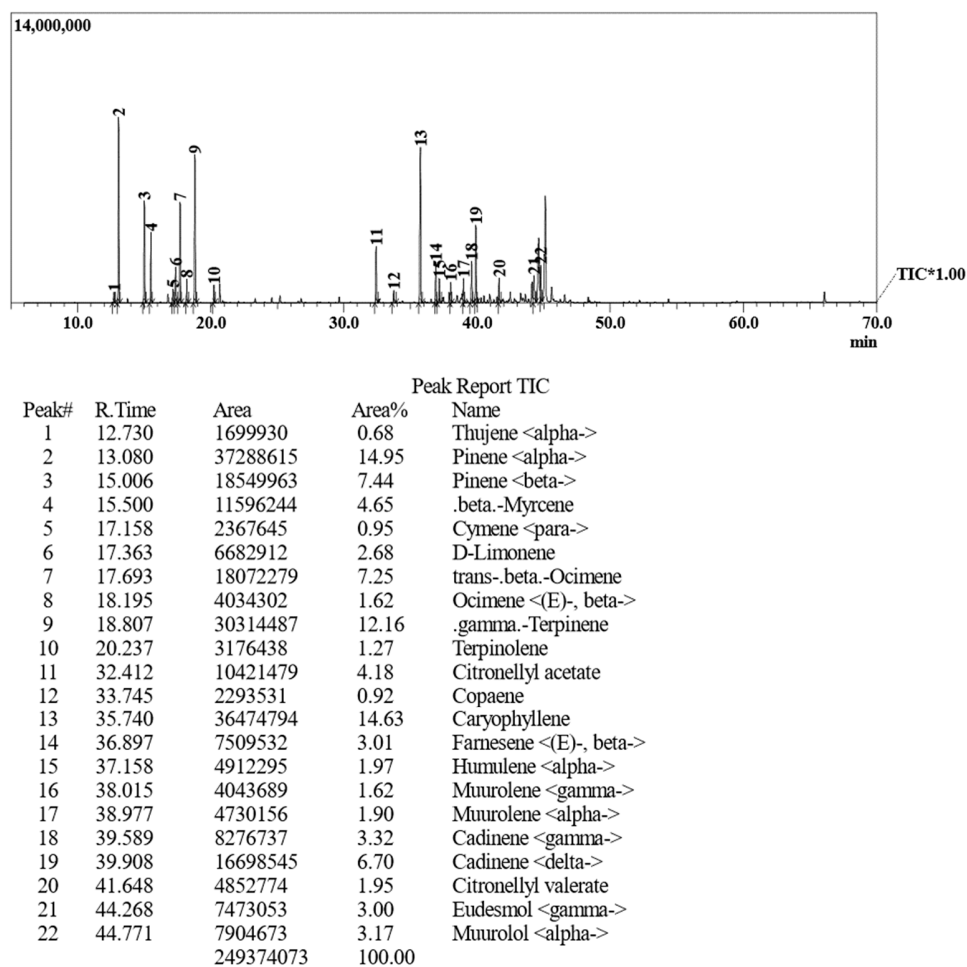


Figure S1. Total ion chromatogram (TIC) and peak table of essential oil from *Rhododendron anthopogon* (AN)

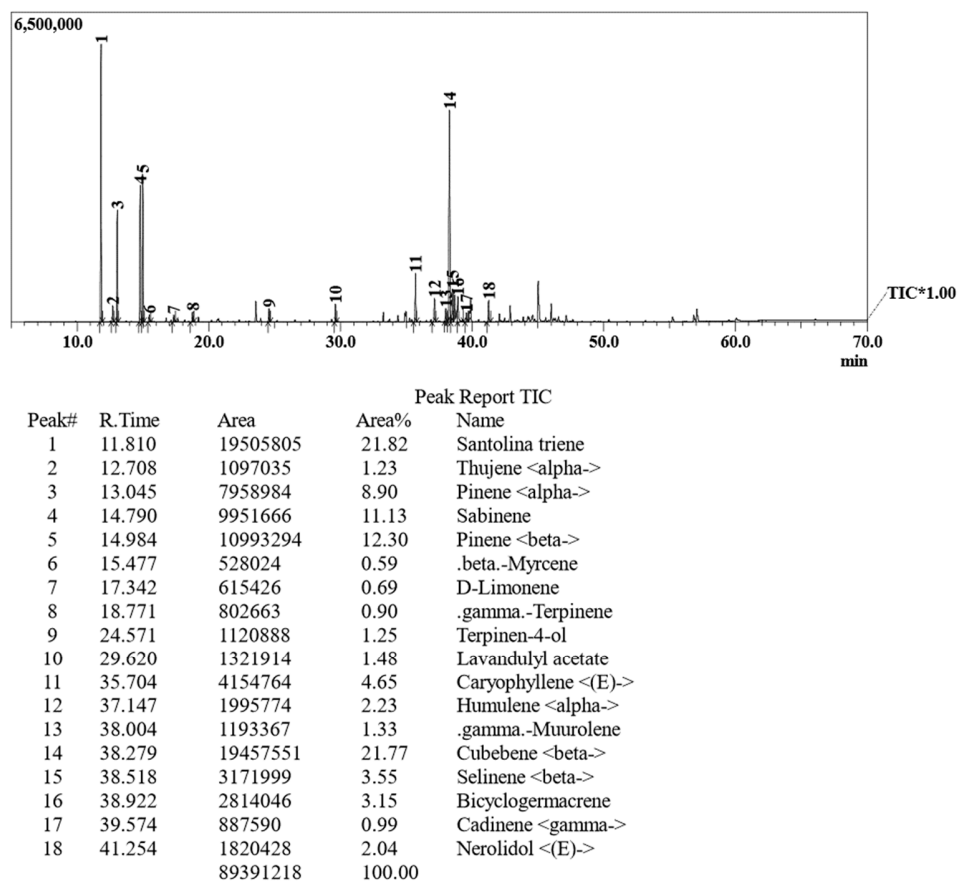
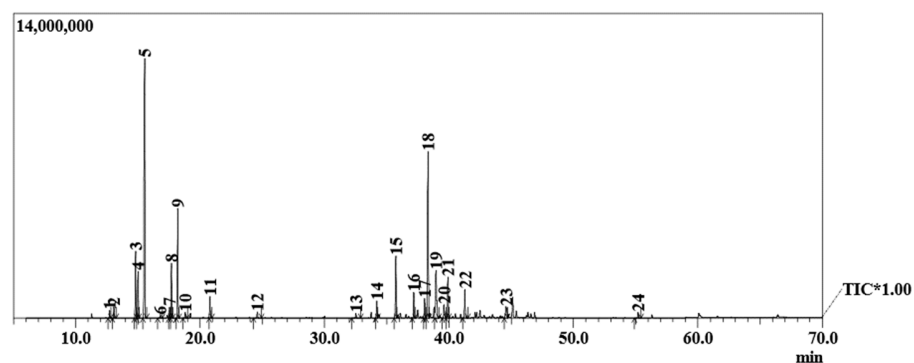


Figure S2. Total ion chromatogram (TIC) and peak table of essential oil from *Artemisia dubia* (AR)



Peak#	R.Time	Area	Area%	Name
1	12.730	1155751	0.54	Thujene <alpha->
2	13.068	1729987	0.81	Pinene <alpha->
3	14.814	10740517	5.02	Sabinene
4	15.008	7624822	3.56	Pinene <beta->
5	15.542	57884456	27.04	.beta.-Myrcene
6	16.789	423127	0.20	Terpinene <alpha->
7	17.546	1838632	0.86	Eucalyptol
8	17.692	8671058	4.05	trans-.beta.-Ocimene
9	18.205	19158122	8.95	Ocimene <(E)-, beta->
10	18.797	993472	0.46	.gamma.-Terpinene
11	20.786	3710086	1.73	Perillene
12	24.596	1250929	0.58	Terpinen-4-ol
13	32.513	912178	0.43	Cubebene <alpha->
14	34.191	3026832	1.41	(-).beta.-Bourbonene
15	35.727	12403131	5.79	Caryophyllene
16	37.165	4902211	2.29	Humulene <alpha->
17	38.035	3978056	1.86	.gamma.-Murolene
18	38.315	39094938	18.26	Cubebene <beta->
19	38.947	13216201	6.17	Bicyclogermacrene
20	39.594	3324643	1.55	Cadinene <gamma->
21	39.908	7740509	3.62	Cadinene <delta->
22	41.274	5179489	2.42	Nerolidol <(E)->
23	44.573	4160243	1.94	.tau.-Cadinol
24	55.185	973801	0.45	Camphorene <m->
		214093191	100.00	

Figure S3. Total ion chromatogram (TIC) and peak table of essential oil from *Boenninghausenia albiflora* (BE)

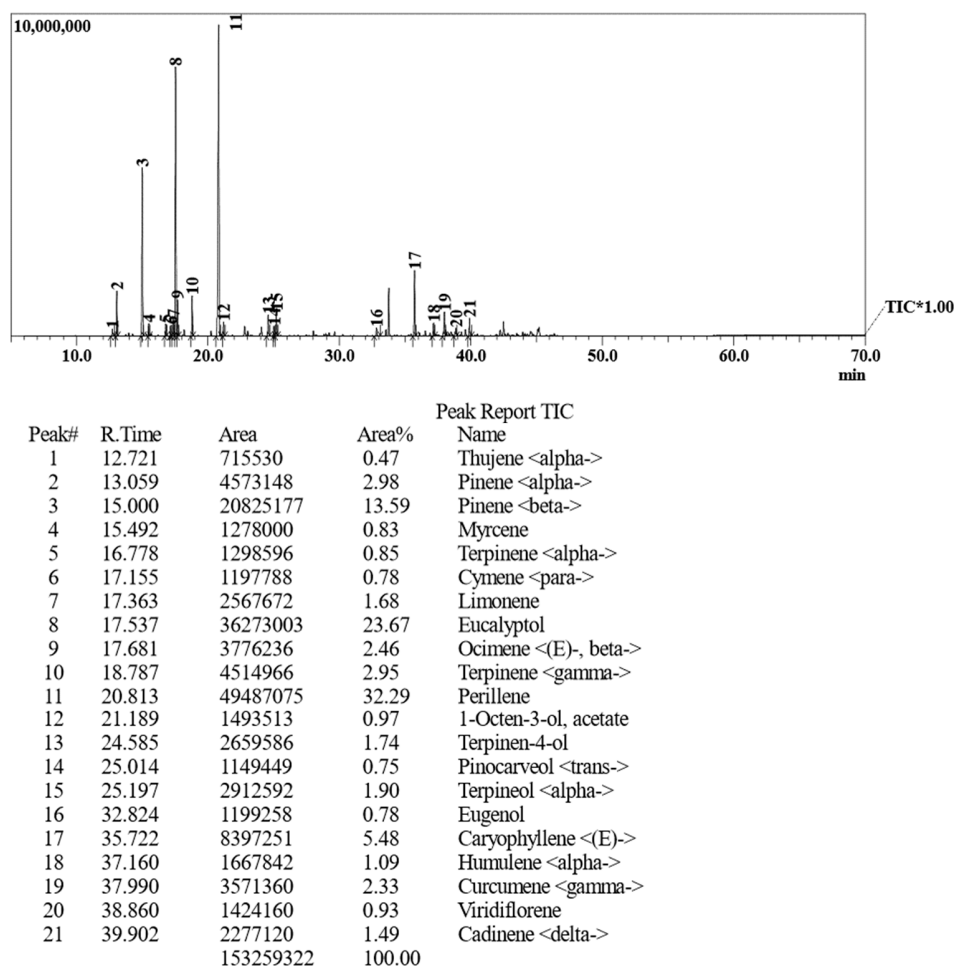
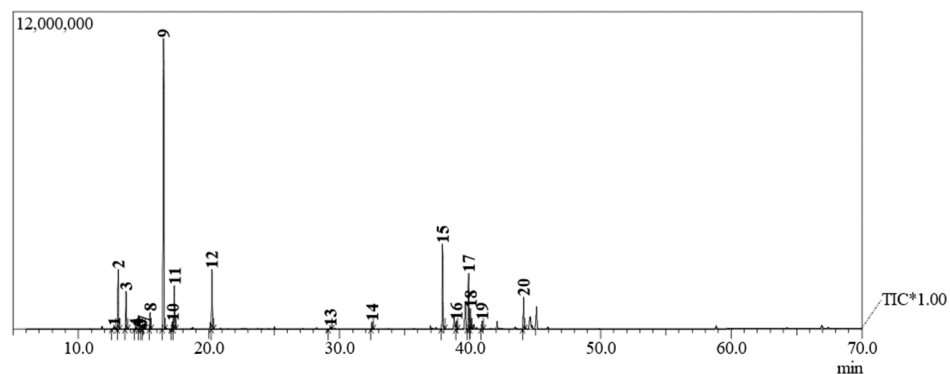


Figure S4. Total ion chromatogram (TIC) and peak table of essential oil from *Elsholtzia fruticosa* (EL)



Peak Report TIC				
Peak#	R.Time	Area	Area%	Name
1	12.716	361852	0.31	Thujene <alpha->
2	13.054	7679023	6.51	Pinene <alpha->
3	13.648	4966514	4.21	Fenchene <alpha->
4	14.378	268375	0.23	Menthatriene <1,3,8-para->
5	14.682	162988	0.14	Cymene <meta->
6	14.796	48940	0.04	Sabinene
7	14.991	618128	0.52	Pinene <beta->
8	15.486	2115776	1.79	Myrcene
9	16.524	51549565	43.70	Carene <delta-3->
10	17.197	1034771	0.88	Sylvestrene
11	17.350	6573995	5.57	Limonene
12	20.225	8508591	7.21	Terpinolene
13	29.290	351106	0.30	Pregeijerene B
14	32.491	988014	0.84	Cubebene <alpha->
15	37.893	13404141	11.36	Cadina-1(6),4-diene
16	38.960	1287693	1.09	Muurolene <alpha->
17	39.888	8888373	7.53	Cadinene <delta->
18	40.025	3057497	2.59	Zonarene
19	40.921	1186551	1.01	Elemol <alpha->
20	44.104	4920144	4.17	Epicubenol
		117972037	100.00	

Figure S5. Total ion chromatogram (TIC) and peak table of essential oil from leaves of *Juniperus recurva* (JL)

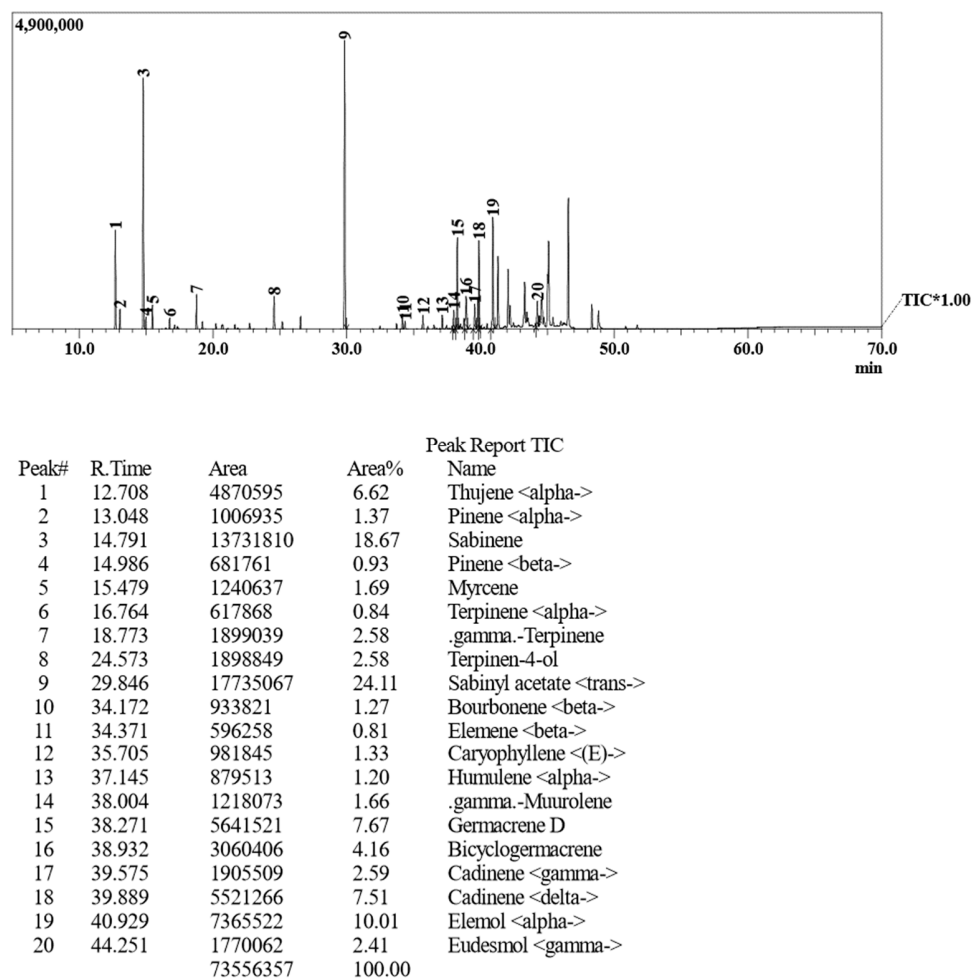


Figure S6. Total ion chromatogram (TIC) and peak table of essential oil from *Rhododendron setosum* (SE)