

Supplementary Table S1. Chemical composition of *W. trilobata* leaves, detected using GC-MS.

No	No. of peak	Ret. Time	Name	Formula	Area (%)	Compound Group
1	78	24.15	Squalene	C ₃₀ H ₅₀	20.76	Terpenoid (Triterpenoid)
2	63	21.47	5a-Pregnan-20-one, 12fl-hydroxy-, acetate	C ₂₃ H ₃₆ O ₃	7.57	Terpenoid (Steroid)
3	99	28.95	Stigmasterol	C ₂₉ H ₄₈ O	4.64	Terpenoid (Steroid)
4	19	13.06	(-)-Spathulenol	C ₁₅ H ₂₄ O	4.46	Terpenoid (Sesquiterpene alcohol)
5	85	25.5	1H-Cyclopropa[3,4]benz[1,2-e]azulene-5,7b,9,9a-tetrol, 1a,1b,4,4a,5,7a,8,9-octahydro-3-(hydroxymethyl)-1,1,6,8-tetramethyl-, 5,9,9a-triacetate, [1aR-(1aa,1bfl,4afl,5fl,7aa,7ba,8a,9fl,9aa)]-	C ₂₆ H ₃₆ O ₈	4.39	Terpenoid (Triterpenoid)
6	51	18.59	Phytol (3,7,11,15-Tetramethyl-2-hexadecen-1-ol)	C ₂₀ H ₄₀ O	3.37	Terpenoid (Diterpenoid alcohols)
7	82	25.05	6fl-Hydroxyfluoxymesterone	C ₂₀ H ₂₉ FO ₄	3.35	Terpenoid (Steroid)
8	66	21.96	1-Heptatriacotanol	C ₃₇ H ₇₆ O	3.16	Long chain aliphatic alcohols/ Fatty alcohols
9	94	27.17	4H-Cyclopropa[5',6']benz[1',2':7,8]azuleno[5,6-b]oxiren-4-one, 8-(acetyloxy)-1,1a,1b,1c,2a,3,3a,6a,6b,7,8,8a-dodecahydro-3a,6b,8a-trihydroxy-2a-(hydroxymethyl)-1,1,5,7-tetramethyl-, (1aa,1bfl,1cfl,2afl,3afl,6aa,6ba,7a,8fl,8aa)-(1R,4aR,4bS,7S,10aR)-1,4a,7-Trimethyl-7-vinyl-1,2,3,4,4a,4b,5,6,7,8,10,10a-dodecahydrophenanthrene-1-carbaldehyde	C ₂₂ H ₃₀ O ₈	2.72	Terpenoid (Diterpenoid)
10	58	19.99	1-Heptatriacotanol	C ₂₀ H ₃₀ O	2.57	Terpenoid (Diterpenoid)
11	65	21.88	1-Heptatriacotanol	C ₃₇ H ₇₆ O	2.29	Long chain aliphatic alcohols/ Fatty alcohols
12	104	30.4	Astaxanthin	C ₄₀ H ₅₂ O ₄	2.13	Terpenoid (Carotenoid)
13	80	24.67	Ethyl iso-allocholate	C ₂₆ H ₄₄ O ₅	2.03	Terpenoid (Steroid)
14	14	12.02	(3S,3aR,3bR,4S,7R,7aR)-4-Isopropyl-3,7-dimethyloctahydro-1H-cyclopenta[1,3]cyclopropa[1,2]benzen-3-ol	C ₁₅ H ₂₆ O	2.03	Terpenoid (Sesquiterpene alcohol)
15	87	25.8	Ethyl iso-allocholate	C ₂₆ H ₄₄ O ₅	2	Terpenoid (Steroid)
16	38	15.8	Phytol (3,7,11,15-Tetramethyl-2-hexadecen-1-ol)	C ₂₀ H ₄₀ O	1.53	Terpenoid (Diterpenoid alcohols)
17	47	17.61	Androst-2,16-diene	C ₁₉ H ₂₈	1.44	Terpenoid (Steroid)
18	67	22.07	Ethyl iso-allocholate	C ₂₆ H ₄₄ O ₅	1.39	Terpenoid (Steroid)
19	13	11.82	Germacrene D	C ₁₅ H ₂₄	1.14	Terpenoid (Hydrocarbon Sesquiterpenes)
20	16	12.3	(3S,3aR,3bR,4S,7R,7aR)-4-Isopropyl-3,7-dimethyloctahydro-1H-cyclopenta[1,3]cyclopropa[1,2]benzen-3-ol	C ₁₅ H ₂₆ O	1.12	Terpenoid (Sesquiterpene alcohol)
21	22	13.53	Junenol	C ₁₅ H ₂₆ O	1.06	Terpenoid (Sesquiterpene alcohol)
22	83	25.16	Ethyl iso-allocholate	C ₂₆ H ₄₄ O ₅	1.01	Terpenoid (Steroid)
23	91	26.56	Spirost-8-en-11-one, 3-hydroxy-, (3fl,5a,14fl,20fl,22fl,25R)-	C ₂₇ H ₄₀ O ₄	0.96	Terpenoid (Steroidal saponin)
24	23	13.61	a-acorenol	C ₁₅ H ₂₆ O	0.91	Terpenoid (Sesquiterpene alcohol)
25	29	14.46	6-epi-shyobunol	C ₁₅ H ₂₆ O	0.91	Terpenoid (Sesquiterpene alcohol)
26	9	11.03	Bicyclo[7.2.0]undec-4-ene, 4,11,11-trimethyl-8-methylene-, [1R-(1R*,4Z,9S*)]-	C ₁₅ H ₂₄	0.88	Terpenoid (Sesquiterpene cyclic)
27	84	25.31	Ethyl iso-allocholate	C ₂₆ H ₄₄ O ₅	0.87	Terpenoid (Steroid)
28	61	20.93	1-Heptatriacotanol	C ₃₇ H ₇₆ O	0.84	Long chain aliphatic alcohols/ Fatty alcohols
29	106	31.16	Ethyl iso-allocholate	C ₂₆ H ₄₄ O ₅	0.8	Terpenoid (Steroid)

30	107	31.42	2-[4-methyl-6-(2,6,6-trimethylcyclohex-1-en-1-yl)hexa-1,3,5-trienyl]cyclohex-1-en-1-carboxaldehyde	C ₂₃ H ₃₂ O	0.78	Terpenoid (Carotenoid)
31	30	14.53	Cholestan-3-ol, 2-methylene-, (3fl,5a)-	C ₂₈ H ₄₈ O	0.76	Terpenoid (Steroid)
32	73	23.32	2-[4-methyl-6-(2,6,6-trimethylcyclohex-1-en-1-yl)hexa-1,3,5-trienyl]cyclohex-1-en-1-carboxaldehyde	C ₂₃ H ₃₂ O	0.67	Terpenoid (Carotenoid)
33	39	15.88	1-Heptatriacotanol	C ₃₇ H ₇₆ O	0.65	Long chain aliphatic alcohols/ Fatty alcohols
34	89	26.29	Ethyl iso-allocholate	C ₂₆ H ₄₄ O ₅	0.59	Terpenoid (Steroid)
35	88	26.02	Ethyl iso-allocholate	C ₂₆ H ₄₄ O ₅	0.58	Terpenoid (Steroid)
36	57	19.77	1-Heptatriacotanol	C ₃₇ H ₇₆ O	0.54	Long chain aliphatic alcohols/ Fatty alcohols
37	97	27.63	4H-Cyclopropa[5',6']benz[1',2':7,8]azuleno[5,6-b]oxiren-4-one, 8-(acetyloxy)-1,1a,1b,1c,2a,3,3a,6a,6b,7,8,8a-dodecahydro-3a,6b,8a-trihydroxy-2a-(hydroxymethyl)-1,1,5,7-tetramethyl-, (1aa,1bfl,1cfl,2afl,3afl,6aa,6ba,7a,8fl,8aa)-	C ₂₂ H ₃₀ O ₈	0.53	Terpenoid (Diterpenoid)
38	90	26.46	4H-Cyclopropa[5',6']benz[1',2':7,8]azuleno[5,6-b]oxiren-4-one, 8-(acetyloxy)-1,1a,1b,1c,2a,3,3a,6a,6b,7,8,8a-dodecahydro-3a,6b,8a-trihydroxy-2a-(hydroxymethyl)-1,1,5,7-tetramethyl-, (1aa,1bfl,1cfl,2afl,3afl,6aa,6ba,7a,8fl,8aa)-	C ₂₂ H ₃₀ O ₈	0.49	Terpenoid (Diterpenoid)
39	28	14.38	(1R,7S,E)-7-Isopropyl-4,10-dimethylenecyclodec-5-enol	C ₁₅ H ₂₄ O	0.47	Terpenoid (Sesquiterpene alcohol)
40	102	29.88	2,4,6-Decatrienoic acid, 1a,2,5,5a,6,9,10,10a-octahydro-5,5a-dihydroxy-4-(hydroxymethyl)-1,1,7,9-tetramethyl-11-oxo-1H-2,8a-methanocyclopenta[a]cyclopropa[e]cyclodecen-6-yl ester, [1aR-(1aa,2a,5fl,5afl,6fl,8aa,9a,10aa)]-	C ₃₀ H ₄₀ O ₆	0.43	Terpenoid (Triterpenoid)
41	37	15.73	9,12,15-Octadecatrienoic acid, 2,3-dihydroxypropyl ester, (Z,Z,Z)-	C ₂₁ H ₃₆ O ₄	0.42	Fatty acid derivatives
42	68	22.21	Ethyl iso-allocholate	C ₂₆ H ₄₄ O ₅	0.4	Terpenoid (Steroid)
43	69	22.32	2-[4-methyl-6-(2,6,6-trimethylcyclohex-1-en-1-yl)hexa-1,3,5-trienyl]cyclohex-1-en-1-carboxaldehyde	C ₂₃ H ₃₂ O	0.39	Terpenoid (Carotenoid)
44	41	16.24	13-Heptadecyn-1-ol	C ₁₇ H ₃₂ O	0.38	Long chain aliphatic alcohols/ Fatty alcohols
45	86	25.65	Ethyl iso-allocholate	C ₂₆ H ₄₄ O ₅	0.37	Terpenoid (Steroid)
46	27	14.02	1-Heptatriacotanol	C ₃₇ H ₇₆ O	0.36	Long chain aliphatic alcohols/ Fatty alcohols
47	92	26.79	4H-Cyclopropa[5',6']benz[1',2':7,8]azuleno[5,6-b]oxiren-4-one, 8-(acetyloxy)-1,1a,1b,1c,2a,3,3a,6a,6b,7,8,8a-dodecahydro-3a,6b,8a-trihydroxy-2a-(hydroxymethyl)-1,1,5,7-tetramethyl-, (1aa,1bfl,1cfl,2afl,3afl,6aa,6ba,7a,8fl,8aa)-	C ₂₂ H ₃₀ O ₈	0.32	Terpenoid (Triterpenoid)
48	46	17.4	1-Heptatriacotanol	C ₃₇ H ₇₆ O	0.31	Long chain aliphatic alcohols/ Fatty alcohols
49	45	17.12	1-Heptatriacotanol	C ₃₇ H ₇₆ O	0.3	Long chain aliphatic alcohols/ Fatty alcohols
50	53	18.92	9,12,15-Octadecatrienoic acid, 2,3-dihydroxypropyl ester, (Z,Z,Z)-	C ₂₁ H ₃₆ O ₄	0.3	Fatty acid derivatives
51	2	6.6	[1,1'-Bicyclopropyl]-2-octanoic acid, 2'-hexyl-, methyl ester	C ₂₁ H ₃₈ O ₂	0.27	Fatty acid derivatives
52	98	28.49	2,4,6-Decatrienoic acid, 1a,2,5,5a,6,9,10,10a-octahydro-5,5a-dihydroxy-4-(hydroxymethyl)-1,1,7,9-tetramethyl-11-oxo-1H-2,8a-methanocyclopenta[a]cyclopropa[e]cyclodecen-6-yl ester, [1aR-(1aa,2a,5fl,5afl,6fl,8aa,9a,10aa)]-	C ₃₀ H ₄₀ O ₆	0.26	Terpenoid (Triterpenoid)
53	26	13.96	1-Heptatriacotanol	C ₃₇ H ₇₆ O	0.26	Long chain aliphatic alcohols/ Fatty alcohols

54	42	16.3	1-Heptatriacotanol	C ₃₇ H ₇₆ O	0.26	Long chain aliphatic alcohols/ Fatty alcohols
55	24	13.68	a-acorenol	C ₁₅ H ₂₆ O	0.24	Terpenoid (Sesquiterpene alcohol)
56	59	20.2	Ethyl iso-allocholate	C ₂₆ H ₄₄ O ₅	0.23	Terpenoid (Steroid)
57	44	16.99	1-Heptatriacotanol	C ₃₇ H ₇₆ O	0.22	Long chain aliphatic alcohols/ Fatty alcohols
58	56	19.64	Ethyl iso-allocholate	C ₂₆ H ₄₄ O ₅	0.22	Terpenoid (Steroid)
59	79	24.39	Ethyl iso-allocholate	C ₂₆ H ₄₄ O ₅	0.2	Terpenoid (Steroid)
60	54	19.28	1-Heptatriacotanol	C ₃₇ H ₇₆ O	0.2	Long chain aliphatic alcohols/ Fatty alcohols
61	40	16.05	1-Heptatriacotanol	C ₃₇ H ₇₆ O	0.19	Long chain aliphatic alcohols/ Fatty alcohols
62	6	8.14	10-Heptadecen-8-ynoic acid, methyl ester, (E)-	C ₁₈ H ₃₀ O ₂	0.19	Fatty acid derivatives
63	35	15.36	2-[4-methyl-6-(2,6,6-trimethylcyclohex-1-en-1-yl)hexa-1,3,5-trienyl]cyclohex-1-en-1-carboxaldehyde	C ₂₃ H ₃₂ O	0.19	Terpenoid (Carotenoid)
64	70	22.64	Ethyl iso-allocholate	C ₂₆ H ₄₄ O ₅	0.19	Terpenoid (Steroid)
65	15	12.11	6-epi-shyobunol	C ₁₅ H ₂₆ O	0.19	Terpenoid (Sesquiterpene alcohol)
66	55	19.47	2-[4-methyl-6-(2,6,6-trimethylcyclohex-1-en-1-yl)hexa-1,3,5-trienyl]cyclohex-1-en-1-carboxaldehyde	C ₂₃ H ₃₂ O	0.18	Terpenoid (Carotenoid)
67	62	21.02	Ethyl iso-allocholate	C ₂₆ H ₄₄ O ₅	0.18	Terpenoid (Steroid)
68	74	23.38	2-[4-methyl-6-(2,6,6-trimethylcyclohex-1-en-1-yl)hexa-1,3,5-trienyl]cyclohex-1-en-1-carboxaldehyde	C ₂₃ H ₃₂ O	0.18	Terpenoid (Carotenoid)
69	33	14.9	2-[4-methyl-6-(2,6,6-trimethylcyclohex-1-en-1-yl)hexa-1,3,5-trienyl]cyclohex-1-en-1-carboxaldehyde	C ₂₃ H ₃₂ O	0.17	Terpenoid (Carotenoid)
70	49	18.37	9,10-Secocholesta-5,7,10(19)-triene-3,24,25-triol, (3fl,5Z,7E)-	C ₂₇ H ₄₄ O ₃	0.17	Terpenoid (Steroid)
71	36	15.58	1-Heptatriacotanol	C ₃₇ H ₇₆ O	0.16	Long chain aliphatic alcohols/ Fatty alcohols
72	75	23.56	2-[4-methyl-6-(2,6,6-trimethylcyclohex-1-en-1-yl)hexa-1,3,5-trienyl]cyclohex-1-en-1-carboxaldehyde	C ₂₃ H ₃₂ O	0.16	Terpenoid (Carotenoid)
73	7	10.45	a-ylangene	C ₁₅ H ₂₄	0.15	Terpenoid (Sesquiterpenes)
74	18	12.92	6,9,12,15-Docosatetraenoic acid, methyl ester	C ₂₃ H ₃₈ O ₂	0.13	Fatty acid derivatives
75	12	11.74	a-acorenol	C ₁₅ H ₂₆ O	0.13	Terpenoid (Sesquiterpene alcohol)
76	93	26.94	Ethyl iso-allocholate	C ₂₆ H ₄₄ O ₅	0.13	Terpenoid (Steroid)
77	1	4.5	Z,Z,Z-4,6,9-Nonadecatriene	C ₁₉ H ₃₄	0.13	Terpenoid (Aliphatic hydrocarbon)
78	77	23.98	2-[4-methyl-6-(2,6,6-trimethylcyclohex-1-en-1-yl)hexa-1,3,5-trienyl]cyclohex-1-en-1-carboxaldehyde	C ₂₃ H ₃₂ O	0.13	Terpenoid (Carotenoid)
79	11	11.48	10-Heptadecen-8-ynoic acid, methyl ester, (E)-	C ₁₈ H ₃₀ O ₂	0.13	Fatty acid derivatives
80	72	22.89	Ethyl iso-allocholate	C ₂₆ H ₄₄ O ₅	0.12	Terpenoid (Steroid)
81	71	22.82	Ethyl iso-allocholate	C ₂₆ H ₄₄ O ₅	0.12	Terpenoid (Steroid)
82	76	23.82	2,4,6-Decatrienoic acid, 1a,2,5,5a,6,9,10,10a-octahydro-5,5a-dihydroxy-4-(hydroxymethyl)-1,1,7,9-tetramethyl-11-oxo-1H-2,8a-methanocyclopenta[a]cyclopropa[e]cyclodecen-6-yl ester, [1aR-(1a,2a,5fl,5af,6fl,8aa,9a,10aa)]-	C ₃₀ H ₄₀ O ₆	0.12	Terpenoid (Triterpenoid)
83	20	13.22	2-[4-methyl-6-(2,6,6-trimethylcyclohex-1-en-1-yl)hexa-1,3,5-trienyl]cyclohex-1-en-1-carboxaldehyde	C ₂₃ H ₃₂ O	0.12	Terpenoid (Carotenoid)
84	5	7.32	[1,1'-Bicyclopropyl]-2-octanoic acid, 2'-hexyl-, methyl ester	C ₂₁ H ₃₈ O ₂	0.11	Fatty acid derivatives

85	105	31.06	Methyl glycocholate, 3TMS derivative	C ₃₆ H ₆₉ NO ₆ Si ₃	0.11	Terpenoid (Steroid)
86	43	16.71	Cyclopropanebutanoic acid, 2-[[2-[[2-(2-pentylcyclopropyl)methyl]cyclopropyl)methyl]cyclopropyl)methyl]-, methyl ester	C ₂₅ H ₄₂ O ₂	0.1	Fatty acid derivatives
87	101	29.42	2,4,6-Decatrienoic acid, 1a,2,5,5a,6,9,10,10a-octahydro-5,5a-dihydroxy-4-(hydroxymethyl)-1,1,7,9-tetramethyl-11-oxo-1H-2,8a-methanocyclopenta[a]cyclopropa[e]cyclodecen-6-yl ester, [1aR-(1aa,2a,5fl,5afl,6fl,8aa,9a,10aa)]-	C ₃₀ H ₄₀ O ₆	0.1	Terpenoid (Triterpenoid)
88	8	10.63	fl-copaene	C ₁₅ H ₂₄	0.09	Terpenoid (Sesquiterpenes epoxides)
89	10	11.15	12,15-Octadecadiynoic acid, methyl ester	C ₁₉ H ₃₀ O ₂	0.09	Fatty acid derivatives
90	48	17.93	1-Heptatriacotanol	C ₃₇ H ₇₆ O	0.08	Long chain aliphatic alcohols/ Fatty alcohols
91	17	12.86	1-Heptatriacotanol	C ₃₇ H ₇₆ O	0.08	Long chain aliphatic alcohols/ Fatty alcohols
92	100	29.31	2,4,6-Decatrienoic acid, 1a,2,5,5a,6,9,10,10a-octahydro-5,5a-dihydroxy-4-(hydroxymethyl)-1,1,7,9-tetramethyl-11-oxo-1H-2,8a-methanocyclopenta[a]cyclopropa[e]cyclodecen-6-yl ester, [1aR-(1aa,2a,5fl,5afl,6fl,8aa,9a,10aa)]-	C ₃₀ H ₄₀ O ₆	0.08	Terpenoid (Triterpenoid)
93	52	18.75	Ethyl iso-allocholate	C ₂₆ H ₄₄ O ₅	0.08	Terpenoid (Steroid)
94	21	13.4	Caryophyllene oxide	C ₁₅ H ₂₄ O	0.07	Terpenoid (Sesquiterpenes epoxides)
95	103	30.12	2,4,6-Decatrienoic acid, 1a,2,5,5a,6,9,10,10a-octahydro-5,5a-dihydroxy-4-(hydroxymethyl)-1,1,7,9-tetramethyl-11-oxo-1H-2,8a-methanocyclopenta[a]cyclopropa[e]cyclodecen-6-yl ester, [1aR-(1aa,2a,5fl,5afl,6fl,8aa,9a,10aa)]-	C ₃₀ H ₄₀ O ₆	0.07	Terpenoid (Triterpenoid)
96	81	24.83	Ethyl iso-allocholate	C ₂₆ H ₄₄ O ₅	0.06	Terpenoid (Steroid)
97	108	31.82	Spirost-8-en-11-one, 3-hydroxy-, (3fl,5a,14fl,20fl,22fl,25R)-	C ₂₇ H ₄₀ O ₄	0.06	Terpenoid (Steroidal saponin)
98	50	18.48	Ethyl iso-allocholate	C ₂₆ H ₄₄ O ₅	0.06	Terpenoid (Steroid)
99	4	7.15	12,15-Octadecadiynoic acid, methyl ester	C ₁₉ H ₃₀ O ₂	0.06	Fatty acid derivatives
100	3	6.86	[1,1'-Bicyclopropyl]-2-octanoic acid, 2'-hexyl-, methyl ester	C ₂₁ H ₃₈ O ₂	0.06	Fatty acid derivatives
101	34	15.23	1-Heptatriacotanol	C ₃₇ H ₇₆ O	0.06	Long chain aliphatic alcohols/ Fatty alcohols
102	96	27.37	2,4,6-Decatrienoic acid, 1a,2,5,5a,6,9,10,10a-octahydro-5,5a-dihydroxy-4-(hydroxymethyl)-1,1,7,9-tetramethyl-11-oxo-1H-2,8a-methanocyclopenta[a]cyclopropa[e]cyclodecen-6-yl ester, [1aR-(1aa,2a,5fl,5afl,6fl,8aa,9a,10aa)]-	C ₃₀ H ₄₀ O ₆	0.06	Terpenoid (Triterpenoid)
103	25	13.77	6,9,12,15-Docosatetraenoic acid, methyl ester	C ₂₃ H ₃₈ O ₂	0.06	Fatty acid derivatives
104	60	20.74	Ethyl iso-allocholate	C ₂₆ H ₄₄ O ₅	0.06	Terpenoid (Steroid)
105	95	27.3	2,4,6-Decatrienoic acid, 1a,2,5,5a,6,9,10,10a-octahydro-5,5a-dihydroxy-4-(hydroxymethyl)-1,1,7,9-tetramethyl-11-oxo-1H-2,8a-methanocyclopenta[a]cyclopropa[e]cyclodecen-6-yl ester, [1aR-(1aa,2a,5fl,5afl,6fl,8aa,9a,10aa)]-	C ₃₀ H ₄₀ O ₆	0.06	Terpenoid (Triterpenoid)
106	32	14.74	2-[4-methyl-6-(2,6,6-trimethylcyclohex-1-enyl)hexa-1,3,5-trienyl]cyclohex-1-en-1-carboxaldehyde	C ₂₃ H ₃₂ O	0.06	Terpenoid (Carotenoid)
107	31	14.64	1-Heptatriacotanol	C ₃₇ H ₇₆ O	0.00	Long chain aliphatic alcohols/ Fatty alcohols

¹⁰ ₈	64	21.77	Ethyl iso-allocholate	C ₂₆ H ₄₄ O ₅	0.00	Terpenoid (Steroid)
----------------------------	----	-------	-----------------------	--	------	---------------------
