Supplementary Information

Volatile Compounds from the Bark Bugs *Phloea subquadrata* and *Phloeophana longirostris* (Heteroptera: Phloeidae)

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Table S1. Relative abundance of volatiles detected in *Phloea subquadrata* and *Phloeophana longirostris* by GC-MS[a]

No.	RI	ID[b]	Compound	Relative abundance / %									
				Adult[d]				Nymphal instar					
				Male		Female		2nd		3rd		4th	5th
				Ps[c]	*Pl*	*Ps*	*Pl*	*Ps*	*Pl*	*Ps*	*Pl*	*Ps*	*Ps*
1	686	MS RI	1-penten-3-one	0.1 ± 0.06	–	–	–	–	–	–	–	–	–
2	703	IS, MS, RI	2-ethylfuran	0.01 ± 0.0	–	–	–	–	–	–	–	–	–

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No.	RI	ID[b]	Compound	Relative abundance / %										
				Adult[d]				Nymphal instar						
				Male		Female		2nd		3rd		4th		5th
				Ps[c]	*Pl*	*Ps*	*Pl*	*Ps*	*Pl*	*Ps*	*Pl*	*Ps*	*Pl*	*Ps*
3	723	MS, RI	2-vinylfuran	–	–	–	–	0.05 ± 0.02	0.09 ± 0.05	0.01 ± 0.01	0.03 ± 0.01	0.03 ± 0.03	0.14 ± 0.09	–
4	742	MS, RI	2-methyl-2-butenal	0.04 ± 0.02	–	–	–	–	–	–	–	–	–	–
5	754	MS, RI	(*E*)-2-pentenal	0.04 ± 0.01	–	–	–	0.11 ± 0.03	0.06 ± 0.05	0.03 ± 0.01	0.08 ± 0.06	0.11 ± 0.03	0.13 ± 0.12	0.05 ± 0.01
6	778	MS, RI	methyl 2-methylbutanoate	0.05 ± 0.02	–	0.02 ± 0.01	0.03 ± 0.00	–	–	–	–	–	–	–
7	800	MS, RI	2- methyl -3-pentenal	0.04 ± 0.01	0.43 ± 0.23	0.07 ± 0.03	0.53 ± 0.17	–	0.03 ± 0.03	0.04 ± 0.02	0.02 ± 0.00	0.02 ± 0.0	0.04 ± 0.00	–
8	800	MS, RI	(*E*)-3-hexenal	–	–	0.09 ± 0.10	–	–	–	–	–	–	–	–
9	850	IS, MS, RI	(*Z*)-2-hexenal	0.21 ± 0.13	0.97 ± 0.12	0.21 ± 0.16	0.57 ± 0.54	0.08 ± 0.07	0.03 ± 0.00	0.09 ± 0.10	0.05 ± 0.03	0.05 ± 0.04	0.08 ± 0.01	0.03 ± 0.01
10	878	IS, MS, RI	(*E*)-2-hexenal	25.24 ± 4.13	48.5 ± 7.02	23.1 ± 7.89	73.12 ± 6.58	14.51 ± 13.61	3.97 ± 4.94	7.65 ± 7.12	7.96 ± 5.0	6.87 ± 2.79	8.93 ± 2.80	3.33 ± 0.13
11	879	MS, RI	5- methyl -2(3*H*)-furanone	–	0.13 ± 0.04	–	–	0.48 ± 0.28	–	0.96 ± 0.35	–	0.24 ± 0.07	–	0.89 ± 0.07
12	880	MS, RI	(*E*)-2-hexen-1-ol	0.22 ± 0.11	2.68 ± 2.04	0.3 ± 0.24	0.40 ± 0.02	–	–	–	–	–	–	–
13	890	NI	unknown 1	–	–	–	–	0.07 ± 0.02	–	–	–	–	–	–
14	900	IS, MS, RI	nonane	–	–	0.01 ± 0.01	–	–	0.01 ± 0.00	–	–	0.03 ± 0.02	0.01 ± 0.00	–
15	912	MS, RI	2,4-hexadienal	0.09 ± 0.04	–	0.04 ± 0.03	0.11 ± 0.04	–	–	–	–	–	–	–

Table S1. Relative abundance of volatiles detected in *Phloea subquadrata* and *Phloeophana longirostris* by GC-MS[a] (cont.)

No.	RI	ID[b]	Compound	Relative abundance / %										
				Adult[d]				Nymphal instar						
				Male		Female		2nd		3rd		4th		5th
				Ps[c]	*Pl*	*Ps*	*Pl*	*Ps*	*Pl*	*Ps*	*Pl*	*Ps*	*Pl*	*Ps*
16	916	MS, RI	3- methyl -2-butenyl acetate	0.05 ± 0.04	0.09 ± 0.04	0.03 ± 0.01	–	0.03 ± 0.04	–	–	–	–	–	–
17	927	MS, RI	methylhexanoate	0.02 ± 0.01	–	–	0.04 ± 0.02	–	–	–	–	–	–	–
18	936	MS, RI	3-hepten-2-one	0.06 ± 0.01	–	0.01 ± 0.01	–	–	–	–	–	–	–	–
19	957	IS, MS, RI	(*E*)-4-oxo-2-hexenal	2.19 ± 0.90	–	0.57 ± 0.48	0.19 ± 0.17	22.71 ± 15.47	–	41.13 ± 6.5	–	5.32 ± 3.68	29.73 ± 7.6	33.59 ± 1.99
20	967	MS, RI	3- methyl-methylhexanoate	0.18 ± 0.09	–	0.08 ± 0.07	0.03 ± 0.00	–	–	–	–	–	–	–
22	973	MS, RI	5-ethyl-2(3H)-furanone	–	–	–	–	–	0.33 ± 0.15	0.44 ± 0.19	1.08 ± 0.75	10.56 ± 9.5	–	0.44 ± 0.17
23	976	NI	unknown 2	4.92 ± 3.62	–	6.57 ± 5.87	–	15.01 ± 9.43	0.49 ± 0.06	0.78 ± 0.12	0.44 ± 0.34	8.39 ± 5.99	0.66 ± 0.26	1.28 ± 0.74
24	1000	IS, MS, RI	decane	2.32 ± 0.72	1.64 ± 0.22	1.88 ± 0.51	0.26 ± 0.13	0.72 ± 0.29	0.70 ± 0.00	0.57 ± 0.19	1.28 ± 0.68	0.84 ± 0.12	1.16 ± 0.26	0.71 ± 0.41
25	1007	MS, RI	(*Z*)-3-hexenyl acetate	0.03 ± 0.01	–	–	0.16 ± 0.19	–	–	–	–	–	–	–
26	1008	MS, RI	(*Z*)-2-hexenyl acetate	0.05 ± 0.02	–	0.04 ± 0.01	–	–	–	–	–	–	–	–
27	1012	MS, RI	hexyl acetate	0.12 ± 0.09	–	0.10 ± 0.08	0.08 ± 0.07	–	–	–	–	–	–	–
28	1015	IS, MS, RI	(*E*)-2-hexenyl acetate	10.35 ± 5.29	4.14 ± 3.47	27.15 ± 3.51	0.77 ± 0.91	–	–	–	–	–	–	–
29	1028	NI	unknown 3	–	–	–	–	0.40 ± 0.39	–	–	–	0.34 ± 0.16	0.12 ± 0.05	–
30	1040	MS, RI	5-ethyl-2(5*H*)-furanone	0.14 ± 0.08	–	–	–	0.45 ± 0.36	–	0.19 ± 0.14	–	0.15 ± 0.05	0.13 ± 0.03	0.06 ± 0.03
31	1047	MS, RI	(*Z*)-2-octenal	–	–	–	0.02 ± 0.01	0.29 ± 0.12	0.22 ± 0.15	0.35 ± 0.19	0.13 ± 0.03	0.38 ± 0.31	0.37 ± 0.09	0.21 ± 0.05
32	1060	IS, MS, RI	(*E*)-2-octenal	0.08 ± 0.05	1.82 ± 1.33	0.14 ± 0.08	3.88 ± 1.91	22.25 ± 2.75	26.75 ± 2.46	22.18 ± 2.62	20.74 ± 1.78	27.39 ± 4.75	24.03 ± 4.14	24.91 ± 3.97

Table S1. Relative abundance of volatiles detected in *Phloea subquadrata* and *Phloeophana longirostris* by GC-MS[a] (cont.)

No.	RI	ID[b]	Compound	Relative abundance / %										
				Adult[d]				Nymphal instar						
				Male		Female		2nd		3rd		4th		5th
				Ps[c]	*Pl*	*Ps*	*Pl*	*Ps*	*Pl*	*Ps*	*Pl*	*Ps*	*Pl*	*Ps*
33	1070	NI	unknown 4	0.09 ± 0.05	–	0.03 ± 0.01	–	–	–	–	0.55 ± 0.29	–	–	–
35	1082	MS, RI	2-cyclohexen-1.4-dione	–	–	–	–	–	–	–	–	0.19 ± 0.03	–	–
36	1092	MS, RI	1-undecene	0.45 ± 0.23	0.50 ± 0.23	0.53 ± 0.15	0.10 ± 0.07	0.28 ± 0.09	0.23 ± 0.04	0.16 ± 0.06	0.51 ± 0.21	0.28 ± 0.08	0.33 ± 0.12	0.18 ± 0.07
37	1100	IS, MS, RI	undecane	55.04 ± 6.79	32.37 ± 10.46	50.52 ± 9.88	8.98 ± 6.32	23.84 ± 7.61	19.07 ± 1.03	19.85 ± 2.53	33.47 ± 7.70	28.18 ± 7.56	27.90 ± 4.68	26.08 ± 6.05
38	1143	MS, RI	2-isopropylcyclohexanone	–	–	–	–	1.07 ± 0.49	0.60 ± 0.44	3.58 ± 0.93	0.31 ± 0.21	2.42 ± 1.79	0.16 ± 0.05	3.55 ± 3.04
39	1160	MS, RI	(E)-2-nonenal	–	–	–	–	0.10 ± 0.01	0.17 ± 0.05	–	0.07 ± 0.02	0.09 ± 0.03	0.06 ± 0.01	–
40	1165	MS, RI	2-propyl cyclohexanone	–	–	–	–	1.65 ± 1.77	–	0.36 ± 0.37	–	1.70 ± 0.51	0.07 ± 0.02	–
41	1193	MS, RI	2-hexenyl butanoate	0.15 ± 0.10	–	0.09 ± 0.08	0.03 ± 0.03	–	–	–	–	–	–	–
42	1200	IS, MS, RI	dodecane	0.33 ± 0.26	0.38 ± 0.08	0.22 ± 0.08	0.07 ± 0.05	0.10 ± 0.07	0.09 ± 0.01	0.06 ± 0.02	0.25 ± 0.12	0.36 ± 0.36	0.13 ± 0.06	0.14 ± 0.08
43	1210	MS, IR	2-octenyl acetate	0.33 ± 0.14	1.43 ± 1.05	0.10 ± 0.04	1.17 ± 0.71	–	–	–	–	–	–	–
44	1251	MS, RI	(Z)-2-decenal	–	–	–	–	–	–	–	–	0.02 ± 0.01	–	–
45	1255	MS, RI	2.4-decadienal	–	–	–	–	–	–	–	–	0.05 ± 0.03	–	–
46	1264	MS, IR	(E)-2-decenal	–	–	–	–	1.36 ± 0.32	0.67 ± 0.21	0.90 ± 0.34	0.33 ± 0.32	2.00 ± 0.81	1.27 ± 0.89	1.49 ± 1.59
47	1288	MS, RI	1-tridecene	0.03 ± 0.02	–	0.01 ± 0.00	–	–	–	0.06 ± 0.03	–	0.05 ± 0.02	–	–
48	1290	MS, RI	tridecene (isomer 2)	0.05 ± 0.04	–	0.02 ± 0.00	0.11 ± 0.08	–	0.05 ± 0.01	0.05 ± 0.02	0.08 ± 0.02	0.05 ± 0.02	–	–

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No.	RI	ID[b]	Compound	Relative abundance / %										
				Adult[d]				Nymphal instar						
				Male		Female		2nd		3rd		4th		5th
				Ps[c]	*Pl*	*Ps*	*Pl*	*Ps*	*Pl*	*Ps*	*Pl*	*Ps*	*Pl*	*Ps*
49	1293	MS, RI	trideceno (isomer 3)	0.09 ± 0.07	–	0.05 ± 0.00	0.03 ± 0.01	–	1.53 ± 0.42	–	3.63 ± 2.09	0.05 ± 0.02	0.05 ± 0.01	–
50	1300	IS, MS, RI	tridecane	3.4 ± 1.87	0.76 ± 0.57	3.32 ± 1.06	1.35 ± 0.85	2.40 ± 1.55	–	1.79 ± 1.18	–	3.66 ± 2.17	2.47 ± 0.74	3.06 ± 0.42
51	1400	IS, MS, IR	tetradecane	–	0.08 ± 0.01	–	–	–	–	–	–	0.14 ± 0.17	–	–
52	1433	MS, RI	undecanol	–	–	–	–	–	–	–	–	0.05 ± 0.03	–	–
53	1439	MS, RI	β-humulene	0.13 ± 0.09	0.27 ± 0.19	–	0.03 ± 0.01	–	–	–	–	–	–	–
54	1474	IS, MS, RI	α-caryophyllene	0.24 ± 0.18	–	0.30 ± 0.24	0.89 ± 0.44	–	–	–	–	–	–	–
55	1484	MS, RI	pentadecane isomer	–	–	–	–	–	–	0.03 ± 0.01	–	0.03 ± 0.01	–	–
56	1500	MS, RI	pentadecane	–	–	–	–	–	0.09 ± 0.03	0.11 ± 0.00	–	0.15 ± 0	0.12 ± 0.02	–
57[e]	767	MS, RI	acetic acid. 2-methylpropyl ester	–	0.04 ± 0.03	–	–	–	–	–	–	–	–	–
58	780	MS, RI	3-methyl-2-butenal	–	0.10 ± 0.08	–	–	–	–	–	–	–	–	–
59	867	MS, RI	furanone	–	–	–	–	–	–	–	0.40 ± 0.33	–	0.42 ± 0.32	–
60	870	MS, RI	hexenol isomer	–	–	–	2.77 ± 2.99	–	–	–	–	–	–	–
61	874	MS, RI	2-methybutenyl acetate	–	0.22 ± 0.18	–	–	–	–	–	–	–	–	–
62	886	MS, I RI	unknown 5	–	–	–	–	–	–	–	0.04 ± 0.02	–	–	–

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No.	RI	ID[b]	Compound	Relative abundance / %										
				Adult[d]				Nymphal instar						
				Male		Female		2nd		3rd		4th		5th
				Ps[c]	*Pl*	*Ps*	*Pl*	*Ps*	*Pl*	*Ps*	*Pl*	*Ps*	*Pl*	*Ps*
63	919	MS, RI	3-ethyl-2.4-pentadien-1-ol	–	–	–	0.05 ± 0.00	–	–	–	–	–	–	–
64	933	MS, RI	2-ethyl-2-pentenal	–	–	–	0.02 ± 0.01	–	–	–	–	–	–	–
65	945	MS, RI	pentyl 2-pentenoate	–	–	–	0.11 ± 0.13	–	–	–	–	–	–	–
66	948	MS, RI	2-methylpropyl butanoate	–	0.10 ± 0.02	–	–	–	–	–	–	–	–	–
67	960	MS, RI	(*E*)-2-heptenal	–	–	–	0.03 ± 0.01	–	–	–	–	–	–	–
68	962	MS, RI	benzaldehyde	–	–	–	0.12 ± 0.03	–	–	–	–	–	–	–
69	971	MS, RI	furan isomer	–	–	–	–	–	44.53 ± 3.18	–	29.31 ± 7.22	–	2.53 ± 2.42	–
70	995	MS, RI	3-methyl-1-ethylcyclopentane	–	–	–	–	–	0.07 ± 0.03	–	0.03 ± 0.01	–	0.13 ± 0.03	–
71	995	MS, RI	β-pinene	–	0.11 ± 0.04	–	0.06 ± 0.03	–	–	–	–	–	–	–
72	995	MS, RI	butyl butanoate	–	–	–	0.01 ± 0.01	–	–	–	–	–	–	–
73	996	MS, RI	9-oxabicyclo[6.1.0]nonane	–	–	–	–	–	–	–	–	–	0.32 ± 0.04	–
74	1014	MS, RI	decane isomer	–	0.10 ± 0.08	–	–	–	–	–	–	–	–	–

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				Ps[c]	*Pl*	*Ps*	*Pl*	*Ps*	*Pl*	*Ps*	*Pl*	*Ps*	*Pl*	*Ps*
75	1023	MS, RI	2-methyl-5-(2-methyl-2-propenyl)-cyclohexanol	–	0.07 ± 0.01	–	–	–	–	–	–	–	–	–
76	1032	MS, RI	limonene	–	0.46 ± 0.54	–	0.02 ± 0.01	–	–	–	–	–	–	–
77	1038	MS, RI	5-mehyll-4-hexen-3-one	–	–	–	–	–	0.24 ± 0.07	–	0.08 ± 0.05	–	–	–
78	1050	MS, RI	3-oxiranyl-7-oxabicyclo[4.1.0]heptane	–	–	–	0.02 ± 0.00	–	–	–	–	–	–	–
79	1091	NI	unknown 6	–	–	–	0.08 ± 0.05	–	–	–	–	–	–	–
80	1097	MS, RI	benzoic acid methyl ester	–	–	–	0.24 ± 0.18	–	–	–	–	–	–	–
81	1145	MS, RI	“lilalic”aldehyde	–	0.09 ± 0.05	–	0.02 ± 0.001	–	–	–	–	–	–	–
82	1181	MS, RI	methyl 2-phenylacetate	–	–	–	0.01 ± 0.01	–	–	–	0.11 ± 0.13	–	–	–
83	1386	NI	unknown 7	–	–	–	0.07 ± 0.07	–	–	–	–	–	–	–
84	1401	MS, RI	α- copaene	–	–	–	0.19 ± 0.05	–	–	–	–	–	–	–
85	1403	NI	unknown 8	–	–	–	–	–	0.01 ± 0.00	–	–	–	–	–
86	1405	MS, RI	β-elemene	–	0.04 ± 0.00	–	0.09 ± 0.04	–	–	–	–	–	–	–

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No.	RI	ID[b]	Compound	Relative abundance / %										
				Adult[d]				Nymphal instar						
				Male		Female		2nd		3rd		4th		5th
				Ps[c]	*Pl*	*Ps*	*Pl*	*Ps*	*Pl*	*Ps*	*Pl*	*Ps*	*Pl*	*Ps*
87	1428	MS, RI	α-gurjunene	–	–	–	0.03 ± 0.01	–	–	–	–	–	–	–
88	1434	MS, RI	epi-bicyclosesquiphellandrene	–	0.01 ± 0.00	–	–	–	–	–	–	–	–	–
89	1448	MS, RI	β-gurjunene	–	–	–	0.30 ± 0.11	–	–	–	–	–	–	–
90	1462	MS, RI	β-aromadendrene	–	–	–	0.10 ± 0.33	–	–	–	–	–	–	–
91	1481	MS, RI	α-aromadendrene	–	–	–	0.20 ± 0.77	–	–	–	–	–	–	–
92	1488	NI	unknown 9	–	–	–	0.30 ± 0.12	–	–	–	–	–	–	–
93	1492	MS, RI	d-selinene	–	0.26 ± 0.19	–	1.34 ± 0.67	–	–	–	–	–	–	–
94	1506	MS, RI	β-selinene	–	–	–	1.26 ± 0.80	–	–	–	–	–	–	–
95	1515	MS, RI	α-selinene	–	0.37 ± 0.26	–	2.34 ± 1.33	–	–	–	–	–	–	–
96	1538	MS, RI	β-cadinene	–	–	–	0.24 ± 0.08	–	–	–	–	–	–	–
97	1562	MS, RI	β-germacrene	–	–	–	0.10 ± 0.08	–	–	–	–	–	–	–
98	1574	MS, RI	isoaromadendrene oxide	–	–	–	0.12 ± 0.10	–	–	–	–	–	–	–
99	1588	MS, RI	cedrene oxide	–	–	–	0.02 ± 0.01	–	–	–	–	–	–	–
100	1595	MS, RI	humulene oxide II	–	–	–	0.02 ± 0.02	–	–	–	–	–	–	–
101	1621	MS, RI	bisabolene oxide	–	–	–	0.07 ± 0.02	–	–	–	–	–	–	–
102	1633	MS, RI	humulene oxide III	–	–	–	0.19 ± 0.19	–	–	–	–	–	–	–
103	1652	MS, RI	allo-aromadendrene epoxide	–	–	–	0.08 ± 0.03	–	–	–	–	–	–	–

[a]Mean ± SD; constituents of relative abundance higher than 0.01% were considered for the analyses (GC-MS); compounds (**21**) and (**34**) are not listed on the table; [b]ID: identification procedure; RI: relative retention index; IS: internal standard; MS: mass fragmentation pattern compared with those in Wiley 275 library; NI: not identified; (–) not detected; [c]*Ps*: *Phloea subquadrata*; *Pl*: *Phloeophana longirostris*; [d]individuals of each group were analyzed individually, after mechanical disturbance, in a total of 52 individuals (*P. subquadrata*: 6 males, 6 females; 7-2nd, 6-3rd, 5-4th and 2-5th instar nymphs; *Phloeophana longirostris*: 6 males, 4 females; 2-2nd, 4-3rd, and 4-4th instar nymphs); [e]all compounds from (**57**) to (**103**) were exclusively detected in *Phloeophana longirostris*.

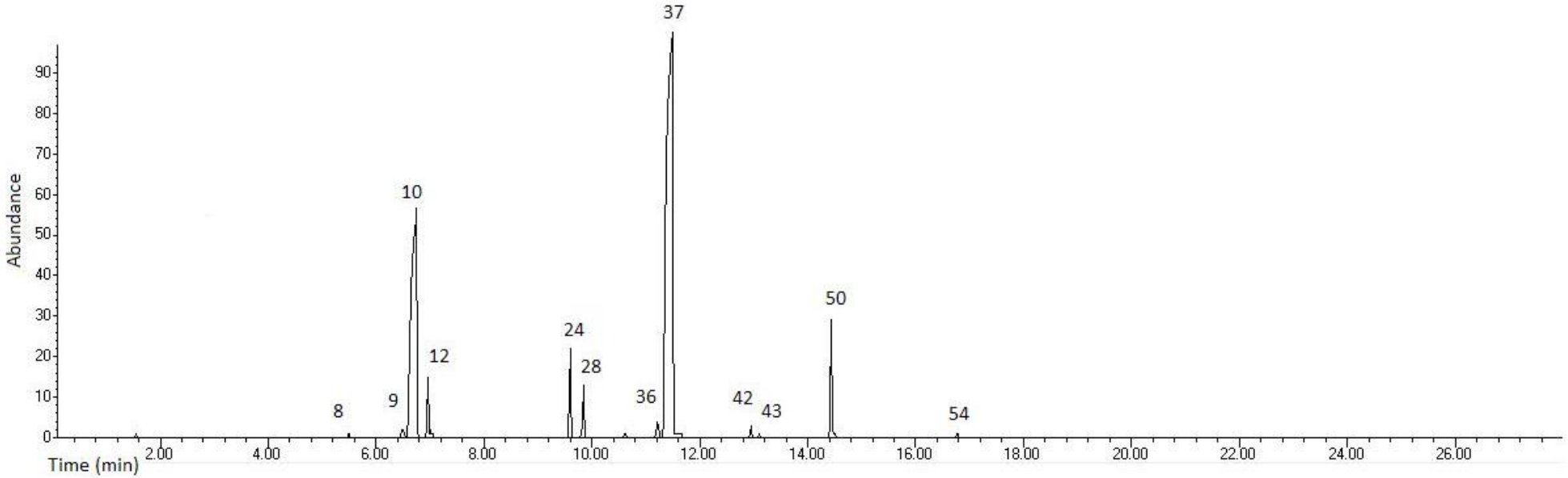

Figure S1. Total ion chromatogram (GC-MS/SPME) of volatile compounds released by a disturbed female of *Phloea subquadrata*. Analytical conditions were as follows: initial temperature of 40 °C (3 min) and then heating to 290 °C at 10 °C min^{-1}. The numbers on the peaks correspond to the numbers of the compounds listed in Table S1.

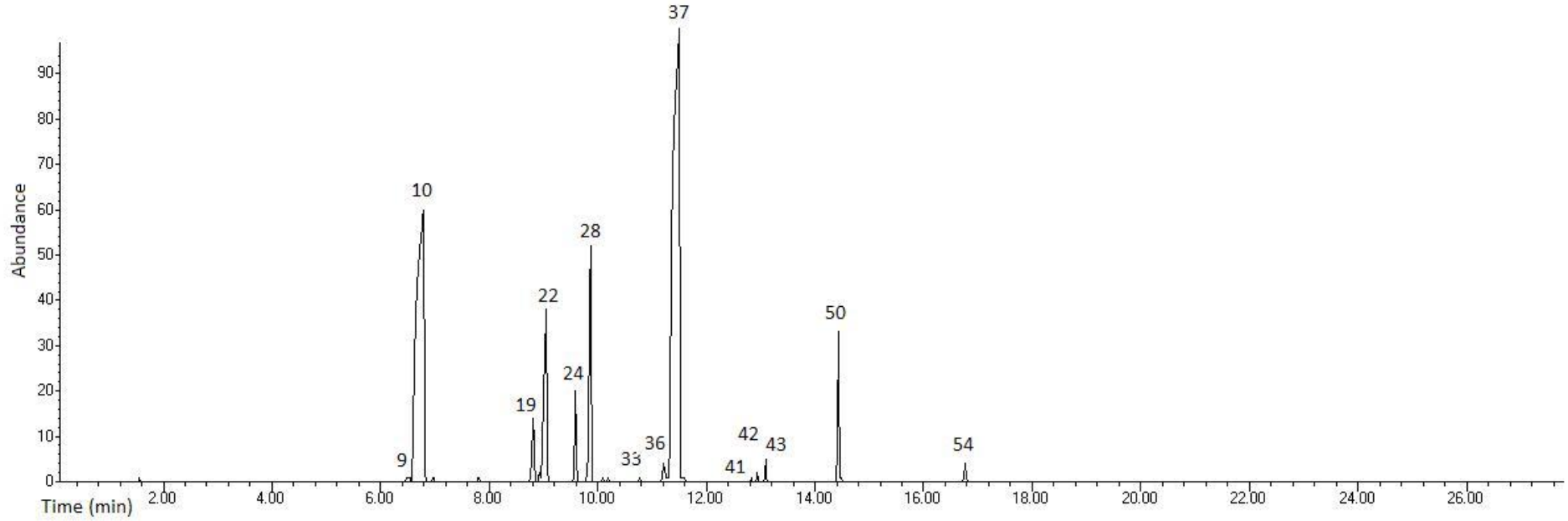

Figure S2. Total ion chromatogram (GC-MS/SPME) of volatile compounds released by a disturbed male of *Phloea subquadrata.* Analytical conditions were as follows: initial temperature of 40 °C (3 min) and then heating to 290 °C at 10 °C min^{-1}. The numbers on the peaks correspond to the numbers of the compounds listed in Table S1.

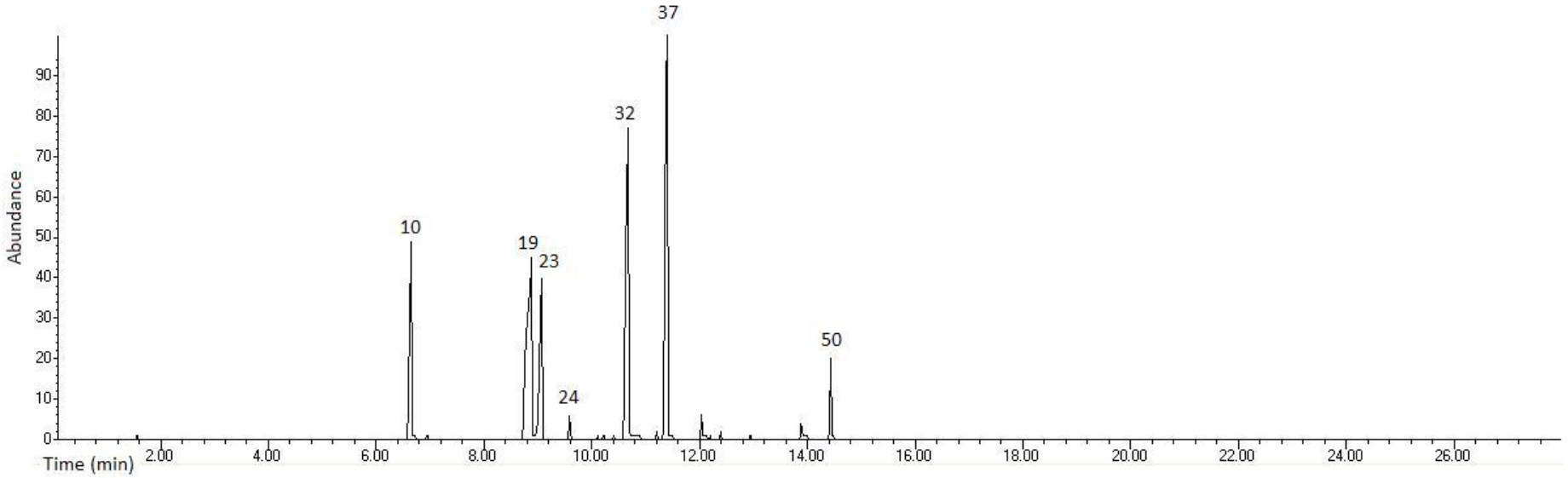

Figure S3. Total ion chromatogram (GC-MS/SPME) of volatile compounds released by a second instar nymph of *Phloea subquadrata* after disturbance. Analytical conditions were as follows: initial temperature of 40 °C (3 min) and then heating to 290 °C at 10 °C min^{-1}. The numbers on the peaks correspond to the numbers of the compounds listed in Table S1.

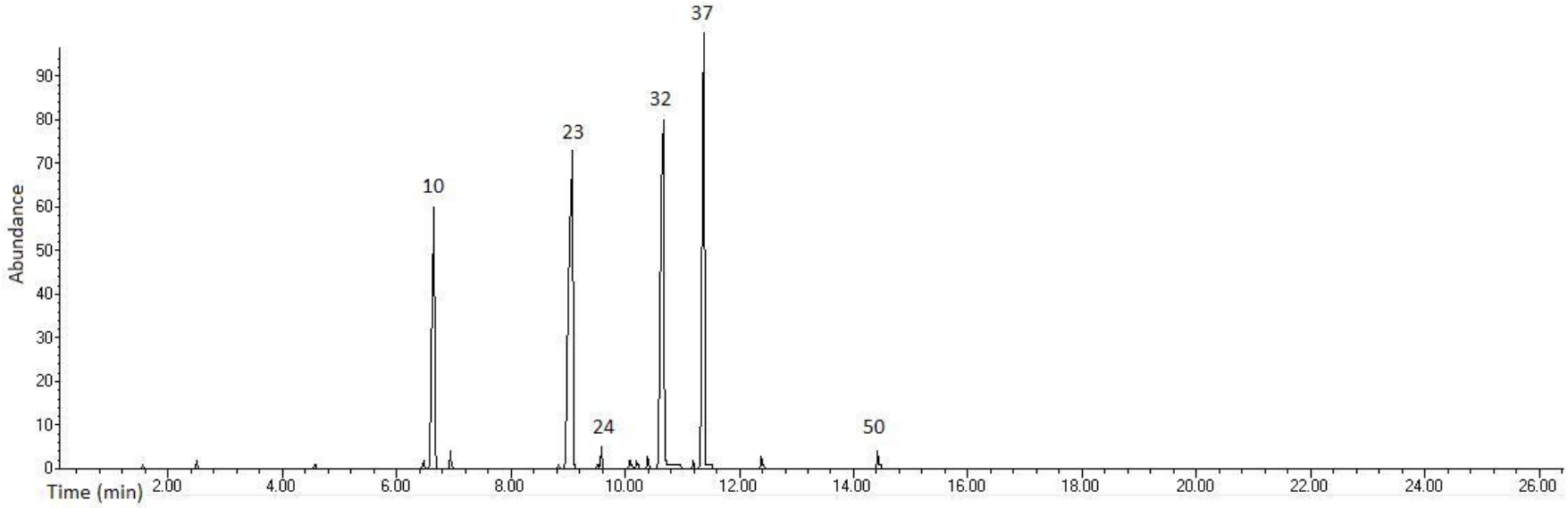

Figure S4. Total ion chromatogram (GC-MS/SPME) of volatile compounds released by a third instar nymph of *Phloea subquadrata* after disturbance. Analytical conditions were as follows: initial temperature of 40 °C (3 min) and then heating to 290 °C at 10 °C min^{-1}. The numbers on the peaks correspond to the numbers of the compounds listed in Table S1.

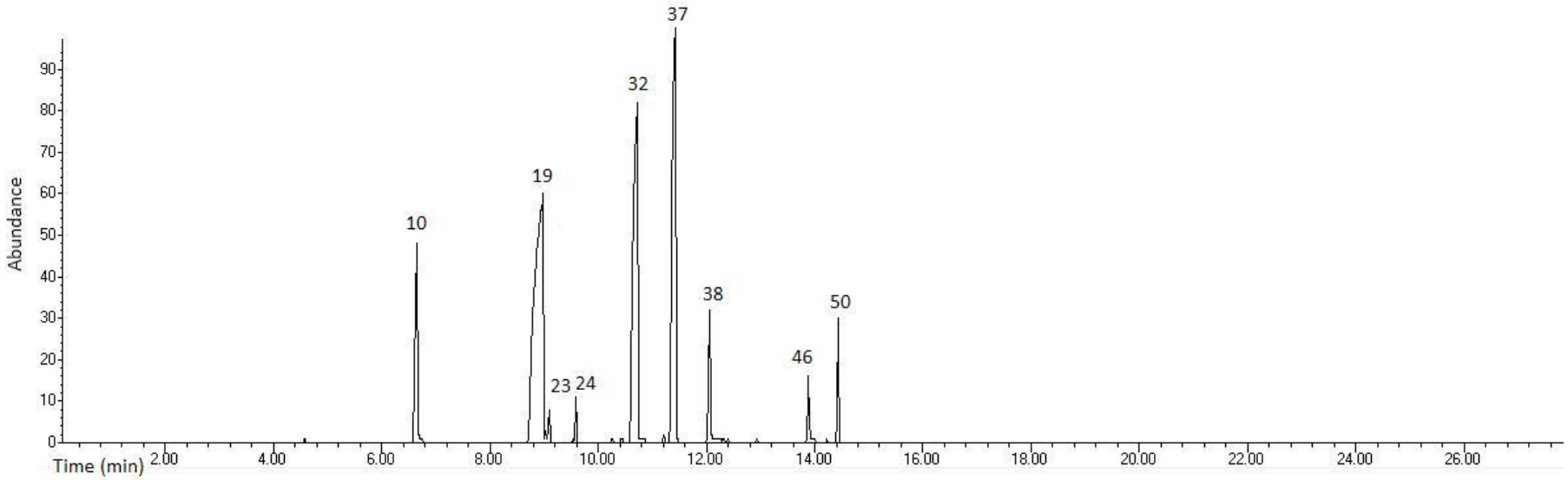

Figure S5. Total ion chromatogram (GC-MS/SPME) of volatile compounds released by a fourth instar nymph of *Phloea subquadrata* after disturbance. Analytical conditions were as follows: initial temperature of 40 °C (3 min) and then heating to 290 °C at 10 °C min^{-1}. The numbers on the peaks correspond to the numbers of the compounds listed in Table S1.

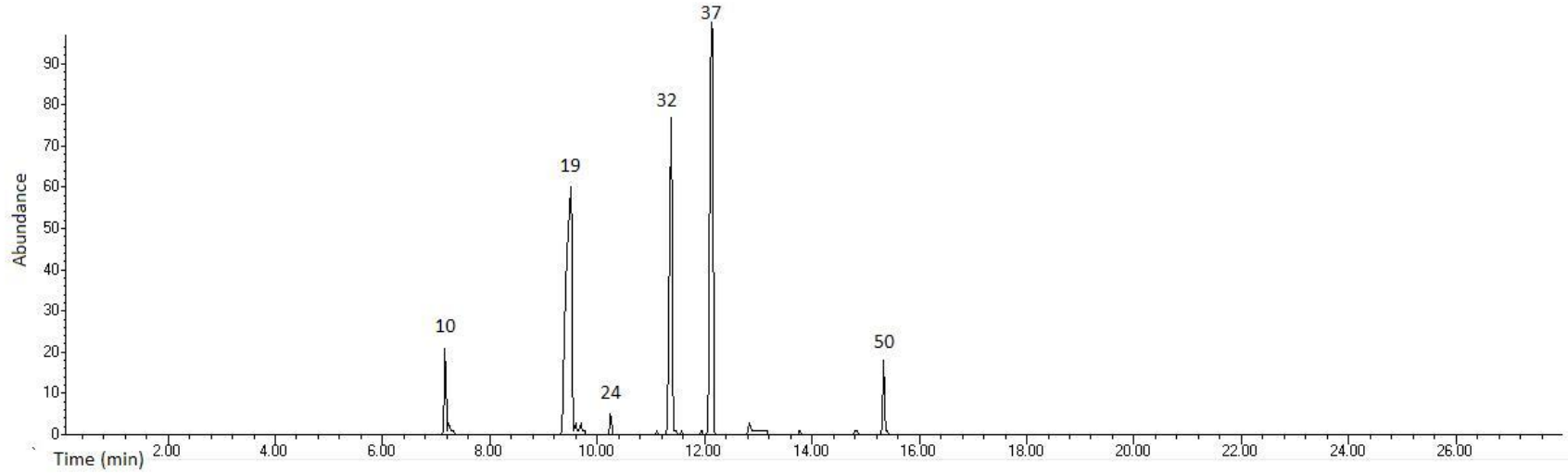

Figure S6. Total ion chromatogram (GC-MS/SPME) of volatile compounds released by a fifth instar nymph of *Phloea subquadrata* after disturbance. Analytical conditions were as follows: initial temperature of 40 °C (3 min) and then heating to 290 °C at 10 °C min^{-1}. The numbers on the peaks correspond to the numbers of the compounds listed in Table S1.

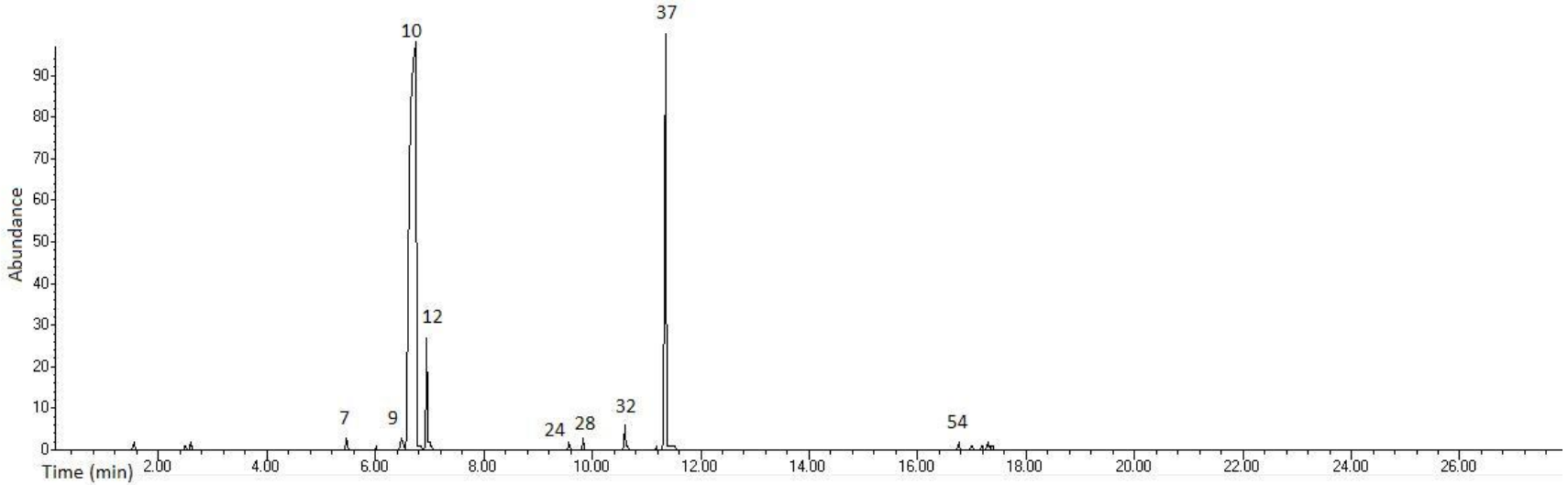

Figure S7. Total ion chromatogram (GC-MS/SPME) of volatiles released by a disturbed female of *Phloeophana longirostris*. Analytical conditions were as follows: initial temperature of 40 °C (3 min) and then heating to 290 °C at 10 °C min^{-1}. The numbers on the peaks correspond to the numbers of the compounds listed in Table S1.

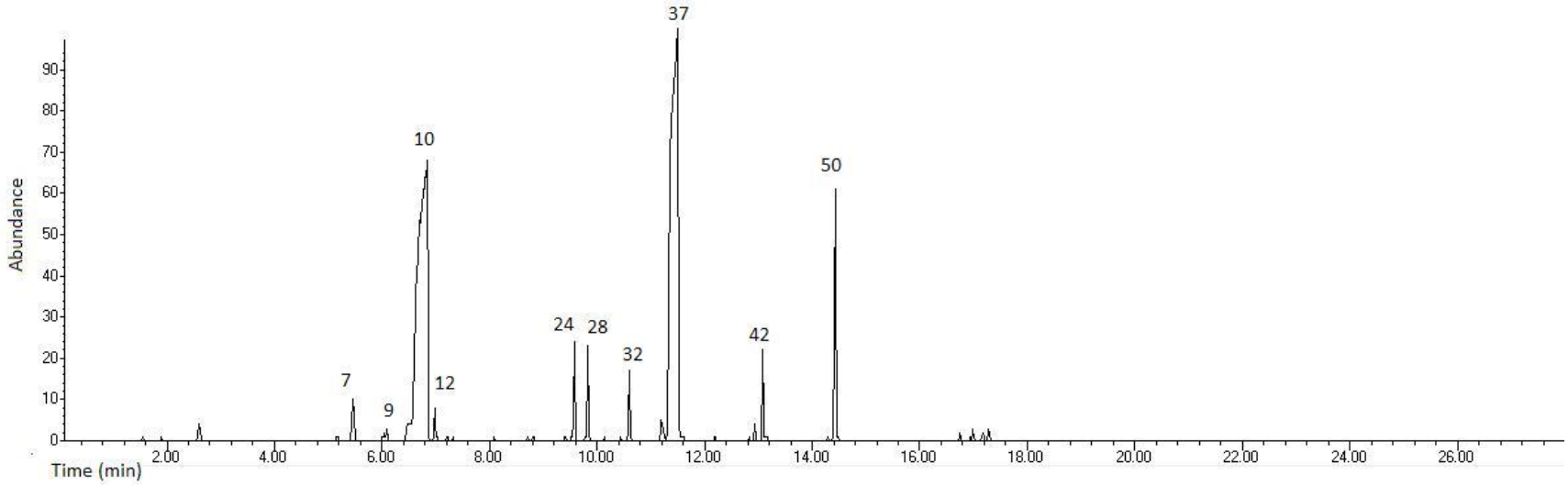

Figure S8. Total ion chromatogram (GC-MS/SPME) of volatiles released by a disturbed male of *Phloeophana longirostris*. Analytical conditions were as follows: initial temperature of 40 °C (3 min) and then heating to 290 °C at 10 °C min^{-1}. The numbers on the peaks correspond to the numbers of the compounds listed in Table S1.

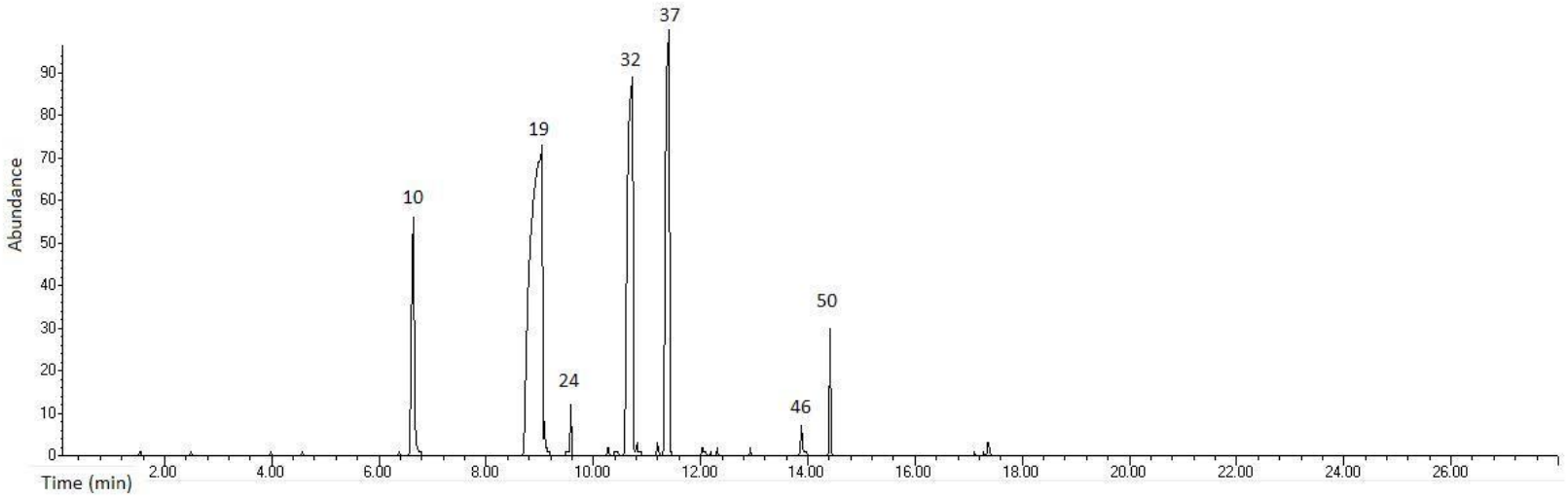

Figure S9. Total ion chromatogram (GC-MS/SPME) of volatiles released by a second instar nymph of *Phloeophana longirostris* when disturbed. Analytical conditions were as follows: initial temperature of 40 °C (3 min) and then heating to 290 °C at 10 °C min^{-1}. The numbers on the peaks correspond to the numbers of the compounds listed in Table S1.

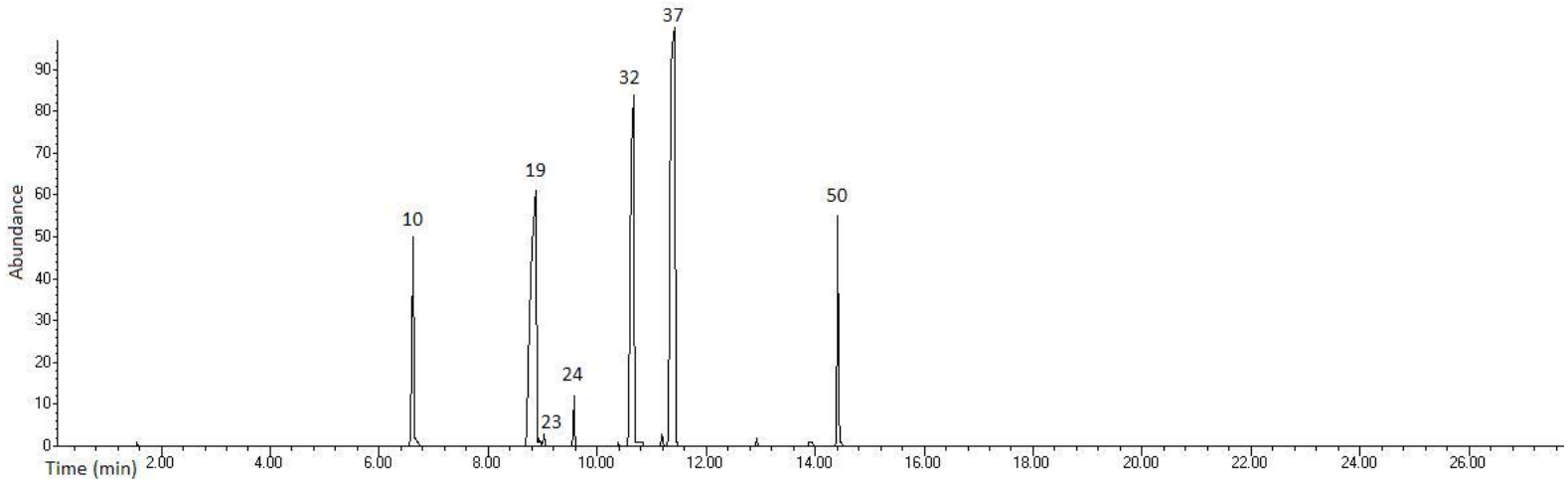

Figure S10. Total ion chromatogram (GC-MS/SPME) of volatiles released by a third instar nymph of *Phloeophana longirostris* when disturbed. Analytical conditions were as follows: initial temperature of 40 °C (3 min) and then heating to 290 °C at 10 °C min^{-1}. The numbers on the peaks correspond to the numbers of the compounds listed in Table S1.

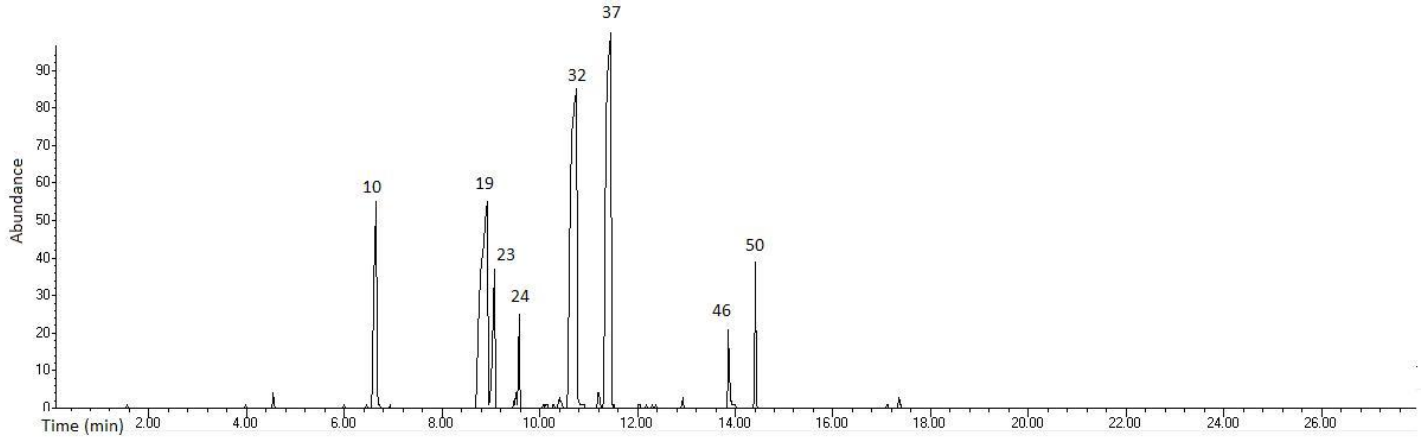

Figure S11. Total ion chromatogram (GC-MS/SPME) of volatiles released by a fourth instar nymph of *Phloeophana longirostris* when disturbed. Analytical conditions were as follows: initial temperature of 40 °C (3 min) and then heating to 290 °C at 10 °C min^{-1}. The numbers on the peaks correspond to the numbers of the compounds listed in Table S1.