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Correction

Correction: Bao, W.; Shen, Y. Dynamic Changes on Floral Aroma Composition of the Three Species from *Tilia* at Different Flowering Stages. *Horticulturae* 2022, *8*, 719

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Text Correction

In the original publication [1], the data of aroma components in Table 2 were not complete. Therefore, we decided to make additional improvements, thus giving a more complete picture of the composition and dynamic changes of the floral aroma in the three species of *Tilia*. This article has been updated at some points as follows:

Abstract—The sentence "47 aroma compounds were preliminarily identified, including terpenes, alcohols, ethers, esters, aldehydes, heterocyclics and alkanes" was replaced with "A total of 70 volatile components were detected, 43 aroma compounds were identified". The content "9 crucial aroma components" was replaced with "14 crucial aroma components".

Results—Subsequent results and points based on data from Table 2 have been updated along with the corresponding figures and tables.

Discussion—The sentence "The three species from *Tilia* were all in the blooming stage when the peak period of fragrance emission as seen by the results" was replaced with "The emissions of major aroma components in the three species of *Tilia* were basically in the blooming stage as seen by the results". The content "9 key floral scent components" was replaced with "14 key floral scent components".

Paragraph in Section 2.5 should be corrected as: Excel (Microsoft Office Standard 2019, Microsoft Corporation, Redmond, WA, USA) was used to calculate the relative content (%) of each aroma component; UpSet diagrams were performed by using the OmicShare tools, a free online platform for data analysis (https://www.omicshare.com/tools), accessed on 5 June 2022; SPSS Statistics 26.0 software (IBM, Armonk, NY, USA) was used for the Kruskal–Wallis non-parametric test; SIMCA 14.1.0.2047 software (Umetrics, Umeå, Sweden) was used for the PLS-DA model, drawing score scatter plot and loading scatter plot, calculation of VIP value and permutation test; Matlab R2021a software (Math Works Corporation, Natick, MA, USA) was used for calculating the aroma similarity rates; aroma characteristics were collected from 'The Good Scents' company network database (www.thegoodscentscompany.com), accessed on 5 January 2022. OriginPro 2021 software (OriginLab Corporation at Northampton, MA, USA) was applied to draw heat map.

Updated tables and figures are shown below:

check for updates

Citation: Bao, W.; Shen, Y. Correction: Bao, W.; Shen, Y. Dynamic Changes on Floral Aroma Composition of the Three Species from *Tilia* at Different Flowering Stages. *Horticulturae* 2022, *8*, 719. *Horticulturae* **2023**, *9*, 286. https://doi.org/10.3390/horticulturae9020286

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Table 2. Aroma components and relative contents in samples of the three species from *Tilia*.

No.	Compounds Name	CAS Number	RI	Relative Content (%)								
				TC-a	TC-b	TC-c	TT-a	TT-b	TT-c	TM-a	TM-b	TM-c
1	NI-1	-	-	-	-	-	3.30	-	-	-	-	-
2	NI-2	-	-	-	-	-	-	-	-	-	0.06	-
3	NI-3	-	-	-	-	-	-	-	-	-	-	0.65
4	NI-4	-	731	-	-	-	-	-	-	0.17	0.20	0.19
5	NI-5	-	749	-	-	-	-	-	-	0.43	-	0.19
6	(1R)-2, 6, 6-Trimethylbicyclo [3.1.1]hept-2-ene	7785-70-8	948	-	-	-	2.41	2.85	4.04	-	-	-
7	β-Myrcene	123-35-3	996	-	-	-	-	2.90	4.40	-	-	-
8	NI-6	-	1004	-	-	-	-	-	-	7.33	5.21	3.62
9	NI-7	-	1011	0.70	0.90	0.99	-	-	-	-	-	-
10	NI-8	-	1013	-	-	-	-	0.83	-	-	-	-
11	α-Phellandrene	99-83-2	1014	-	-	-	-	-	0.32	-	-	-
12	D-Limonene	5989-27-5	1038	-	-	-	19.88	19.04	22.55	0.21	0.31	-
13	trans-β-Ocimene	3779-61-1	1040	0.88	1.03	0.96	-	-	-	-	-	-
14	β-Ocimene	13877-91-3	1052	29.47	34.44	36.90	32.62	32.44	32.68	-	-	-
15	Benzene, 1-methoxy-4-methyl-	104-93-8	1056	-	-	-	-	-	-	-	-	0.19
16	γ-Terpinene	99-85-4	1067	-	-	-	4.80	4.97	5.53	-	-	-
17	Bicyclo [3.1.0]hexan-2-ol, 2-methyl-5-(1-methylethyl)-, (1α,2β,5α)-	15537-55-0	1079	-	-	-	-	0.33	0.36	-	-	-
18	Benzeneacetaldehyde	122-78-1	1088	-	-	-	-	-	-	5.48	6.41	5.40
19	NI-9	-	1090	-	-	-	-	-	-	0.27	0.15	0.15
20	trans-Linalool oxide (furanoid)	34995-77-2	1098	1.55	1.04	0.87	-	-	-	-	-	-
21	Cyclohexene, 1-methyl-4-(1-methylethylidene)-	586-62-9	1099	-	-	-	12.22	12.35	11.39	-	-	-
22	Benzene, (2-methoxyethyl)-	3558-60-9	1102	-	-	-	-	-	-	0.25	0.39	0.43
23	Linalool	78-70-6	1109	14.74	18.73	21.30	-	-	-	-	-	-
24	NI-10	-	1113	-	-	-	-	1.79	-	-	-	-
25	2, 4, 6-Octatriene, 2, 6-dimethyl-	673-84-7	1139	1.56	1.21	1.19	-	-	-	-	-	-
26	NI-11	-	1149	2.22	3.45	3.40	6.79	4.21	5.00	15.17	12.03	9.12
27	Lilac aldehyde (isomer II)	-	1166	-	0.59	0.41	-	-	-	-	-	0.10
28	Phenylethyl Alcohol	60-12-8	1180	-	-	-	7.43	7.17	5.70	0.68	1.59	1.77
29	(3R,6S)-2,2,6-Trimethyl-6-vinyltetrahydro-2H-pyran-3-ol	39028-58-5	1196	0.51	0.34	0.29	-	-	-	-	-	-
30	3-Cyclohexen-1-ol, 4-methyl-1-(1-methylethyl)-, (R)-	20126-76-5	1204	-	-	-	0.35	0.32	0.37	-	-	-
31	Benzoic acid, ethyl ester	93-89-0	1208	-	-	-	0.62	0.94	0.70	-	-	-
32	Benzene, (2-methoxyethenyl)-	4747-15-3	1216	-	-	-	-	-	-	0.13	0.19	0.22
33	NI-12	-	1219	0.73	-	-	-	-	-	-	-	-
34	Estragole	140-67-0	1225	-	-	-	3.96	3.87	2.32	-	-	-
35	Lilac alcohol (isomer III)	-	1228	0.64	0.40	-	-	-	-	-	-	-
36	Lilac alcohol (isomer IV)	-	1241	0.88	0.46	-	-	-	-	-	-	-
37	Lilac alcohol D	33081-37-7	1259	-	-	-	-	-	-	-	-	0.10
38	Acetic acid, 2-phenylethyl ester	103-45-7	1295	-	-	-	0.44	0.50	-	0.16	0.29	0.61
39	Tridecane	629-50-5	1300	-	-	-	-	-	-	-	0.19	-

Table 2. *Cont.*

No.	Compounds Name	CAS Number	RI	Relative Content (%)								
				TC-a	TC-b	TC-c	TT-a	TT-b	TT-c	TM-a	TM-b	TM-c
40	NI-13	-	1301	-	-	-	-	-	-	-	-	0.09
41	NI-14	-	1319	0.83	1.21	1.12	1.95	1.18	1.79	3.61	2.61	2.11
42	NI-15	-	1359	0.84	0.53	0.46	-	-	-	-	-	-
43	α-Cubebene	17699-14-8	1370	0.43	0.34	0.34	-	-	-	-	-	-
44	Aromadendrene	109119-91-7	1409	1.03	0.82	0.85	-	-	-	-	-	-
45	Phenol, 2-methoxy-4-(1-propenyl)-	97-54-1	1434	-	-	-	1.14	2.20	1.00	-	-	-
46	β-Copaene	18252-44-3	1436	4.39	3.02	2.54	-	-	-	-	-	-
47	Methyleugenol	93-15-2	1443	-	-	-	-	-	-	3.71	7.00	10.26
48	NI-16	-	1446	2.57	1.74	1.47	-	-	-	-	-	-
49	(E)-β-Famesene	18794-84-8	1459	-	-	-	-	-	-	0.09	0.11	0.16
50	NI-17	-	1461	1.18	0.86	0.81	-	-	-	-	-	-
51	NI-18	-	1468	-	-	-	-	-	-	0.12	0.11	0.13
52	NI-19	-	1470	1.71	1.16	1.11	-	-	-	-	-	-
53	cis-Muurola-4(15),5-diene	157477-72-0	1479	0.63	0.56	0.50	-	-	-	-	-	-
54	NI-20	-	1489	-	-	-	-	-	-	0.25	0.18	0.18
55	γ-Muurolene	30021-74-0	1491	1.52	1.25	1.11	-	-	-	-	-	-
56	1, 3, 6, 10-Dodecatetraene, 3, 7, 11-trimethyl-, (Z,E)-	26560-14-5	1498	-	-	-	-	-	-	1.23	1.28	1.68
57	Germacrene D	23986-74-5	1501	22.30	18.67	16.83	0.48	0.66	0.90	-	-	-
58	NI-21	-	1511	0.89	0.80	0.84	-	-	-	-	-	-
59	α-Farnesene	502-61-4	1514	-	-	-	0.75	0.93	0.95	58.63	59.35	60.37
60	NI-22	-	1516	1.26	0.96	0.80	-	-	-	-	-	-
61	NI-23	-	1519	1.00	0.62	0.48	-	-	-	-	-	-
62	Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro-7-methyl-4-methylene-1-(1-methylethyl)-, (1α,4aβ,8aα)-	39029-41-9	1533	1.81	1.59	1.45	-	-	-	-	-	-
63	NI-24	-	1535	-	-	-	-	-	-	0.34	0.35	0.36
64	Naphthalene, 1,2,3,5,6,8a-hexahydro-4,7-dimethyl-1-(1-methyl ethyl)-, (1S-cis)-	483-76-1	1539	3.07	2.69	2.44	-	-	-	-	-	-
65	NI-25	-	1550	-	-	-	-	-	-	-	0.06	-
66	Naphthalene, 1,2,4a,5,6,8a-hexahydro-4,7-dimethyl-1-(1-methylethyl)-, [1S-(1α,4aβ,8aα)]-	24406-05-1	1556	0.66	0.59	0.54	-	-	-	-	-	-
67	NI-26	-	1603	-	-	-	-	-	-	0.59	0.62	0.69
68	Benzene, 1,2,3-trimethoxy-5-(2-propenyl)-	487-11-6	1609	-	-	-	-	-	-	0.60	0.76	0.66
69	NI-27	-	1623	-	-	-	-	-	-	0.55	0.55	0.57
70	Benzyl Benzoate	120-51-4	1744	-	-	-	0.86	0.52	-	-	-	-
	Total			100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Note: RT—Retention time; RI—Retention index; NI-Not identified.

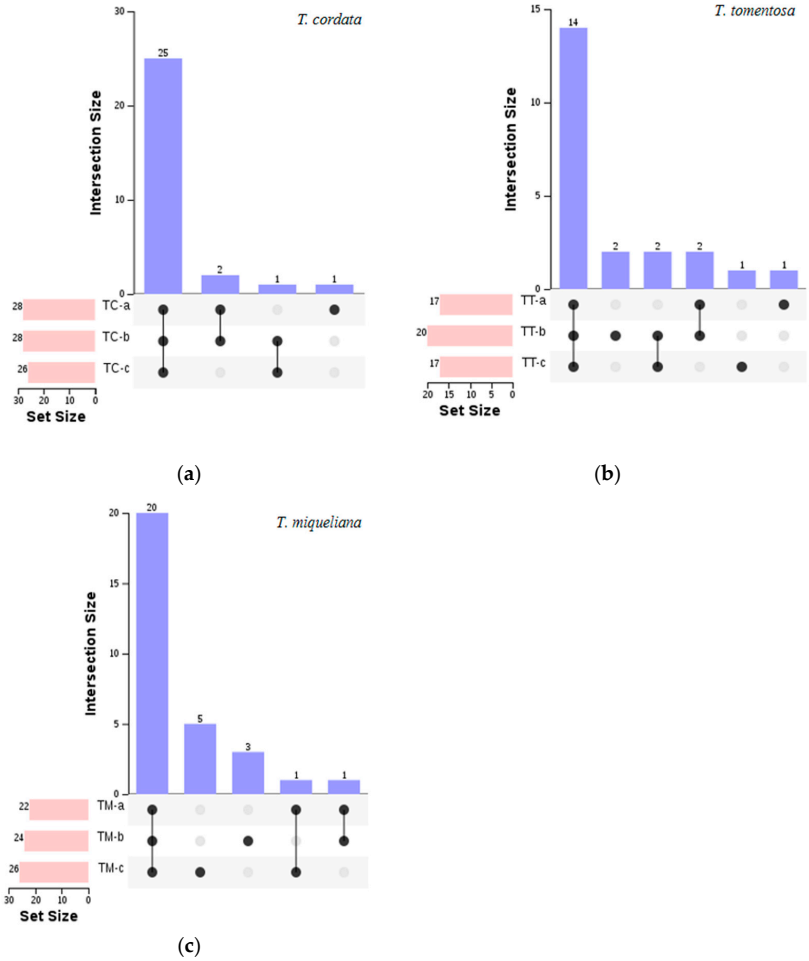

Figure 2. UpSet diagrams based on the aroma components at different flowering stages of the three species. (**a**) *T. cordata*; (**b**) *T. tomentosa*; (**c**) *T. miqueliana*. Note: "set size" represents the dataset of aroma components in each species of *Tilia* at different flowering periods; the horizontal bar chart on the left represents the statistical value of floral fragrance components in each period; the single point of the intermediate matrix represents the existence of unique aroma components in a certain period, and 2 or 3 points are connected by lines to represent the unique components with intersection of multiple periods; the numbers at the top of the vertical bars represent the values of the unique aroma components at the intersection points at different periods.

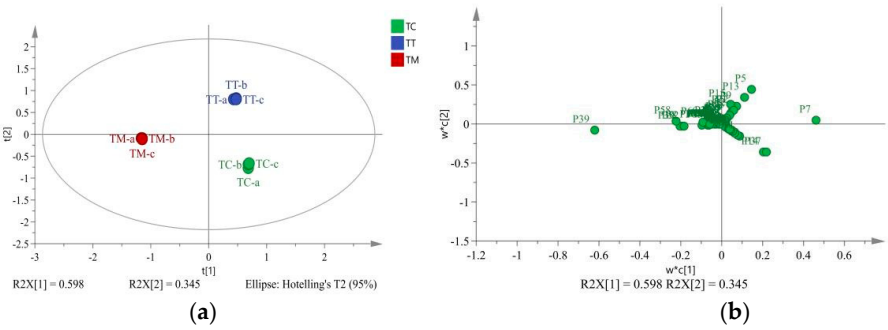

Figure 3. PLS-DA model for aroma components at different stages of the three species. (**a**) Score scatter plot; (**b**) Loading scatter plot.

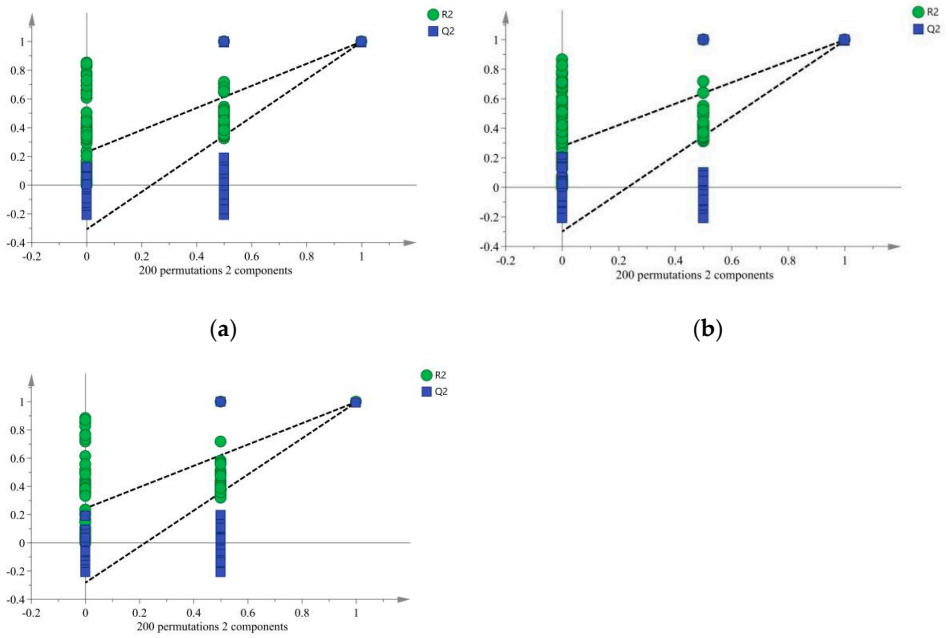

Figure 4. Permutation test of PLS-DA model. (**a**) *T. cordata*; (**b**) *T. miqueliana*; (**c**) *T. tomentosa*.

Table 3. Characteristics of the 14 crucial components in the PLS-DA model.

No.	Components Name	VIP	*p*-Value	Aroma Characteristics
1	α-Farnesene	3.70	0.02	Citrus, herbal, lavender
2	D-Limonene	2.76	0.03	Citrus, orange
3	Germacrene D	2.50	0.02	Woody, spice
4	Linalool	2.47	0.02	Citrus, woody, floral
5	Cyclohexene, 1-methyl-4-(1-methylethylidene)-	2.11	0.02	Citrus, woody
6	Phenylethyl Alcohol	1.55	0.02	floral, rose
7	γ-Terpinene	1.38	0.02	Oily, woody, lemon
8	NI-11	1.33	0.03	-
9	Methyleugenol	1.21	0.02	Spicy, cinnamon, clove
10	Benzeneacetaldehyde	1.16	0.02	Honey, floral, cocoa
11	Estragole	1.10	0.02	Spice, herbal,anise
12	NI-6	1.09	0.02	-
13	(1R)-2,6,6-Trimethylbicyclo[3.1.1]hept-2-ene	1.06	0.02	Terpene, aromatic, minty
14	β-Copaene	1.04	0.02	-

VIP: variable importance in projection.

Table 4. Aroma similarity rates between the three species of *Tilia* at different flowering stages.

	TC-a	TC-b	TC-c	TT-a	TT-b	TT-c	TM-a	TM-b	TM-c
TC-a	1.000	0.986	0.972	0.578	0.585	0.572	0.015	0.012	0.009
TC-b		1.000	0.997	0.626	0.631	0.616	0.021	0.016	0.012
TC-c			1.000	0.635	0.641	0.625	0.020	0.015	0.012
TT-a				1.000	0.991	0.986	0.063	0.058	0.048
TT-b					1.000	0.993	0.052	0.050	0.043
TT-c						1.000	0.056	0.052	0.044
TM-a							1.000	0.996	0.987
TM-b								1.000	0.997
TM-c									1.000

Note: The closer clustering relationship is, the aroma similarity rate draws nearer to 1.000.

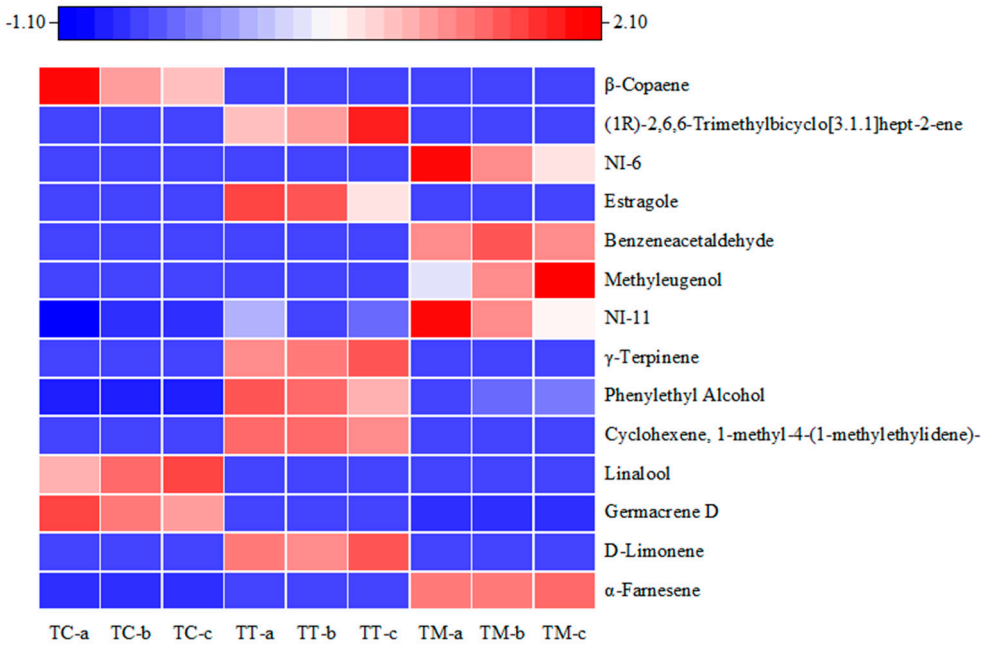

Figure 5. Heat map of content distributions about 14 crucial components in the three species from *Tilia*.

We have revised all affected figures and tables as well as values reported in the main text in the corrected article. The authors apologize for any inconvenience caused and state that the scientific conclusions are unaffected. This correction was approved by the Academic Editor. The original publication has also been updated.

Reference

1. Bao, W.; Shen, Y. Dynamic Changes on Floral Aroma Composition of the Three Species from *Tilia* at Different Flowering Stages. *Horticulturae* **2022**, *8*, 719. [CrossRef]