

Table S1. Detailed information on the *Cinnamomum* samples used in the study.

Sample no.	Species	Collected location	Collected year
1	<i>C. verum</i>	Uswetakeyyawa Wattala, Sri Lanka	2018
2		Dambulla, Sri Lanka	2020
3		Dambulla, Sri Lanka	2020
4		Kerala, India	2018
5		Kerala, India	2018
6		Kerala, India	2018
7	<i>C. burmannii</i>	East Java, Indonesia	2019
8		East Java, Indonesia	2019
9		East Java, Indonesia	2018
10		East Java, Indonesia	2018
11		South Jakarta, Indonesia	2019
12		South Jakarta, Indonesia	2019
13	<i>C. loureiroi</i>	Vietnam	2019
14		Vietnam	2019
15		Ho Chi Minh City, Vietnam	2018
16		Ho Chi Minh City, Vietnam	2020
17	<i>C. cassia</i>	Tainan, Taiwan	2018
18		Tainan, Taiwan	2018
19		Tainan, Taiwan	2019
20		Tainan, Taiwan	2019

Table S2. Independent samples *t*-test results of the nine selected discriminative physico-functional variables.

Variables	<i>Cinnamomum</i> species											
	Group 1						Group 2					
	<i>C. verum</i>		<i>C. burmannii</i>		<i>t</i> -test results		<i>C. loureiroi</i>		<i>C. cassia</i>		<i>t</i> -test results	
	Mean	SD	Mean	SD	<i>t</i>	<i>p</i>	Mean	SD	Mean	SD	<i>t</i>	<i>p</i>
BD	0.35	0.02	0.45	0.05	-10.557	0.000	0.34	0.01	0.33	0.02	3.376	0.002
True density	1.51	0.00	1.49	0.01	15.704	0.000	1.48	0.01	1.46	0.02	2.746	0.010
Porosity	76.49	1.01	69.76	3.58	10.845	0.000	76.71	0.73	77.40	1.01	-2.746	0.009
pH	4.73	0.24	4.90	0.10	-3.914	0.000	4.93	0.09	5.04	0.17	-2.731	0.010
Moisture content	9.89	0.44	11.15	0.40	-12.719	0.000	10.80	0.50	11.63	0.67	-4.870	0.000
Color	3.85	0.78	7.89	1.14	-17.496	0.000	5.76	0.58	3.28	0.36	17.873	0.000
WAI	3.78	0.20	5.18	0.82	-10.002	0.000	3.09	0.17	2.93	0.19	2.873	0.006
WSI	5.61	1.90	7.89	2.66	-4.184	0.000	8.63	0.44	7.83	1.12	3.257	0.003
SP	4.56	0.17	8.93	2.02	-12.908	0.000	3.53	0.25	3.05	0.19	7.465	0.000

The significant ($p < 0.05$) physico-functional variables were selected based on selected two groups [(CV and CB) \cap (CL and CC)].

BD: bulk density; WAI: water absorption index; WSI: water solubility index; SP: swelling power.

Table S3. MANOVA results of *Cinnamomum* species using nine physico-functional variables.

Test	Value	F- value	Hypothesis df	Error df	p-value
Pillai's trace	2.45	54.65	27	330	0.000
Wilks' Λ	0.00	84.52	27	316.06	0.000
Hotelling's trace	27.45	108.44	27	320	0.000
Roy's largest root	15.72	192.12	9	110	0.000

Wilks' Λ : Wilks' lambda

Table S4. Total variance explained and principal component loading matrix.

	Principal components		
	PC1	PC2	PC3
<i>Total Variance explained</i>			
Eigenvalue	4.20	1.93	1.22
% Variance	46.69	21.49	13.51
Cumulative %	46.69	68.18	81.70
<i>Variable loading</i>			
BD	0.94	0.06	-0.21
True density	0.18	-0.82	-0.20
Porosity	-0.93	-0.13	0.19
pH	-0.01	0.61	-0.07
Moisture content	0.15	0.88	0.17
Color	0.88	0.08	0.29
WAI	0.91	-0.20	-0.08
WSI	-0.01	0.61	0.96
SP	0.90	-0.13	0.22

The high loadings are in bold.

BD: bulk density; WAI: water absorption index; WSI: water solubility index; SP: swelling power.

Table S5. Stepwise DA characteristics of *Cinnamomum* species using nine physico-functional variables.

DF	Eigenvalue	% Variance	Cumulative %	Canonical correlation	Wilks' Λ	χ^2 value	df	p-value
1	10.89	60.30	60.30	0.96	0.10	443.66	9	0.000
2	7.08	39.20	99.50	0.94	0.11	207.26	4	0.000
3	0.09	0.50	100.00	0.28	0.92	7.78	1	0.005

DF: discriminant function; df: degree of freedom; Wilks' Λ : Wilks' lambda; χ^2 : Chi-square.

Table S6. Prediction result of the testing set by the MDA model.

Sample	Actual species	Values of linear discriminant functions				Predicted species
		CV	CB	CL	CC	
1	CV	9.88	-22.41	-9.26	-23.18	CV
2	CV	8.29	-22.74	-8.54	-20.89	CV
3	CV	11.33	-24.77	-8.96	-22.12	CV
4	CV	12.34	-29.65	-8.06	-17.08	CV
5	CV	7.54	-24.28	-7.74	-18.13	CV
6	CV	9.60	-29.81	-6.74	-13.86	CV
7	CB	-21.49	15.58	-11.76	-29.84	CB
8	CB	-32.68	15.20	-5.71	-17.79	CB
9	CB	-19.27	-2.51	-4.44	-12.85	CB
10	CB	-17.57	5.45	-9.08	-23.10	CB
11	CB	-21.46	15.22	-13.08	-27.98	CB
12	CB	-17.99	8.68	-11.42	-25.03	CB
13	CL	-7.67	-19.76	-1.83	-7.15	CL
14	CL	-13.39	-17.11	-0.15	-3.93	CL
15	CL	-8.99	-17.42	-2.15	-8.36	CL
16	CL	-12.56	-18.45	0.04	-3.36	CL
17	CC	-22.11	-20.02	5.42	8.65	CC
18	CC	-17.02	-21.57	3.51	4.96	CC
19	CC	-15.31	-26.46	4.71	8.59	CC
20	CC	-33.88	-18.32	10.68	19.20	CC

The functions with larger values are in bold.