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APPENDICES

APPENDICES

A. Preparation of chemicals for molecular assay

1.) 10X TBE

Tris.base	108 g.
Boric acid	55 g.
0.5M EDTA (pH8.0)	40 ml.
distilled water	up to 1 l.

2.) 6x loading dye

Bromophenol blue,	25 mg.
Glycerol	4 ml.
IX TBE	up to 10 ml.

B. Preparation of chemicals for cytogenetic assay

1.) 4% Pectinase

Pectinase powder (prepared from *Rhizopus* sp.)	1.2 g.
Distilled water	30 ml.

2.) 5% Cellulase

Cellulase powder (prepared from *Trichoderma viridis*)	1.5 g.
Distilled water	30 ml.

3.) Aceto-carmine

Carmine powder	0.5 g.
Glacial acetic	45 ml.
Distilled water	65 ml.

4.) α-bromonaphthaline

α-bromonaphthaline solution	2 ml.
Distilled water	498 ml.

5.) Farmer's solution

Glacial acetic acid	75 ml.
95% Ethanol	25 ml.

6.) 2% propionocarmine

carmine powder	2 g.
45% propionic acid	100 ml.

C. sequence length (bp) and %GC content of *trn*L intron and ITS1-5.8S-ITS2 sequence of *Cassia* in Thailand (in this study)

	***trn*L intron sequence**		**ITS1-5.8S-ITS2 sequence**	
	Sequence length (bp)	**%GC (%)**	**Sequence length (bp)**	**%GC (%)**
C. alata L.	570	35.79	651	61.44
C. bakeriana Craib	570	36.14	674	62.31
C. fistula L.	573	35.78	668	59.73
C. garrettiana Craib	585	36.75	-	-
C. grandis L. f.	548	35.95	560	51.61
C. hirsuta L.	594	35.35	650	60.77
C. javanica L. var. *javanica*	556	35.61	671	63.34
C. leschenaultiana DC.	607	35.58	-	-
C. timoriensis DC.	570	36.32	654	53.21
C. obtusifolia L.	568	36.80	629	58.51
C. occidentalis L.	590	35.08	651	61.14
C. pumila Lamk.	568	34.68	-	-
C. sophera L.	571	35.03	650	60.31
C. spectabilis DC.	551	35.03	650	62.46
C. surattensis Burm. f.	556	35.79	650	59.08
C. tora L.	552	35.87	630	58.57

D. Nine species from GenBank database added to the analyses in this M.Sc. thesis

		GenBank accession number	Sequence length (bp)
Cassia	*C. grandis*	AF365092	474
Senna	*S. crassiramea*	AF365090	569
	S.lindheimeriana	AF365089	575
	S.bauhinioides	AF365087	580
	S. wislizeni	AF365028	558
	S. bacillaris	AF365031	549
Chamaecrista	*Ch. nictitans*	AF365093	562
	Ch. sp. Klitgaad	AF365093	562
	Ch. sp. Breteler	AF365094	563

	G. dioica	Ce. siliqua	Ch. nict.	Ch. Klit.	Ch. Bret	C. les.	C. pum.	S. cras.	S. lind.	S. bau.	S. wis.	S. bac.	C. gra. GB	C. gra. Th.	C. fist.	C. java.	C. spec.	C. bake.	C. soph.	C. hirs.	C. occi.	C. obtu.	C. tora	C. sura.	C. alata	c. timo.	C. garr.
G. dioica	1.000																									
Ce. siliqua	0.013	1.000																								
Ch.nict.	0.029	0.012	1.000																							
Ch. Klit.	0.029		0.000	1.000																						
Ch. Bret	0.033	0.017	0.018	0.018	1.000																					
C. les.	0.029	0.012	0.002	0.002	0.018	1.000																				
C. pum.	0.029	0.012	0.002	0.002	0.018	0.000	1.000																			
S. cras.	0.027	0.023	0.030	0.030	0.032	0.030	0.030	1.000																		
S. lind.	0.029	0.022	0.032	0.032	0.034	0.032	0.032	0.014	1.000																	
S. bau.	0.029	0.022	0.032	0.032	0.034	0.032	0.032	0.014	0.000	1.000																
S. wis.	0.029	0.025	0.032	0.032	0.034	0.032	0.032	0.014	0.012	0.012	1.000															
S. bac.	0.037	0.030	0.044	0.044	0.046	0.044	0.044	0.028	0.030	0.030	0.030	1.000														
C. gra.GB	0.027	0.022	0.032	0.032	0.034	0.032	0.032	0.017	0.015	0.015	0.013	0.035	1.000													
C. gra. Th.	0.023	0.018	0.028	0.028	0.030	0.028	0.028	0.014	0.012	0.012	0.012	0.030	0.006													
C. fist.	0.023	0.018	0.026	0.026	0.028	0.026	0.026	0.012	0.010	0.010	0.010	0.028	0.009	0.006	1.000											
C. java.	0.023	0.018	0.026	0.026	0.028	0.026	0.026	0.012	0.010	0.010	0.010	0.028	0.009	0.006	0.004	1.000										
C. spec.	0.037	0.030	0.038	0.038	0.042	0.038	0.038	0.018	0.020	0.020	0.012	0.030	0.024	0.020	0.018	0.014	1.000									
C. bake.	0.023	0.018	0.026	0.026	0.028	0.026	0.026	0.012	0.010	0.010	0.010	0.028	0.009	0.006	0.004	0.000	0.014	1.000								
C. soph.	0.035	0.030	0.038	0.038	0.040	0.038	0.038	0.020	0.013	0.013	0.018	0.036	0.019	0.018	0.016	0.014	0.024	0.014	1.000							
C. hirs.	0.029	0.022	0.034	0.034	0.036	0.034	0.034	0.016	0.012	0.011	0.014	0.030	0.017	0.014	0.012	0.012	0.022	0.012	0.010	1.000						
C. occi.	0.033	0.027	0.034	0.034	0.038	0.034	0.034	0.018	0.012	0.012	0.016	0.034	0.017	0.016	0.014	0.012	0.022	0.012	0.006	0.008	1.000					
C. obtu	0.027	0.020	0.030	0.030	0.032	0.030	0.030	0.014	0.016	0.016	0.016	0.014	0.019	0.016	0.014	0.014	0.024	0.014	0.022	0.016	0.020	1.000				
C. tora	0.027	0.020	0.030	0.030	0.032	0.030	0.030	0.014	0.016	0.016	0.016	0.014	0.019	0.016	0.014	0.014	0.024	0.014	0.022	0.016	0.020	0.000	1.000			
C. sura.	0.033	0.028	0.034	0.034	0.036	0.034	0.034	0.014	0.020	0.020	0.020	0.022	0.024	0.020	0.018	0.018	0.018	0.018	0.026	0.022	0.024	0.008	0.008	1.000		
C. alata	0.025	0.017	0.026	0.026	0.028	0.026	0.026	0.008	0.010	0.010	0.010	0.024	0.013	0.010	0.008	0.008	0.018	0.008	0.016	0.012	0.014	0.010	0.010	0.014	1.000	
c. timo.	0.033	0.028	0.035	0.035	0.038	0.035	0.035	0.018	0.020	0.020	0.020	0.035	0.024	0.020	0.018	0.018	0.029	0.018	0.026	0.022	0.025	0.020	0.020	0.024	0.014	1.000
C. garr.	0.027	0.020	0.026	0.026	0.030	0.026	0.026	0.012	0.014	0.014	0.014	0.028	0.017	0.014	0.012	0.012	0.022	0.012	0.020	0.016	0.018	0.014	0.014	0.018	0.008	0.010

F. Distance matrix of *trn*L intron sequence data of 16 Thai *Cassia* species and 9 Cassiinae from GenBank with two outgroups as previous data.

	G. dioica	*Ce. siliqua*	*C. lesch-enault-iana*	*C. pumila*	*C. alata*	*C. timori-ensis*	*C. spect-abilis*	*C. occide-ntalis*	*C. sophera*	*C. hirsuta*	*C. obtusi-folia*	*C. tora*	*C. surat-tensis*	*C. grandis*	*C. fistula*	*C. bakeri-ana*	*C. javanica*	*C. garret-tiana*
G. dioica	1.000																	
Ce. siliqua	0.011	1.000																
C. leschenault-iana	0.029	0.014	1.000															
C. pumila	0.029	0.014	0.000	1.000														
C. alata	0.019	0.016	0.026	0.026	1.000													
C. timoriensis	0.029	0.025	0.034	0.034	0.013	1.000												
C. spectabilis	0.033	0.027	0.037	0.037	0.017	0.026	1.000											
C. occidentalis	0.033	0.027	0.037	0.037	0.017	0.026	0.024	1.000										
C. sophera	0.033	0.030	0.039	0.039	0.017	0.026	0.024	0.007	1.000									
C. hirsuta	0.029	0.025	0.035	0.035	0.013	0.023	0.023	0.009	0.009	1.000								
C. obtusifolia	0.025	0.021	0.030	0.030	0.009	0.019	0.022	0.022	0.022	0.017	1.000							
C. tora	0.025	0.020	0.030	0.030	0.009	0.019	0.022	0.022	0.022	0.017	0.000	1.000						
C. surattensis	0.033	0.030	0.037	0.037	0.017	0.026	0.030	0.030	0.030	0.026	0.011	0.011	1.000					
C. grandis	0.021	0.018	0.028	0.028	0.009	0.019	0.019	0.019	0.019	0.015	0.015	0.015	0.022	1.000				
C. fistula	0.019	0.016	0.026	0.026	0.007	0.017	0.017	0.017	0.017	0.013	0.013	0.013	0.020	0.006	1.000			
C. bakeriana	0.019	0.016	0.026	0.026	0.007	0.017	0.013	0.015	0.015	0.013	0.013	0.013	0.020	0.006	0.004	1.000		
C. javanica	0.019	0.016	0.026	0.026	0.007	0.017	0.013	0.015	0.015	0.013	0.013	0.013	0.020	0.006	0.004	0.000	1.000	
C. garrettiana	0.023	0.018	0.026	0.026	0.008	0.009	0.021	0.021	0.021	0.017	0.013	0.013	0.021	0.013	0.011	0.011	0.011	1.000

E. Distance matrix of *trn*L intron sequence data of 16 Thai *Cassia* species and two outgroups *Gymnocladus dioica* and *Ceratonia siliqua*

	G. dioica	*Ce. siliqua*	*C. alata*	*C. timori-ensis*	*C. spect-abilis*	*C. occide-ntalis*	*C. sopher a*	*C. hirsuta*	*C. obtusi-folia*	*C. tora*	*C. suratt-ensis*	*C. grandis*	*C. fistula*	*C. bakeri-ana*	*C. javanica*
G. dioica	1.000														
Ce. siliqua	0.263	1.000													
C. alata	0.233	0.292	1.000												
C. timoriensis	0.272	0.300	0.167	1.000											
C. spectabilis	0.244	0.306	0.163	0.206	1.000										
C. occidentalis	0.241	0.301	0.152	0.184	0.184	1.000									
C. sophera	0.239	0.304	0.149	0.181	0.182	0.018	1.000								
C. hirsuta	0.248	0.296	0.148	0.188	0.184	0.023	0.029	1.000							
C. obtusifolia	0.261	0.320	0.177	0.221	0.213	0.172	0.175	0.170	1.000						
C. tora	0.261	0.319	0.177	0.221	0.213	0.172	0.175	0.170	0.000	1.000					
C. surattensis	0.266	0.317	0.195	0.223	0.226	0.160	0.164	0.158	0.155	0.155	1.000				
C. grandis	0.335	0.368	0.296	0.328	0.326	0.307	0.308	0.308	0.316	0.316	0.333	1.000			
C. fistula	0.300	0.362	0.294	0.319	0.288	0.276	0.276	0.279	0.314	0.313	0.318	0.181	1.000		
C. bakeriana	0.284	0.350	0.288	0.321	0.291	0.279	0.278	0.284	0.306	0.306	0.307	0.181	0.138	1.000	
C. javanica	0.284	0.350	0.278	0.318	0.284	0.274	0.273	0.278	0.303	0.302	0.299	0.191	0.144	0.039	1.000

G. Distance matrix of ITS regions sequence data of 13 Thai *Cassia* species and two outgroups *Gymnocladus dioica* and *Ceratonia siliqua*

	G. dioica	*Ce. siliqua*	*C. alata*	*C. timori-ensis*	*C. spect-abilis*	*C. occide-ntalis*	*C. sopher a*	*C. hirsuta*	*C. obtusi-folia*	*C. tora*	*C. suratt-ensis*	*C. grandis*	*C. fistula*	*C. bakeri-ana*	*C. javanica*
G. dioica	1.000														
Ce. siliqua	0.156	1.0000													
C. alata	0.135	0.174	1.0000												
C. timoriensis	0.161	0.183	0.098	1.0000											
C. spectabilis	0.148	0.187	0.097	0.125	1.0000										
C. occidentalis	0.	0.184	0.090	0.113	0.112	1.0000									
C. sophera	0.145	0.187	0.089	0.111	0.111	0.013	1.0000								
C. hirsuta	0.148	0.180	0.087	0.113	0.111	0.017	0.020	1.0000							
C. obtusifolia	0.152	0.191	0.100	0.129	0.125	0.103	0.105	0.100	1.0000						
C. tora	0.152	0.191	0.100	0.128	0.125	0.103	0.105	0.100	0.000	1.0000					
C. surattensis	0.158	0.194	0.113	0.134	0.137	0.100	0.103	0.098	0.089	0.089	1.0000				
C. grandis	0.178	0.203	0.154	0.176	0.175	0.164	0.164	0.163	0.164	0.164	0.179	1.0000			
C. fistula	0.170	0.213	0.163	0.182	0.164	0.157	0.158	0.158	0.174	0.174	0.181	0.095	1.0000		
C. bakeriana	0.161	0.205	0.159	0.183	0.164	0.159	0.158	0.161	0.170	0.170	0.176	0.096	0.078	1.0000	
C. javanica	0.161	0.205	0.154	0.181	0.160	0.156	0.155	0.157	0.168	0.168	0.171	0.101	0.081	0.022	1.0000

H. Distance matrix of combined data of 13 Thai *Cassia* species and two outgroups *Gymnocladus dioica* and *Ceratonia siliqua*

	G. dioica	*Ce. siliqua*	*C. lesch-enault-iana*	*C. pumila*	*C. alata*	*C. timori-ensis*	*C. spect-abilis*	*C. occide-ntalis*	*C. sopher a*	*C. hirsuta*	*C. obtusi-folia*	*C. tora*	*C. suratt-ensis*	*C. grandis*	*C. fistula*	*C. bakeri-ana*	*C. javanica*	*C. garret-tiana*
G. dioica	1.000																	
Ce. siliqua	0.832	1.000																
C. leschenault-iana	0.864	0.747	1.000															
C. pumila	0.924	0.799	0.935	1.000														
C. alata	0.916	0.784	0.896	0.937	1.000													
C. timoriensis	0.917	0.784	0.906	0.924	0.936	1.000												
C. spectabilis	0.922	0.791	0.869	0.929	0.940	0.913	1.000											
C. occidentalis	0.878	0.754	0.866	0.902	0.932	0.898	0.905	1.000										
C. sophera	0.877	0.750	0.833	0.888	0.900	0.873	0.908	0.954	1.000									
C. hirsuta	0.878	0.750	0.872	0.895	0.894	0.908	0.904	0.945	0.946	1.000								
C. obtusifolia	0.901	0.766	0.888	0.919	0.953	0.918	0.918	0.909	0.879	0.878	1.000							
C. tora	0.932	0.794	0.876	0.936	0.942	0.922	0.944	0.905	0.905	0.904	0.966	1.000						
C. surattensis	0.907	0.771	0.861	0.919	0.932	0.902	0.932	0.896	0.900	0.900	0.944	0.964	1.000					
C. grandis	0.924	0.790	0.871	0.931	0.942	0.913	0.949	0.906	0.940	0.904	0.918	0.946	0.932	1.000				
C fistula	0.911	0.780	0.903	0.936	0.963	0.928	0.940	0.930	0.902	0.894	0.944	0.934	0.924	0.945	1.000			
C. bakeriana	0.926	0.794	0.909	0.951	0.975	0.943	0.949	0.942	0.907	0.905	0.951	0.949	0.932	0.949	0.975	1.000		
C. javanica	0.932	0.798	0.886	0.947	0.952	0.925	0.976	0.918	0.922	0.917	0.928	0.955	0.946	0.966	0.961	0.971	1.000	
C. garrettiana	0.899	0.769	0.924	0.907	0.924	0.965	0.895	0.887	0.856	0.897	0.906	0.903	0.884	0.895	0.919	0.930	0.907	1.000

I. Similarity index of *trn*L intron sequence data of 16 Thai *Cassia* species and two outgroups *Gymnocladus dioica* and *Ceratonia siliqua*

	G. dioica	Ce. siliqua	Ch. nict.	Ch. Klit.	Ch. Bret	C. les.	C. pum.	S. cras.	S. lind.	S. bau.	S. wis.	S. bac.	C. gra. GB	C. gra. Th.	C. fist.	C. java.	C. spec.	C. bake.	C. soph.	C. hirs.	C. occi.	C. obtu.	C. tora	C. sura.	C. alata	c. timo.	C. garr.
G. dioica	1.000																									
Ce. siliqua	0.471	1.000																								
Ch.nict.	0.453	0.419	1.000																							
Ch. Klit.	0.453	0.419	1.000	1.000																						
Ch. Bret	0.557	0.476	0.465	0.465	1.000																					
C. les.	0.253	0.240	0.235	0.235	0.275	1.000																				
C. pum.	0.269	0.227	0.316	0.316	0.281	0.253	1.000																			
S. cras.	0.558	0.472	0.497	0.497	0.574	0.245	0.298	1.000																		
S. lind.	0.467	0.400	0.457	0.457	0.460	0.243	0.269	0.469	1.000																	
S. bau.	0.456	0.425	0.639	0.639	0.467	0.257	0.377	0.489	0.468	1.000																
S. wis.	0.605	0.456	0.473	0.473	0.600	0.238	0.288	0.586	0.610	0.456	1.000															
S. bac.	0.621	0.473	0.446	0.446	0.564	0.260	0.283	0.576	0.462	0.465	0.609	1.000														
C. gra.GB	0.228	0.227	0.192	0.192	0.202	0.230	0.205	0.205	0.220	0.198	0.211	0.229	1.000													
C. gra. Th.	0.265	0.234	0.231	0.231	0.250	0.228	0.260	0.244	0.276	0.232	0.286	0.282	0.257	1.000												
C. fist.	0.244	0.220	0.269	0.269	0.293	0.265	0.279	0.263	0.311	0.275	0.286	0.269	0.225	0.263	1.000											
C. java.	0.309	0.260	0.295	0.295	0.330	0.258	0.267	0.309	0.292	0.287	0.313	0.323	0.255	0.276	0.250	1.000										
C. spec.	0.448	0.343	0.313	0.313	0.447	0.255	0.260	0.416	0.335	0.324	0.467	0.540	0.234	0.304	0.276	0.447	1.000									
C. bake.	0.273	0.229	0.273	0.273	0.271	0.245	0.282	0.295	0.269	0.265	0.249	0.228	0.212	0.254	0.255	0.259	0.257	1.000								
C. soph.	0.245	0.232	0.269	0.273	0.281	0.276	0.353	0.286	0.245	0.267	0.250	0.276	0.204	0.309	0.297	0.262	0.295	0.304	1.000							
C. hirs.	0.264	0.269	0.316	0.316	0.437	0.286	0.237	0.273	0.311	0.304	0.313	0.284	0.220	0.260	0.382	0.446	0.452	0.267	0.264	1.000						
C. occi.	0.244	0.218	0.294	0.294	0.262	0.275	0.291	0.282	0.279	0.283	0.252	0.237	0.198	0.259	0.303	0.262	0.211	0.323	0.264	0.254	1.000					
C. obtu	0.262	0.218	0.262	0.262	0.276	0.243	0.271	0.483	0.264	0.236	0.275	0.276	0.245	0.275	0.251	0.303	0.264	0.292	0.271	0.254	0.274	1.000				
C. tora	0.597	0.472	0.434	0.434	0.595	0.257	0.265	0.594	0.462	0.439	0.621	0.644	0.210	0.275	0.269	0.397	0.492	0.278	0.273	0.303	0.222	0.261	1.000			
C. sura.	0.273	0.245	0.329	0.329	0.294	0.245	0.255	0.304	0.358	0.289	0.519	0.293	0.237	0.293	0.286	0.485	0.439	0.294	0.253	0.442	0.269	0.275	0.297	1.000		
C. alata	0.233	0.238	0.254	0.254	0.263	0.250	0.292	0.373	0.248	0.270	0.249	0.256	0.214	0.273	0.319	0.278	0.257	0.463	0.441	0.291	0.298	0.287	0.261	0.303	1.000	
c. timo.	0.259	0.231	0.268	0.268	0.284	0.273	0.278	0.271	0.283	0.258	0.273	0.273	0.222	0.250	0.243	0.292	0.298	0.270	0.273	0.262	0.250	0.278	0.285	0.275	0.236	1.000
C. garr.	0.246	0.217	0.540	0.540	0.252	0.233	0.287	0.364	0.232	0.343	0.249	0.234	0.200	0.237	0.264	0.247	0.252	0.476	0.290	0.294	0.318	0.266	0.223	0.302	0.646	0.251

J. Similarity index of *trn*L intron sequence data of 16 Thai *Cassia* species and 9 Cassiinae from GenBank with two outgroups as previous data

	G. dioica	*Ce. siliqua*	*C. alata*	*C. timori-ensis*	*C. spect-abilis*	*C. occide -ntalis*	*C. sophera*	*C. hirsuta*	*C. obtusi-folia*	*C. tora*	*C. suratt-ensis*	*C. grandis*	*C. fistula*	*C. bakeri-ana*	*C. javanica*
G. dioica	1.000														
Ce. siliqua	0.679	1.000													
C. alata	0.636	0.579	1.000												
C. timoriensis	0.652	0.569	0.689	1.000											
C. spectabilis	0.629	0.569	0.822	0.655	1.000										
C. occidentalis	0.632	0.573	0.851	0.669	0.816	1.000									
C. sophera	0.643	0.581	0.843	0.685	0.804	0.955	1.000								
C. hirsuta	0.630	0.579	0.852	0.667	0.815	0.978	0.950	1.000							
C. obtusifolia	0.608	0.551	0.802	0.625	0.767	0.818	0.808	0.822	1.000						
C. tora	0.611	0.553	0.805	0.623	0.770	0.828	0.809	0.831	0.990	1.000					
C. surattensis	0.631	0.571	0.757	0.662	0.729	0.788	0.799	0.792	0.776	0.776	1.000				
C. grandis	0.444	0.424	0.599	0.455	0.565	0.600	0.583	0.600	0.562	0.569	0.527	1.000			
C. fistula	0.571	0.513	0.711	0.547	0.704	0.730	0.717	0.729	0.677	0.681	0.642	0.687	1.000		
C. bakeriana	0.574	0.517	0.710	0.542	0.692	0.718	0.713	0.715	0.677	0.676	0.643	0.683	0.857	1.000	
C. javanica	0.571	0.514	0.709	0.541	0.692	0.714	0.711	0.712	0.673	0.672	0.646	0.670	0.851	0.951	1.000

K. Similarity index of ITS sequence data of 13 Thai *Cassia* species and two outgroups *Gymnocladus dioica* and *Ceratonia siliqua*

	G. dioica	*Ce. siliqua*	*C. alata*	*C. timori-ensis*	*C. spect-abilis*	*C. occide-ntalis*	*C. sopher a*	*C. hirsuta*	*C. obtusi-folia*	*C. tora*	*C. suratt-ensis*	*C. grandis*	*C. fistula*	*C. bakeri-ana*	*C. javanica*
G. dioica	1.000														
Ce. siliqua	0.760	1.000													
C. alata	0.806	0.702	1.000												
C. timoriensis	0.785	0.696	0.876	1.000											
C. spectabilis	0.793	0.692	0.877	0.843	1.000										
C. occidentalis	0.779	0.678	0.881	0.845	0.846	1.000									
C. sophera	0.782	0.677	0.867	0.836	0.847	0.967	1.000								
C. hirsuta	0.777	0.680	0.865	0.840	0.845	0.959	0.959	1.000							
C. obtusifolia	0.777	0.672	0.864	0.825	0.827	0.847	0.833	0.835	1.000						
C. tora	0.790	0.684	0.862	0.827	0.838	0.844	0.845	0.846	0.983	1.000					
C. surattensis	0.782	0.681	0.852	0.827	0.835	0.852	0.852	0.855	0.868	0.879	1.000				
C. grandis	0.697	0.611	0.741	0.716	0.725	0.721	0.732	0.721	0.710	0.721	0.719	1.000			
C. fistula	0.749	0.646	0.798	0.772	0.788	0.791	0.775	0.773	0.767	0.763	0.768	0.795	1.000		
C. bakeriana	0.759	0.655	0.803	0.774	0.786	0.790	0.776	0.772	0.771	0.770	0.773	0.801	0.894	1.000	
C. javanica	0.757	0.653	0.795	0.764	0.798	0.781	0.781	0.778	0.760	0.769	0.780	0.800	0.888	0.957	1.000

L. Similarity index of combined data of 13 Thai *Cassia* species and two outgroups *Gymnocladus dioica* and *Ceratonia siliqua*

BIOGRAPHY

Miss Kanchana Srisawat was born on the 4th of January (1980) in Udornthani Province, Thailand. She finished her secondary school level at Non-formal education in 1996 in Udornthani Province. She got a Bachelor's Degree in Biology from Department of Genetics, Faculty of Science, Kasetsart University in 2001. Then, she has been a graduate student in the Master's Degree in Genetics, Department of Botany, Faculty of Science, Chulalongkorn University since 2002. The uncompleted version of this work had been presented as posters in the 29th Congress in Science and Technology of Thailand (STT 2003), KhonKhean University, October 2003, and in the 12th annual academic symposium of the Faculty of Science, Chulalongkorn University, March 2004, from which the oral presentation award were given.