

附录 3 广西火桐和丹霞梧桐的叶绿体基因组重复序列。注：F 为正向重复序列；R 为反向重复序列；P 为回文重复序列。

Appendix 3 The repeat sequences identified in *Firmiana kwangsiensis* and *F. danxiaensis* chloroplast genome. The F means forward sequence, R means reverse sequence and P means palindromic sequence.

序列长度 Length (bp)	重复类型 Repeat type	重复 1 起始位点 Repeat 1 start position	重复 1 位置 Repeat 1 location	重复 2 起始位点 Repeat 2 start position	重复 2 位置 Repeat 2 location	E 值 E value
<b>广西火桐 <i>Firmiana kwangsiensis</i></b>						
45	P	4362	IGS	4362	IGS	7.93E-16
65	F	4752	IGS	4779	IGS	6.30E-24
38	F	4752	IGS	4806	IGS	2.19E-08
30	P	8048	<i>tRNA-GCU</i>	48024	<i>trnS-GGA</i>	5.68E-07
35	P	16961	IGS	16961	IGS	1.09E-06
49	F	40893	<i>psaB</i>	43117	<i>psaA</i>	2.43E-16
41	F	40901	<i>psaB</i>	43125	<i>psaA</i>	1.85E-13
30	R	44132	IGS	44132	IGS	2.47E-05
30	P	44521	IGS	44521	IGS	2.47E-05
41	F	46143	<i>ycf3</i> intron	125994	<i>ndhA</i> intron	4.33E-10
36	F	46148	<i>ycf3</i> intron	104382	IGS	1.66E-10
36	P	46148	<i>ycf3</i> intron	146118	IGS	1.66E-10
30	F	46157	<i>ycf3</i> intron	104391	IGS	5.68E-07
30	P	46157	<i>ycf3</i> intron	146115	IGS	5.68E-07
30	F	49729	IGS	49771	IGS	2.47E-05
31	F	63398	IGS	63430	IGS	1.58E-09
49	F	72823	IGS	72844	IGS	3.37E-18
32	F	72823	IGS	72865	IGS	1.76E-06
32	F	72844	IGS	72865	IGS	3.79E-08
34	R	76828	<i>clpP</i> intron	76828	<i>clpP</i> intron	1.24E-07
48	P	79503	IGS	79503	IGS	9.18E-20
31	F	94543	<i>ycf2</i>	94564	<i>ycf2</i>	1.47E-07
31	P	94543	<i>ycf2</i>	155941	<i>ycf2</i>	1.47E-07
31	P	94564	<i>ycf2</i>	155962	<i>ycf2</i>	1.47E-07
47	F	96989	<i>ycf2</i>	97007	<i>ycf2</i>	1.61E-13
47	P	96989	<i>ycf2</i>	153482	<i>ycf2</i>	1.61E-13
35	F	97001	<i>ycf2</i>	97019	<i>ycf2</i>	3.30E-08
35	P	97001	<i>ycf2</i>	153482	<i>ycf2</i>	3.30E-08
33	F	97002	<i>ycf2</i>	97038	<i>ycf2</i>	1.45E-05
33	P	97002	<i>ycf2</i>	153465	<i>ycf2</i>	1.45E-05
47	P	97007	<i>ycf2</i>	153500	<i>ycf2</i>	1.61E-13
35	P	97019	<i>ycf2</i>	153500	<i>ycf2</i>	3.30E-08
33	P	97038	<i>ycf2</i>	153501	<i>ycf2</i>	1.45E-05
38	F	104382	IGS	125999	<i>ndhA</i> intron	6.09E-10
30	F	105325	IGS	105352	IGS	2.47E-05

序列长度 Length (bp)	重复类型 Repeat type	重复 1 起始位点 Repeat 1 start position	重复 1 位置 Repeat 1 location	重复 2 起始位点 Repeat 2 start position	重复 2 位置 Repeat 2 location	E 值 E value
<b>广西火桐 <i>Firmiana kwangsiensis</i></b>						
30	P	105325	IGS	145154	IGS	2.47E-05
34	F	113544	IGS	113576	IGS	1.24E-07
34	P	113544	IGS	136926	IGS	1.24E-07
34	P	113576	IGS	136958	IGS	1.24E-07
43	P	122739	IGS	122739	IGS	3.13E-11
38	P	125999	<i>ndhA</i> intron	146116	IGS	6.09E-10
35	P	126392	<i>ndhA</i> intron	126392	<i>ndhA</i> intron	1.09E-06
31	F	130542	<i>ycf1</i>	130563	<i>ycf1</i>	6.60E-06
34	F	136926	IGS	136958	IGS	1.24E-07
33	F	153465	<i>ycf2</i>	153501	<i>ycf2</i>	1.45E-05
47	F	153482	<i>ycf2</i>	153500	<i>ycf2</i>	1.61E-13
38	F	153491	<i>ycf2</i>	153509	<i>ycf2</i>	6.09E-10
30	F	153499	<i>ycf2</i>	153517	<i>ycf2</i>	5.68E-07
31	F	155941	<i>ycf2</i>	155962	<i>ycf2</i>	1.47E-07
<b>丹霞梧桐 <i>Firmiana danxiaensis</i></b>						
45	P	4372	IGS	4372	IGS	7.98E-16
30	P	8000	<i>tRNA-GCU</i>	48084	<i>trnS-GGA</i>	5.71E-07
47	P	9796	IGS	9796	IGS	5.21E-17
30	P	10078	IGS	10078	IGS	2.48E-05
35	P	10189	IGS	10200	IGS	3.32E-08
39	F	29987	IGS	30006	IGS	2.42E-14
30	R	38301	IGS	38301	IGS	6.34E-09
49	F	40946	<i>psaB</i>	43170	<i>psaA</i>	2.44E-16
41	F	40954	<i>psaB</i>	43178	<i>psaA</i>	1.86E-13
30	R	44185	IGS	44185	IGS	2.48E-05
32	P	44575	IGS	44575	IGS	1.77E-06
41	F	46192	<i>ycf3</i> intron	126437	<i>ndhA</i> intron	4.35E-10
36	F	46197	<i>ycf3</i> intron	104749	IGS	1.67E-10
36	P	46197	<i>ycf3</i> intron	146610	IGS	1.67E-10
30	F	46206	<i>ycf3</i> intron	104758	IGS	5.71E-07
30	P	46206	<i>ycf3</i> intron	146607	IGS	5.71E-07
31	F	73203	IGS	73223	IGS	6.64E-06
34	R	77207	<i>clpP</i> intron	77207	<i>clpP</i> intron	1.25E-07
48	P	79882	IGS	79882	IGS	9.23E-20
30	F	87921	IGS	87951	IGS	6.34E-09
31	F	94910	<i>ycf2</i>	94931	<i>ycf2</i>	1.47E-07
31	P	94910	<i>ycf2</i>	156433	<i>ycf2</i>	1.47E-07
31	P	94931	<i>ycf2</i>	156454	<i>ycf2</i>	1.47E-07
47	F	97356	<i>ycf2</i>	97374	<i>ycf2</i>	1.62E-13

序列长度 Length (bp)	重复类型 Repeat type	重复 1 起始位点 Repeat 1 start position	重复 1 位置 Repeat 1 location	重复 2 起始位点 Repeat 2 start position	重复 2 位置 Repeat 2 location	E 值 E value
<b>丹霞梧桐 <i>Firmiana danxiaensis</i></b>						
47	P	97356	<i>ycf2</i>	153974	<i>ycf2</i>	1.62E-13
35	F	97368	<i>ycf2</i>	97386	<i>ycf2</i>	3.32E-08
35	P	97368	<i>ycf2</i>	153974	<i>ycf2</i>	3.32E-08
33	F	97369	<i>ycf2</i>	97405	<i>ycf2</i>	1.46E-05
33	P	97369	<i>ycf2</i>	153957	<i>ycf2</i>	1.46E-05
47	P	97374	<i>ycf2</i>	153992	<i>ycf2</i>	1.62E-13
35	P	97386	<i>ycf2</i>	153992	<i>ycf2</i>	3.32E-08
33	P	97405	<i>ycf2</i>	153993	<i>ycf2</i>	1.46E-05
38	F	104749	IGS	126442	<i>ndhA</i> intron	6.12E-10
34	F	113911	<i>rrn4.5</i>	113943	<i>rrn4.5</i>	1.25E-07
34	P	113911	<i>rrn4.5</i>	137418	<i>rrn4.5</i>	1.25E-07
34	P	113943	<i>rrn4.5</i>	137450	<i>rrn4.5</i>	1.25E-07
33	R	115673	IGS	115673	IGS	4.71E-07
60	F	115688	IGS	115708	IGS	9.90E-25
40	F	115688	IGS	115728	IGS	4.25E-11
30	R	115857	IGS	115858	IGS	5.71E-07
38	P	126442	<i>ndhA</i> intron	146608	IGS	6.12E-10
34	P	126836	<i>ndhA</i> intron	126836	<i>ndhA</i> intron	1.25E-07
31	F	134006	<i>ycf1</i>	134033	<i>ycf1</i>	6.64E-06
34	F	137418	<i>rrn4.5</i>	137450	<i>rrn4.5</i>	1.25E-07
33	F	153957	<i>ycf2</i>	153993	<i>ycf2</i>	1.46E-05
47	F	153974	<i>ycf2</i>	153992	<i>ycf2</i>	1.62E-13
38	F	153983	<i>ycf2</i>	154001	<i>ycf2</i>	6.12E-10
30	F	153991	<i>ycf2</i>	154009	<i>ycf2</i>	5.71E-07
31	F	156433	<i>ycf2</i>	156454	<i>ycf2</i>	1.47E-07