

1 **Appendix A**

2 **Table A1.** The biomass density of different shrubbery types in China.

No.	Community type	Location	Biomass density (Mg/ha)	Reference
1	<i>Avicennia marina</i>	Hainan	9.60	Liao <i>et al.</i> (1993)
2	<i>Berberis julianae</i>	Sichuan	11.00	Wang (2009)
3	<i>Berberis sp.</i>	Gansu	11.99	Zhu <i>et al.</i> (1993)
4	<i>Cerriops tagal</i>	Hainan	11.61	Liao <i>et al.</i> (1993)
5	<i>Coriaria nepalensis</i>	Sichuan	16.16	Wang (2009)
6	<i>Corylus heterophylla</i>	Shanxi	46.45	Chen <i>et al.</i> (2002)
7	<i>Cotinus coggygria</i>	Hubei	13.58	He <i>et al.</i> (1997)
8	<i>Cyclobalanopsis glauca</i> + <i>Casatanea sequinii</i>	Guizhou	15.67	Tu and Yang (1995)
9	<i>Itea ilicifolia</i> + <i>Itea yunnanensis</i>	Guizhou	42.26	Tu and Yang (1995)
10	<i>Lithocarpus dealbatus</i>	Yunnan	23.43	Peng <i>et al.</i> (1992)
11	<i>Loropetalum chinense</i>	Hubei	21.03	He <i>et al.</i> (1997)
12	<i>Lumnitzera racemosa</i>	Hainan	14.30	Liao <i>et al.</i> (1993)
13	<i>Myrica nana</i>	Yunnan	5.58	Gong <i>et al.</i> (2012)
14	<i>Myrsine africana</i>	Hubei	22.54	He <i>et al.</i> (1997)
15	<i>Nandina domestica</i> + <i>Sageretia theezans</i>	Guizhou	45.68	Tu and Yang (1995)
16	<i>Ostryopsis davidiana</i>	Shanxi	38.64	Chen <i>et al.</i> (2002)
17	<i>Potentilla fruticoso</i>	Gansu	7.47	Lei (2012)
17	<i>Potentilla fruticoso</i>	Gansu	6.29	Lei (2012)
17	<i>Potentilla fruticoso</i>	Gansu	15.10	Lei (2012)
17	<i>Potentilla fruticoso</i>	Gansu	18.06	Lei (2012)
17	<i>Potentilla fruticoso</i>	Gansu	20.82	Lei (2012)
17	<i>Potentilla fruticoso</i>	Gansu	36.89	Yu <i>et al.</i> (2000)
17	<i>Potentilla fruticoso</i>	Gansu	42.82	Yu <i>et al.</i> (2000)
17	<i>Potentilla fruticoso</i>	Gansu	35.50	Yu <i>et al.</i> (2000)
17	<i>Potentilla fruticoso</i>	Gansu	32.30	Yu <i>et al.</i> (2000)
17	<i>Potentilla fruticoso</i>	Qinhai	6.77	Zhao <i>et al.</i> (2013)
17	<i>Potentilla fruticoso</i>	Qinhai	37.10	Zhou <i>et al.</i> (2002)
17	<i>Potentilla fruticoso</i>	Gansu	9.60	Zhu <i>et al.</i> (1993)
18	<i>Pyracantha fortuneana</i> + <i>Platycarya longipes</i>	Guizhou	26.67	Tu and Yang (1995)
19	<i>Quercus longispica</i>	Yunnan	27.46	Ou and Zhang (1992)
20	<i>Rhododendron capitatum</i>	Shaanxi	13.99	Zhang <i>et al.</i> (1995)
20	<i>Rhododendron capitatum</i>	Shaanxi	22.16	Zhang <i>et al.</i> (1995)

20	<i>Rhododendron capitatum</i>	Shaanxi	9.17	Zhang <i>et al.</i> (1995)
20	<i>Rhododendron capitatum</i>	Shaanxi	29.31	Zhang <i>et al.</i> (1995)
20	<i>Rhododendron capitatum</i>	Shaanxi	15.59	Zhang <i>et al.</i> (1995)
21	<i>Rhododendron sp.</i>	Shaanxi	38.07	Zhang <i>et al.</i> (1995)
21	<i>Rhododendron sp.</i>	Gansu	29.15	Zhu <i>et al.</i> (1993)
22	<i>Rhodomyrtus tomentosa</i>	Hongkong	19.61	Guan (1998)
23	<i>Rosa cymosa+</i> <i>Zanthoxylum planispinum</i>	Guizhou	30.77	Tu and Yang (1995)
24	<i>Rosa omeiensis</i>	Sichuan	9.67	Wang (2009)
25	<i>Rosa xanthina</i>	Shanxi	31.28	Chen <i>et al.</i> (2002)
25	<i>Rosa xanthina</i>	Shanxi	6.23	Zhang and Shangguan (1991)
26	<i>Salix cupularis</i>	Shaanxi	14.33	Zhang <i>et al.</i> (1995)
26	<i>Salix cupularis</i>	Shaanxi	20.20	Zhang <i>et al.</i> (1995)
26	<i>Salix cupularis</i>	Shaanxi	24.68	Zhang <i>et al.</i> (1995)
26	<i>Salix cupularis</i>	Shaanxi	38.40	Zhang <i>et al.</i> (1995)
26	<i>Salix cupularis</i>	Shaanxi	16.10	Zhang <i>et al.</i> (1995)
26	<i>Salix cupularis</i>	Shaanxi	29.72	Zhang <i>et al.</i> (1995)
26	<i>Salix cupularis</i>	Gansu	22.82	Zhu <i>et al.</i> (1993)
27	<i>Sibiraea angustate</i>	Sichuan	37.93	Wu (1998)
27	<i>Sibiraea angustate</i>	Sichuan	45.85	Wu (1998)
28	<i>Viburnum chinshanensis+</i> <i>Coriaria sinica</i>	Guizhou	33.75	Tu and Yang (1995)
29	<i>Vitex negundo</i>	Hubei	16.90	He <i>et al.</i> (1997)
30	<i>Zanthoxylum tibetanum</i>	Sichuan	9.42	Wang (2009)
<b>Mean</b>			<b>22.92</b>	

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45 **Appendix B**46 **Table B1.** The magnitude and change of C stocks among six regions' TOF during 1977-2008.

Regions	Period	Carbon stock (Tg C)			
		Total	Woodlands	Shrubbery	Trees on non-forest lands
China	1977-1981	826.7	70.3	338.8	417.6
	1984-1988	963.5	74.2	353.9	535.5
	1989-1993	1117.8	68.7	377.4	671.7
	1994-1998	1199.4	108.1	431.3	659.9
	1999-2003	1240.5	96.6	519.1	624.8
	2004-2008	1348.6	82.5	614.9	651.2
	<b>1977-2008</b>	<b>521.9</b>	<b>12.2</b>	<b>276.1</b>	<b>233.6</b>
Northern China	1977-1981	82.4	8.5	26.9	46.9
	1984-1988	132.2	6.3	38.2	87.7
	1989-1993	191.6	6.0	38.6	147.0
	1994-1998	193.1	9.7	47.7	135.8
	1999-2003	211.3	12.1	72.1	127.1
	2004-2008	245.8	12.3	110.5	122.9
	<b>1977-2008</b>	<b>163.4</b>	<b>3.8</b>	<b>83.6</b>	<b>76.0</b>
Northeastern China	1977-1981	65.8	12.3	13.6	40.0
	1984-1988	109.9	8.9	8.6	92.4
	1989-1993	128.5	8.1	3.0	117.5
	1994-1998	132.0	10.2	3.7	118.1
	1999-2003	115.2	7.9	7.7	99.6
	2004-2008	118.6	5.0	9.3	104.3
	<b>1977-2008</b>	<b>52.8</b>	<b>-7.3</b>	<b>-4.3</b>	<b>64.3</b>
Eastern China	1977-1981	144.3	9.2	15.8	119.3
	1984-1988	143.5	10.5	8.8	124.1
	1989-1993	144.9	7.8	8.9	128.3
	1994-1998	152.0	11.3	14.7	126.0
	1999-2003	137.7	8.1	16.8	112.9
	2004-2008	129.4	4.0	13.4	112.0
	<b>1977-2008</b>	<b>-14.9</b>	<b>-5.2</b>	<b>-2.4</b>	<b>-7.3</b>
Southern China	1977-1981	107.7	9.8	33.5	64.4
	1984-1988	118.5	9.8	35.4	73.3
	1989-1993	149.4	7.7	41.5	100.1
	1994-1998	183.4	10.9	67.7	104.8
	1999-2003	180.4	9.6	75.8	95.0

	2004-2008	184.3	7.3	76.1	100.9
	<b>1977-2008</b>	<b>76.6</b>	<b>-2.5</b>	<b>42.6</b>	<b>36.5</b>
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	1977-1981	355.2	24.7	200.3	130.3
	1984-1988	371.7	31.8	210.6	129.3
	1989-1993	398.0	30.2	227.0	140.9
Southwestern China	1994-1998	413.6	47.7	229.4	136.6
	1999-2003	429.0	42.2	233.4	153.4
	2004-2008	459.0	34.5	250.6	173.8
	<b>1977-2008</b>	<b>103.8</b>	<b>9.9</b>	<b>50.3</b>	<b>43.6</b>
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