

Appendix B

The Bennett Objects

Most northern hemisphere observers are unaware that there is a southern deep-sky catalog equivalent to the Messier Catalog. Like Charles Messier (1730–1817), John Caister (Jack) Bennett (1914–1990) also compiled a list of objects not to be confused with comets. He discovered two comets using a 5-inch refractor in South Africa; the most famous find was Comet Bennett (C/1969 Y1), the great comet of March-April 1970. His first list was published in 1969 four months before his first comet discovery and a supplement was added to the list in 1974, also followed by another

comet discovery three months later. In addition to his two comet discoveries, he was the first person to visually discover a supernova with a telescope when he spotted a 9th magnitude star in M83. Bennett was born on April 6th, 1914 in Estcourt, Natal. His father was from Longford, Tasmania and his mother was British. He was a member of the Astronomical Society of Southern Africa (ASSA) and served as their president in 1969. In 1986 he received an Honorary Degree of Master of Science from the University of Witwatersrand. Asteroid VD 4093 was named to honor him.

Table B1: The Bennett Objects											
Object				Con	Mag (v)	Notes	Size		Position (Epoc 2000)		Page
Bennett	NGC	Other	Type				Min (')	Sec (")	R.A	Dec.	
1	55		Gx	Scl	7.9	SB13.4	32.4'×5.6'		00 15 05.9	−39 13 01	1-369
2	104		GC	Tuc	4.0		50.0'		24 05.2	−72 04 51	3-355
3a	247		Gx	Cet	9.1	SB14.0	19.2'×5.5'		47 07.0	−20 44 36	1-158
4	253		Gx	Scl	7.2	SB12.8	29.0'×6.8'		47 33.5	−25 17 28	1-371
5	288		GC	Scl	8.1		13.0'		52 45.5	−26 34 51	1-372
6	300		Gx	Scl	8.1	SB14.0	19.0'×12.9'		54 53.3	−37 41 02	1-372
7	362		GC	Tuc	6.8		14.0'		01 03 14.3	−70 50 54	3-356
8	613		Gx	Scl	10.1	SB13.3	5.5'×4.2'		34 17.8	−29 25 02	1-373
9	1068	M77	Gx	Cet	8.9	SB12.8	7.1'×6.0'		02 42 40.9	−00 00 43	1-167
10	1097		Gx	For	11.5	SB14.4	5.5'×3.3'		43 44.8	−29 00 10	1-193
10a	1232		Gx	Eri	9.9	SB13.9	7.4'×6.5'		03 09 45.1	−20 34 47	1-179
11	1261		GC	Hor	8.3		6.8'		12 15.3	−55 13 01	3-150
12	1291		Gx	Eri	8.5	SB13.4	11.0'×9.5'		17 18.7	−41 06 00	1-180
13	1313		Gx	Ret	8.7	SB13.1	9.2'×6.9'		18 13.5	−66 30 26	3-323
14	1316		Gx	For	8.5	SB13.2	11.0'×7.2'		22 41.0	−37 12 28	1-195
14a	1350		Gx	For	10.3	SB13.3	5.9'×3.1'		31 08.4	−33 37 42	1-197
15	1360	PK220-53.1	PN	For	9.4	CS11.3	385"		33 15.4	−25 52 13	1-197
16	1365		Gx	For	9.6	SB14.1	11.0'×6.2'		33 36.7	−36 08 20	1-198
17	1380		Gx	For	9.9	SB12.2	4.0'×2.4'		36 27.6	−34 58 35	1-199
18	1387		Gx	For	10.7	SB12.7	2.8'×2.6'		36 57.2	−35 30 25	1-200
19	1399		Gx	For	9.6	SB13.7	6.9'×6.5'		38 29.7	−35 26 53	1-200
19a	1398		Gx	For	9.7	SB13.5	7.1'×5.4'		38 51.7	−26 20 11	1-202
20	1404		Gx	For	10.0	SB12.5	3.3'×3.0'		38 51.7	−35 35 40	1-202
21	1433		Gx	Hor	9.9	SB13.7	6.5'×5.9'		47 13.2	−47 13 15	3-152
21a	1512		Gx	Hor	10.3	SB14.4	8.9'×5.6'		04 03 54.3	−43 20 58	3-155
22	1535	PK206-40.1	PN	Eri	9.6	CS12.1	51"		14 15.8	−12 44 21	1-187
23	1549		Gx	Dor	9.8	SB13.0	4.9'×4.1'		15 45.0	−55 35 31	3-118

Table B1: The Bennett Objects (Continued)

Object		Type	Con	Mag (v)	Notes	Size		Position (Epo 2000)		Page
Bennett	NGC					Min (')	Sec (")	R.A.	Dec.	
24	1553		Gx	Dor	9.4	SB12.0	4.5'×2.8'	04 16 11.5	−55 46 51	3-118
25	1566		Gx	Dor	9.7	SB13.9	8.3'×6.6'	20 00.8	−54 56 14	3-119
25a	1617		Gx	Dor	10.4	SB12.7	4.4'×2.1'	31 40.3	−54 36 12	3-121
26	1672		Gx	Dor	9.7	SB13.4	6.6'×5.5'	45 42.2	−59 14 41	3-122
27	1763	IC 2115-16	EN	Dor			5'×3'	56 48.0	−66 24 00	3-185
28	1783		OC	Dor	11.0		3'	59 08.7	−65 59 16	3-186
29	1792		Gx	Col	10.2	SB12.9	5.2'×2.6'	05 05 14.8	−37 58 48	1-171
30	1818		OC	Dor	9.7		3.4'	04 13.0	−66 25 58	3-188
31	1808		Gx	Col	9.9	SB13.3	6.5'×3.9'	07 42.8	−37 30 51	1-173
32	1851		GC	Col	7.1		12.0'	14 06.3	−40 02 50	1-173
33	1866		OC	Dor/LMC	9.7		4.5'	13 38.6	−65 27 51	3-198
34	1904	M79	GC	Lep	7.7		9.6'	24 10.6	−24 31 27	1-225
35	2070		N	Dor			30'×20'	38 36.0	−69 05 00	3-206
36	2214		OC	Dor	10.9		3.6'	06 12 56.1	−68 15 38	3-224
36a	2243		OC	CMa	9.4	#★368	8.3'	29 35.0	−31 17 00	1-90
37	2298		GC	Pup	9.3		5.0'	48 59.2	−36 00 19	1-343
37a	2467		OC+N	Pup	7.1		15.0'	07 52 30.0	−26 26 00	1-354
38	2489		OC	Pup	7.9	#★112	5'	56 16.0	−30 03 54	1-355
39	2506		OC	Mon	7.6	#★807	12'	08 00 02.0	−10 46 00	1-258
40	2627		OC	Pyx	8.4	#★60	9'	37 15.0	−29 57 00	1-363
40a	2671		OC	Vel	11.6	#★40	5'	46 12.0	−41 52 36	3-366
41	2808		GC	Car	6.2		14.0'	09 12 02.6	−64 51 47	3-45
41a	2972		OC	Vel	9.9	#★25	5'	40 12.0	−50 19 18	3-372
41b	2997		Gx	Ant	9.5	SB13.8	8.9'×6.8'	45 39.5	−31 11 26	2-1
42	3115		Gx	Sex	11.9	SB11.9	7.2'×2.4'	10 05 14.1	−07 43 07	2-382
43	3132		PN	Vel	9.2	CS10.0	88"	07 01.8	−40 26 09	3-373
44	3201		GC	Vel	6.9		20.0'	17 36.8	−46 24 40	3-374
45	3242	PK261+32.1	PN	Hya	7.7	CS13.3	64"	24 46.2	−18 38 34	2-215
46	3621		Gx	Hya	9.7	SB14.3	12.3'×6.8'	11 18 16.4	−32 48 36	2-217
47		Melotte 105	OC	Car	8.5	#★73	5'	19 41.0	−63 29 06	3-63
48	3960		OC	Cen	8.3	#★317	7'	50 34.0	−55 41 00	3-71
49	3923		Gx	Hya	9.8	SB13.2	5.9'×3.9'	51 01.4	−28 48 22	2-219
50	4372		GC	Mus	7.2		5.0'	12 25 45.4	−72 39 23	3-246
51	4590	M68	GC	Hya	7.3		11.0'	39 28.0	−26 44 34	2-220
52	4594	M104	Gx	Vir	8.0	SB11.6	8.7'×3.5'	40 00.4	−11 37 35	2-451
53	4697		Gx	Vir	9.2	SB13.0	7.2'×4.7'	48 35.9	−05 48 04	2-456
54	4699		Gx	Vir	9.5	SB11.9	3.8'×2.6'	49 02.4	−08 39 54	2-456
55	4753		Gx	Vir	9.9	SB12.9	6.0'×2.8'	52 22.2	−01 12 01	2-457
56	4833		GC	Mus	8.4		14.0'	59 35.0	−70 52 29	3-247
57	4945		Gx	Cen	8.4	SB12.9	20.0'×3.8'	13 05 26.4	−49 28 34	2-73
58	4976		Gx	Cen	10.0	SB13.1	5.6'×3.0'	08 37.4	−49 30 17	2-74
59	5061		Gx	Hya	10.4	SB12.9	3.5'×3.0'	18 05.2	−26 50 09	2-220
59a	5068		Gx	Vir	10.0	SB14.0	7.2'×6.3'	18 54.6	−21 02 18	2-464
60	5128	Cen A	Gx	Cen	6.8	SB13.5	25.7'×20.0'	25 29.0	−43 01 00	2-75
61	5139	Omega Cen	GC	Cen	3.9		55'	26 45.9	−47 28 37	3-81

Table B1: The Bennett Objects (Continued)										
Object				Con	Mag (v)	Notes	Size	Position (EpoC 2000)		Page
Bennett	NGC	Other	Type				Min (')	Sec (")	R.A	
62	5189	M83	PN	Mus	10.3p	CS14.9	140"	13 33 30.8	−65 58 29	3-249
63	5236		Gx	Hya	7.5	SB12.8	12.9'×11.5'	37 01.0	−29 51 44	2-222
63a	5253		Gx	Cen	10.4	SB12.7	5.0'×1.9'	39 56.1	−31 38 39	2-77
64	5286		GC	Cen	7.4		11.0'	46 26.5	−51 22 24	2-77
65	5617		OC	Cen	6.3	#★292	10'	14 29 42.0	−60 42 00	3-90
66	5634		GC	Vir	9.5		5.5'	29 37.3	−05 58 35	2-468
67	5824		GC	Lup	9.1		7.4'	15 03 58.5	−33 04 04	2-270
68	5897		GC	Lib	8.4		11.0'	17 24.5	−21 00 37	2-264
69	5927		GC	Lup	8.0		6.0'	28 00.5	−50 40 22	2-270
70	5986		GC	Lup	7.6		9.6'	46 03.5	−37 47 10	2-270
71	5999	Trumpler 23	OC	Nor	9.0	#★40	3'	52 14.0	−56 28 12	3-255
72	6005		OC	Nor	10.7	#★35	5'	55 47.4	−57 26 37	3-255
72a			OC	Nor	11.2	#★40	9'	16 00 50.7	−53 32 00	3-255
73	6093		GC	Sco	7.3		10'	17 02.5	−22 58 30	2-337
74	6101		GC	Aps	9.2		5'	25 48.6	−72 12 06	3-16
75	6121	M4	GC	Sco	5.4	#★179	36.0'	23 35.5	−26 31 31	2-338
76	6134	OC	Nor	7.2	6'		27 43.6	−49 09 51	3-259	
77	6144	GC	Sco	9.0	7.4'		27.14.1	−26 01 29	2-340	
78	6139	GC	Sco	9.1	8.2'		27 40.4	−38 50 56	2-340	
79	6171	M107	GC	Oph	7.8		13.0'	32 31.9	−13 03 13	2-291
79a	6167	M12	OC	Nor	6.7	#★218	7'	34 35.0	−49 46 00	3-261
79b	6192		OC	Sco	8.5	#★60	9'	40 20.8	−43 22 00	2-340
80	6218		GC	Oph	6.1		16.0'	47 14.5	−01 56 52	2-291
81	6216		OC	Sco	10.1	#★40	4'	49 23.6	−44 43 39	2-340
82	6235		GC	Oph	8.9		5.0'	53 25.4	−22 10 38	2-292
83	6254	M10	GC	Oph	6.6	#★30	20.0'	57 08.9	−04 05 58	2-292
84	6253	OC	Ara	10.2	4'		59 06.1	−52 42 57	3-26	
85	6266	M62	GC	Oph	6.4		15.0'	17 01 12.6	−30 06 44	2-293
86	6273	M19	GC	Oph	6.8		17.0'	02 37.7	−26 16 05	2-294
87	6284	GC	Oph	8.9			6.2'	04 28.8	−24 45 53	2-295
88	6287		GC	Oph	9.3		4.8'	05 09.4	−22 42 29	2-295
89	6293		GC	Oph	8.3		8.2'	10 10.4	−26 34 54	2-295
90	6304		GC	Oph	8.3		8.0'	14 32.5	−29 27 44	2-297
91	6316		GC	Oph	8.1		5.4'	16 37.4	−28 08 24	2-297
91a	6318		OC	Sco	11.8	#★30	5'	16 13.4	−39 25 26	2-345
92	6333	M9	GC	Oph	7.8		12.0'	19 11.8	−18 30 59	2-297
93	6356		GC	Oph	8.2		10.0'	23 35.0	−17 48 47	2-299
94	6352		GC	Ara	7.8		9.0'	25 29.2	−48 25 22	3-29
95	6362		GC	Ara	8.1		15.0'	31 54.8	−67 02 53	3-29
96	6388		GC	Sco	6.8		10.4'	36 17.0	−44 44 06	2-348
97	6402		M14	GC	Oph	7.6		11.0'	37 36.1	−03 14 45
98	6397		GC	Ara	5.3		31.0'	40 41.3	−53 40 25	3-30
98a	6440		GC	Sgr	9.3		4.4'	48 52.6	−20 21 34	2-315
98b	6445		PN	Sgr	11.2	cs19.0	44"	49 14.9	−20 00 36	2-315
99	6441		GC	Sco	7.2		9.6'	50 12.9	−37 03 04	2-350

Table B1: The Bennett Objects (Continued)

Bennett	Object		Type	Con	Mag (v)	Notes	Size		Position (Epoc 2000)		Page
	NGC	Other					Min (')	Sec (")	R.A	Dec.	
100	6496		GC	CrA	8.6		5.6'		17 59 02.0	−44 15 54	2-105
101	6522		GC	Sgr	9.9		9.4'		18 03 35.0	−30 02 02	2-318
102	6528		GC	Sgr	9.6		5.0'		04 49.6	−30 03 21	2-319
103	6544		GC	Sgr	7.5		9.2'		07 20.6	−24 59 51	2-320
104	6541		GC	CrA	6.3		15.0'		08 02.2	−43 42 20	2-107
105	6553		GC	Sgr	8.3		9.2'		09 17.3	−25 54 28	2-320
106	6569		GC	Sgr	8.4		6.4'		13 38.9	−31 49 35	2-322
107	6584		GC	Tel	7.9		6.6'		18 37.7	−52 12 54	3-332
107a	M24	IC 4715	OC	Sgr			120'		17 00.0	−18 36 00	2-323
108	6618	M17	OC+EN	Sgr	6.0		27'		21 09.0	−16 11 00	2-325
109	6624		GC	Sgr	7.6		8.8'		23 40.5	−30 21 40	2-326
110	6626	M28	GC	Sgr	6.9		13.8'		24 32.9	−24 52 12	2-326
111	6638		GC	Sgr	9.2		7.3'		30 56.2	−25 29 27	2-326
112	6637	M69	GC	Sgr	7.7		9.8'		31 23.2	−32 20 53	2-327
112a	6642		GC	Sgr	8.9		5.8'		31 54.3	−23 28 35	2-328
113	6652		GC	Sgr	8.5		6.0'		35 45.7	−32 59 25	2-328
114	6656	M22	GC	Sgr	5.2		32.0'		36 24.2	−23 54 12	2-328
115	6681	M70	GC	Sgr	7.8		8.0'		43 12.7	−32 17 31	2-329
116	6705	M11	OC	Sct	5.8	#★682	11'		51 04.0	−06 16 00	2-362
117	6712		GC	Sct	8.1		9.8'		53 04.2	−08 42 22	2-362
118	6715	M54	GC	Sgr	7.7		12.0'		55 03.3	−30 28 42	2-329
119	6723		GC	Sgr	6.8		13.0'		59 33.2	−36 37 54	2-330
120	6744		Gx	Pav	8.5	SB14.4	20.1'×12.9'		19 09 46.4	−63 51 28	3-282
121	6752		GC	Pav	5.3		29.0'		10 51.8	−59 58 55	3-282
122	6809	M55	GC	Sgr	6.3		19.0'		39 59.4	−30 57 44	2-330
123	6818		PN	Sgr	9.3		46"		43 57.8	−14 09 10	2-330
124	6864	M75	GC	Sgr	8.6		6.8'		20 06 04.8	−21 55 17	2-331
125	6981	M72	GC	Aqr	9.2		6.6'		53 27.9	−12 32 13	1-29
126	7009		PN	Aqr	8.0	CS12.7	35"		21 04 10.9	−11 21 49	1-30
127	7089	M2	GC	Aqr	6.6		16.0'		33 27.0	−00 49 12	1-31
128	7099	M30	GC	Cap	6.9		12.0'		40 22.0	−23 10 45	2-66
129	7293		PN	Aqr	7.3	CS13.5	1054"		22 29 38.4	−20 50 12	1-34
129a	7410		Gx	Gru	10.3	SB12.5	5.2'×1.6'		55 00.9	−39 39 38	3-140
129b		IC 1459	Gx	Gru	10.0	SB13.2	5.2'×3.8'		57 10.4	−36 27 37	3-141
130	7793		Gx	Scl	9.1	SB13.4	9.3'×6.3'		23 57 49.8	−32 35 26	1-368

Notes: SB = Surface Brightness (galaxies), CS = Central Star (planetary nebulae), #★ = Number of stars (in open star clusters).