

Observe all of the Abell planetary nebulae

by Michael E. Bakich

In the June 2011 issue of *Astronomy*, I wrote an article about the catalog of planetary nebulae created by American astronomer George Abell. I described several of the brightest, but, in fact, most catalog entries are quite faint. For those of you with large telescopes, here's the entire list. Good luck!

Abell #	Constellation	R.A.	Dec.	Mag.	Central star mag.	Size
1	Cepheus	0h13m	69°10'	18.0	20.5	48"
2	Cassiopeia	0h46m	57°58'	14.1	20.0	36"
3	Cassiopeia	2h12m	64°09'	18.2	18.8	60"
4	Perseus	2h45m	42°33'	14.4	19.9	24"
5	Perseus	2h52m	50°36'	16.0	21.4	125"
6	Cassiopeia	2h59m	64°30'	14.3	19.6	180"
7	Lepus	5h03m	-15°36'	13.2	15.4	762"
8	Auriga	5h06m	39°08'	16.6	20.2	60"
9	Auriga	5h29m	36°03'	18.9	20.0	36"
10	Orion	5h32m	6°56'	14.7	20.2	36"
11	Orion	5h37m	8°16'	—	—	—
12	Orion	6h02m	9°39'	12.0	19.7	36"
13	Orion	6h05m	3°57'	15.3	19.8	175"
14	Orion	6h11m	11°47'	17.5	15.2	36"
15	Canis Major	6h27m	-25°23'	15.6	16.1	36"
16	Lynx	6h44m	61°47'	14.5	17.4	140"
17	Monoceros	6h49m	-9°33'	18.5	19.9	60"
18	Monoceros	6h56m	-2°53'	17.5	20.9	70"
19	Gemini	6h59m	14°37'	16.8	—	70"
20	Canis Minor	7h23m	1°46'	14.3	16.5	65"
21	Gemini	7h29m	13°15'	10.3	15.9	118"
22	Canis Minor	7h36m	2°42'	15.4	19.5	120"
23	Puppis	7h43m	-34°45'	13.1	—	54"
24	Canis Minor	7h52m	3°00'	13.5	17.1	360"
25	Monoceros	8h07m	-2°53'	15.4	18.9	170"
26	Puppis	8h09m	-32°40'	18.1	—	49"
27	Pyxis	8h32m	-32°06'	18.0	13.9	65"
28	Ursa Major	8h42m	58°14'	13.5	17.4	270"
29	Pyxis	8h40m	-20°54'	14.3	18.3	400"
30	Cancer	8h47m	17°53'	15.6	14.3	125"
31	Cancer	8h54m	8°54'	12.0	15.5	960"
32	Hydra	9h16m	3°53'	—	—	—
33	Hydra	9h39m	-2°49'	12.6	15.5	270"
34	Hydra	9h46m	-13°10'	12.9	16.3	290"
35	Hydra	12h54m	-22°52'	12.7	09.6	768"
36	Virgo	13h41m	-19°53'	11.8	11.5	370"
37	Virgo	14h04m	-17°14'	13.9	17.9	54"
38	Scorpius	16h23m	-31°45'	15.5	20.5	155"
39	Hercules	16h28m	27°55'	13.0	15.6	175"
40	Ophiuchus	16h49m	-21°01'	16.8	19.7	36"
41	Serpens	17h29m	-15°13'	17.2	16.5	18"
42	Ophiuchus	17h31m	-8°19'	16.5	20.3	60"
43	Ophiuchus	17h54m	10°37'	14.6	14.7	80"
44	Sagittarius	18h30m	-16°45'	15.4	—	54"

Abell #	Constellation	R.A.	Dec.	Mag.	Central star mag.	Size
45	Scutum	18h30m	-11°37'	12.8	21.1	290"
46	Lyra	18h31m	26°56'	14.3	14.9	66"
47	Serpens	18h35m	0°14'	19.5	21.0	18"
48	Aquila	18h43m	-3°13'	17.2	—	49"
49	Scutum	18h53m	-6°29'	16.1	21.0	36"
50	Draco	18h59m	48°28'	13.4	20.0	36"
51	Sagittarius	19h01m	-18°12'	15.0	15.4	67"
52	Aquila	19h05m	17°57'	16.5	18.4	36"
53	Aquila	19h07m	6°24'	15.5	20.9	30"
54	Vulpecula	19h09m	22°59'	17.1	—	54"
55	Aquila	19h10m	-2°20'	15.4	20.5	60"
56	Aquila	19h13m	2°53'	14.1	19.7	200"
57	Vulpecula	19h17m	25°38'	14.7	17.6	36"
58	Aquila	19h18m	1°47'	17.4	19.4	49"
59	Sagitta	19h19m	19°34'	16.8	21.1	90"
60	Sagittarius	19h19m	-12°15'	15.5	18.5	69"
61	Cygnus	19h19m	46°15'	13.5	17.3	195"
62	Aquila	19h33m	10°37'	14.8	18.8	160"
63	Sagitta	19h42m	17°05'	15.9	14.6	49"
64	Aquila	19h46m	-5°34'	15.3	18.1	49"
65	Sagittarius	19h47m	-23°08'	13.2	15.9	125"
66	Sagittarius	19h58m	-21°37'	14.9	17.3	270"
67	Aquila	19h58m	3°03'	15.3	19.3	66"
68	Vulpecula	20h00m	21°43'	15.2	13.2	36"
69	Cygnus	20h20m	38°24'	18.7	21.0	24"
70	Aquila	20h32m	-7°05'	14.5	19.1	49"
71	Cygnus	20h32m	47°21'	14.0	18.9	162"
72	Delphinus	20h50m	13°33'	13.8	16.1	124"
73	Cepheus	20h56m	57°26'	16.5	21.1	72"
74	Vulpecula	21h17m	24°09'	12.2	17.1	828"
75	Cepheus	21h26m	62°54'	13.5	18.0	54"
76	Aquarius	21h30m	-2°47'	15.6	—	24"
77	Cepheus	21h32m	55°53'	15.0	15.7	78"
78	Cygnus	21h35m	31°42'	13.4	13.2	108"
79	Cygnus	22h26m	54°50'	15.0	18.7	115"
80	Lacerta	22h35m	52°26'	16.0	19.6	175"
81	Cepheus	22h42m	80°27'	14.0	18.8	36"
82	Cassiopeia	23h46m	57°04'	12.7	14.9	96"
83	Cassiopeia	23h47m	54°45'	17.6	21.0	48"
84	Cassiopeia	23h48m	51°24'	13.0	18.4	150"
85	Cassiopeia	23h59m	62°30'	—	—	180" by 120"
86	Cepheus	0h01m	70°43'	16.7	20.0	67"

Key: R.A. = Right ascension (2000.0); Dec. = Declination (2000.0); Mag. = approximate total visual magnitude; Central star mag. = Visual magnitude of the planetary's central star.