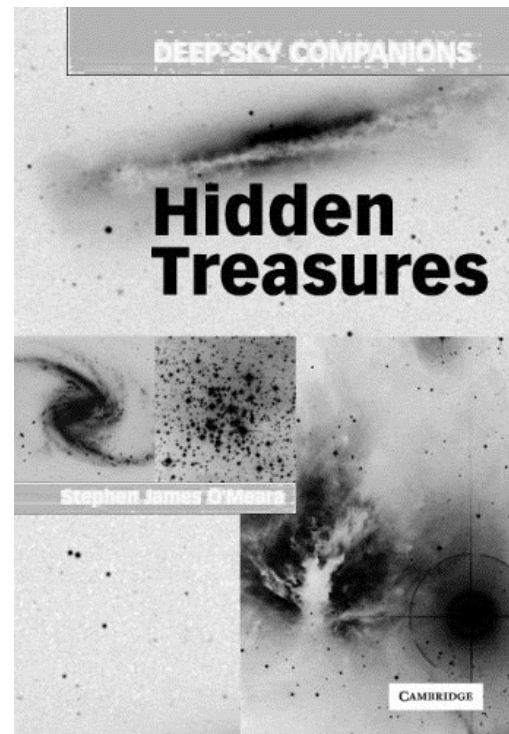


# Hidden Treasures

The 'Hidden Treasures' list comprises 109 Deep Space Objects (DSO) compiled by the well-known astronomer Stephen James O'Meara. It includes objects not included in either the Messier or Caldwell catalogues. This new list was compiled to fill 'gaps' in both the Messier and Caldwell lists. The Messier list was compiled as an aid to avoiding 'embarrassing' objects, which might be mistaken for comets with the poor quality telescopes available at the time. The Caldwell list was compiled by Patrick Moore to include objects he thought were aesthetically pleasing, visually challenging or of astrophysical interest.

The 'Hidden Treasures' list is aimed at including the 'best and brightest' objects not included by Messier or Moore in their catalogues. The list was compiled over the course of 10 years and underwent more than two dozen revisions during that time, but finally comprises – 109 objects; 38 Open Star Clusters, 35 Galaxies, 14 Planetary Nebulae, 8 Globular Star Clusters, 8 Bright Nebulae, 1 Dark Nebula, 1 Star with a large proper motion and 4 Asterisms. Each 'Hidden Treasure' in the list is prefixed by the letter 'H'.

It is hoped the 'H' list will become as popular as those of Messier, Caldwell and the Herschel 400. It deserves to; because it contains many of the 'best and brightest' DSOs neglected by both Messier and Moore.



## Hidden Treasures Catalog

OC: open cluster	PN: planetary nebula	SG: spiral galaxy
GC: globular cluster	IG: irregular galaxy	EG: elliptical galaxy
BN: bright nebula	SR" supernova remnant	DN: dark nebula

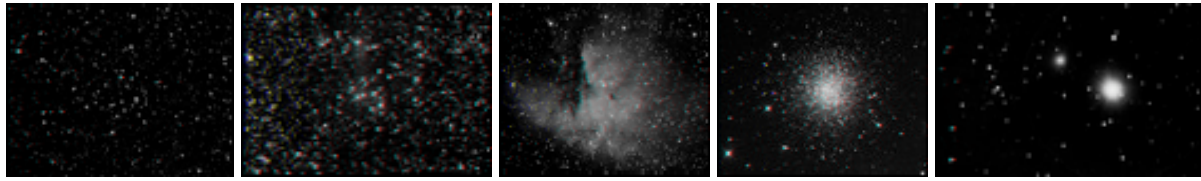
H	NGC/IC	Type	Mag	RA	Dec
1	189	OC	8.8	00h 39m 36s	+61° 05' 42"
2	225	OC	7.0	00h 43m 36s	+61° 46' 00"
3	281	BN	7.8	00h 52m 54s	+56° 37' 30"
4	288	GC	8.1	00h 52m 46s	-26° 35' 51"
5	404	SG	10.0	01h 09m 27s	+35° 43' 06"
6	584	SG	10.5	01h 31m 20s	-06° 52' 02"
7	659	OC	7.9	01h 44m 24s	+60° 40' 12"
8	772	SG	10.3	01h 59m 20s	+19° 00' 27"
9	908	SG	10.2	02h 23m 05s	-21° 14' 00"
10	1023	SG	9.5	02h 40m 24s	+39° 03' 48"
11	1232	SG	9.8	03h 09m 45s	-20° 34' 45"
12	1291	SG	8.5	03h 17m 18s	-41° 06' 26"
13	1316	SG	8.2	03h 22m 42s	-37° 12' 00"
14	Mel 20	OC	2.3	03h 24m 18s	+49° 52' 00"
15	1333	BN	5.7	03h 29m 18s	+31° 25' 00"
16	1360	PN	9.4	03h 33m 15s	-25° 52' 16"
17	1365	SG	9.5	03h 33m 37s	-36° 08' 27"
18	1399	EG	9.4	03h 38m 29s	-35° 26' 59"
19	1398	SG	9.5	03h 38m 52s	-26° 20' 14"
20	1404	EG	10.0	03h 38m 52s	-35° 35' 34"
21	Kemble 1	Asterism		03h 57m 24s	+63° 04' 00"
22	1501	PN	11.5	04h 06m 59s	+60° 55' 17"
23	1502	OC	6.0	04h 07m 49s	+62° 19' 54"
24	1535	PN	9.6	04h 14m 16s	-12° 44' 20"
25	1528	OC	6.4	04h 15m 19s	+51° 12' 42"
26	1545	OC	6.2	04h 20m 56s	+50° 15' 19"
27	1647	OC	6.4	04h 45m 42s	+19° 07' 09"
28	IC 418	PN	9.1	05h 27m 28s	-12° 41' 48"
29	Cr 69	OC	3.0	05h 35m 00s	+09° 56' 00"
30	1981	OC	4.2	05h 35m 12s	-04° 26' 00"
31	Cr 72	OC	3.0	05h 35m 24s	-05° 55' 00"
32	1977	BN	6.3	05h 35m 18s	-04° 49' 15"
33	1999	BN	9.5	05h 36m 25s	-06° 42' 57"
34	2024	BN	7.2	05h 41m 42s	-01° 51' 24"
35	2163	BN	11	06h 07m 50s	+18° 39' 27"
36	2169	OC	5.9	06h 08m 24s	+13° 57' 53"
37	2175	BN	6.9	06h 09m 39s	+20° 29' 18"
38	2264	OC	4.1	06h 40m 58s	+09° 53' 44"
39	2301	OC	6.0	06h 51m 45s	+00° 27' 33"
40	2353	OC	7.1	07h 14m 30s	-10° 15' 57"

H	NGC/IC	Type	Mag	RA	Dec
41	2440	PN	9.4	07h 41m 55s	-18° 12' 29"
42	2451	Asterism	2.8	07h 45m 24s	-37° 57' 00"
43	2467	BN	7.1	07h 52m 26s	-26° 26' 12"
44	2547	OC	4.7	08h 10m 09s	-49° 13' 30"
45	2539	OC	6.5	08h 10m 37s	-12° 49' 14"
46	2546	OC	6.3	08h 12m 24s	-37° 37' 00"
47	2683	SG	9.7	08h 52m 41s	+33° 25' 12"
48	2655	SG	10.1	08h 55m 38s	+78° 13' 25"
49	2841	SG	9.3	09h 22m 02s	+50° 58' 35"
50	IC 2488	OC	6.0	09h 27m 27s	-56° 57' 24"
51	2903	SG	8.8	09h 32m 10s	+21° 29' 57"
52	3184	SG	9.6	10h 18m 17s	+41° 25' 24"
53	3228	OC	6.0	10h 21m 22s	-51° 43' 42"
54	3293	OC	4.7	10h 35m 51s	-58° 13' 48"
55	3344	SG	9.7	10h 43m 31s	+24° 55' 22"
56	3521	SG	9.2	11h 05m 49s	-00° 02' 13"
57	3621	SG	9.4	11h 18m 16s	-32° 48' 40"
58	3628	SG	9.6	11h 20m 17s	+13° 35' 24"
59	4214	IG	9.6	12h 15m 39s	+36° 19' 39"
60	4216	SG	10.3	12h 15m 54s	+13° 08' 52"
61	4361	PN	10.9	12h 24m 31s	-18° 47' 03"
62	Mel 111	OC	1.6	12h 25m 06s	+26° 07' 00"
63	4490	SG	9.5	12h 30m 36s	+41° 38' 34"
64	IC 3568	PN	10.3	12h 33m 07s	+82° 33' 51"
65	4526	SG	9.6	12h 34m 03s	+07° 41' 56"
66	4605	SG	10.1	12h 39m 59s	+61° 36' 30"
67	4656	SG	10.1	12h 43m 58s	+32° 10' 11"
68	4699	SG	9.6	12h 49m 02s	-08° 39' 50"
69	4725	SG	9.3	12h 50m 26s	+25° 30' 00"
70	5102	SG	9.5	13h 21m 57s	-36° 37' 54"
71	5281	OC	5.9	13h 46m 37s	-62° 54' 34"
72	5363	SG	10.5	13h 56m 07s	+05° 15' 14"
73	5662	OC	5.5	14h 35m 31s	-56° 39' 46"
74	5746	SG	10.5	14h 44m 56s	+01° 57' 22"
75	5866	SG	9.9	15h 06m 29s	+55° 45' 49"
76	5897	GC	8.4	15h 17m 24s	-21° 00' 35"
77	5986	GC	7.6	15h 46m 04s	-37° 47' 08"
78	6210	PN	8.8	16h 44m 30s	+23° 48' 02"
79	6242	OC	6.4	16h 55m 31s	-39° 28' 01"
80	6281	OC	5.4	17h 04m 47s	-37° 53' 16"
81	6369	PN	11.4	17h 29m 20s	-23° 45' 33"
82	6400	OC	8.8	17h 40m 12s	-36° 57' 42"
83	IC 4665	OC	4.7	17h 46m 12s	+05° 43' 00"
84	6445	PN	11.2	17h 49m 15s	-20° 00' 32"
85	6503	SG	10.2	17h 49m 28s	+70° 08' 37"
86	6441	GC	7.2	17h 50m 13s	-37° 03' 02"

H	NGC/IC	Type	Mag	RA	Dec
87	Barnard's	Star	9.5	17h 57m 48s	+04° 40' 06"
88	6520	OC	7.6	18h 03m 25s	-27° 53' 28"
89	6544	GC	7.5	18h 07m 21s	-24° 59' 49"
90	6572	PN	8.1	18h 12m 06s	+06° 51' 15"
91	6624	GC	7.6	18h 23m 40s	-30° 21' 38"
92	6633	OC	4.6	18h 27m 15s	+06° 30' 30"
93	IC 4756	OC	4.3	18h 38m 54s	+05° 26' 00"
94	6709	OC	6.7	18h 51m 30s	+10° 20' 00"
95	6712	GC	8.1	18h 53m 04s	-08° 42' 20"
96	6723	GC	6.8	18h 59m 33s	-36° 37' 52"
97	Cr 399	Asterism	3.5	19h 26m 12s	+20° 06' 00"
98	6819	OC	7.3	19h 41m 18s	+40° 11' 00"
99	6818	PN	9.3	19h 43m 58s	-14° 09' 09"
100	6866	OC	7.6	20h 03m 55s	+44° 09' 33"
101	6940	OC	6.3	20h 34m 32s	+28° 16' 49"
102	N Coalsack	DN		20h 40m 00s	+41° 00' 00"
103	7008	PN	10.7	21h 00m 33s	+54° 32' 38"
104	7027	PN	8.5	21h 07m 02s	+42° 14' 12"
105	Tr 37	OC	3.8	21h 39m 00s	+57° 30' 00"
106	7380	OC	7.2	22h 47m 21s	+58° 07' 54"
107	O'Meara1	Asterism		23h 40m 42s	+07° 57' 00"
108	7789	OC	6.7	23h 57m 29s	+56° 42' 52"
109	7793	SG	9.0	23h 57m 49s	-32° 35' 30"

## Hidden Treasures Observing Log

H	Date	H	Date	H	Date
1		39		77	
2		40		78	
3		41		79	
4		42		80	
5		43		81	
6		44		82	
7		45		83	
8		46		84	
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10		48		86	
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25		63		101	
26		64		102	
27		65		103	
28		66		104	
29		67		105	
30		68		106	
31		69		107	
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38		76			



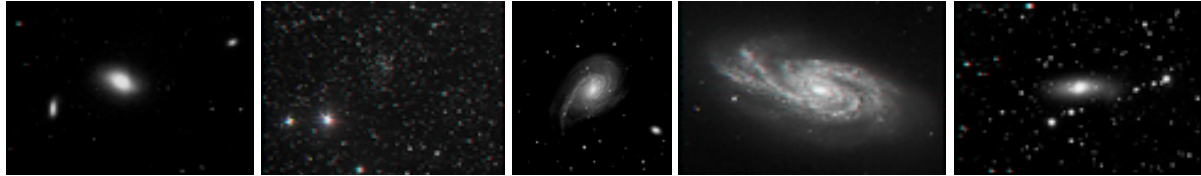
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H3 NGC281

H4 NGC288

H5 NGC404



H6 NGC584

H7 NGC659

H8 NGC772

H9 NGC908

H10 NGC1023



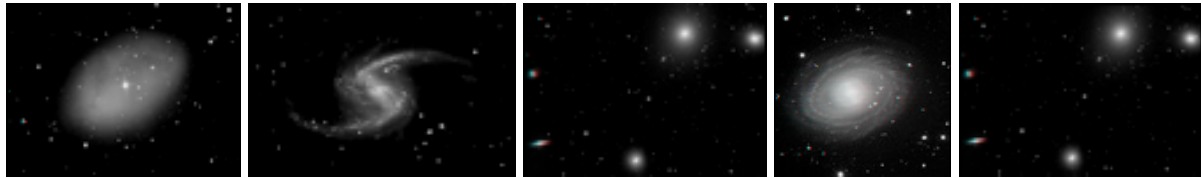
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H15 NGC1333



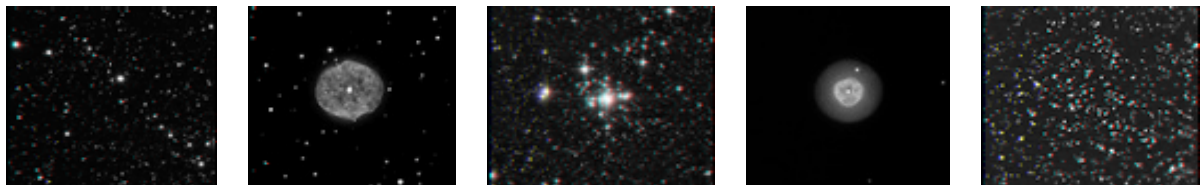
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H20 NGC1404



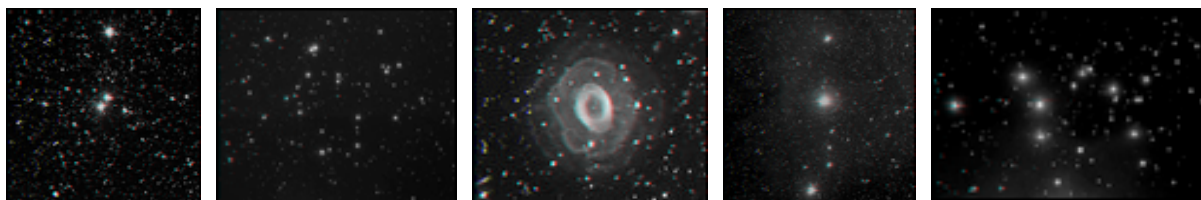
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H22 NGC1501

H23 NGC1502

H24 NGC1535

H25 NGC1528



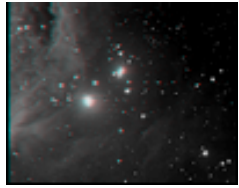
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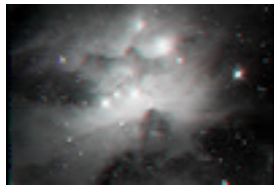
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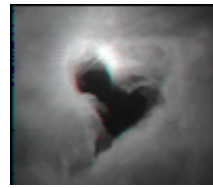
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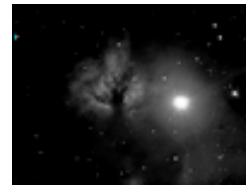
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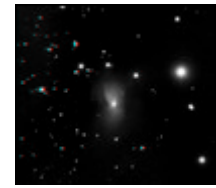
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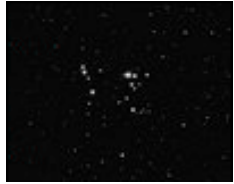
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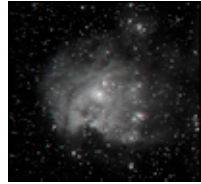
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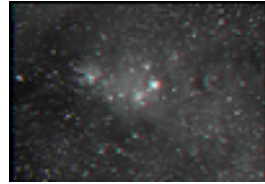
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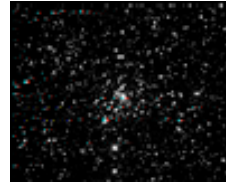
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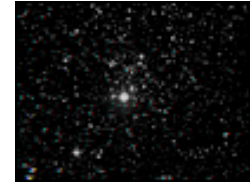
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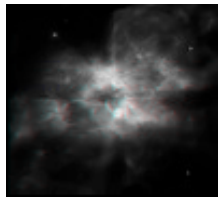
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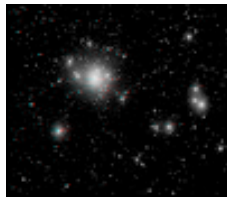
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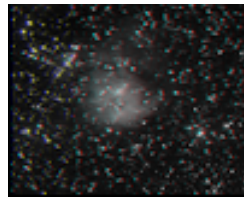
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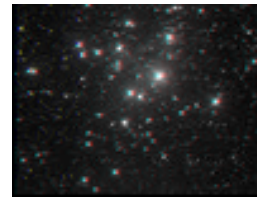
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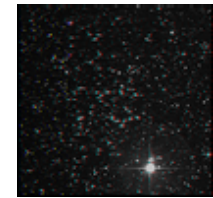
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H43 NGC2467



H44 NGC2547



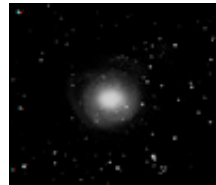
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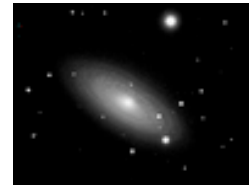
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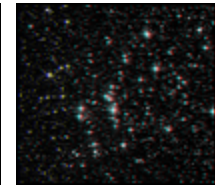
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H48 NGC2655



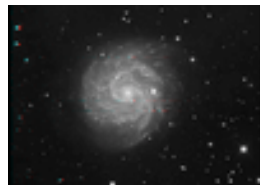
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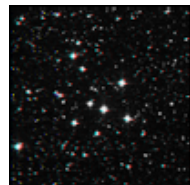
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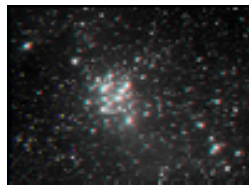
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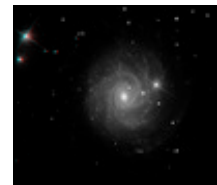
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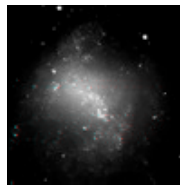
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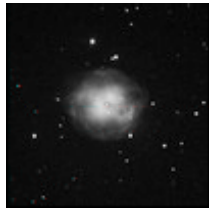
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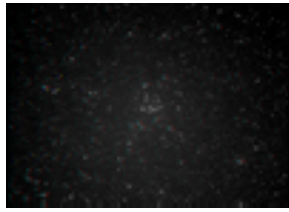
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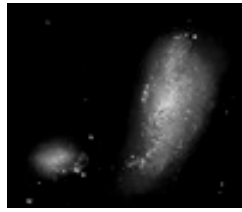
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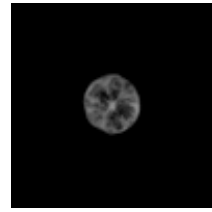
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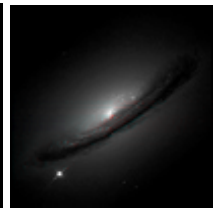
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H63 NGC4490



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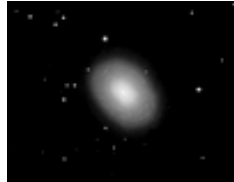
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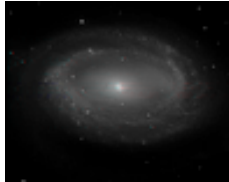
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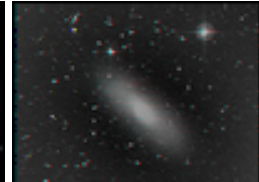
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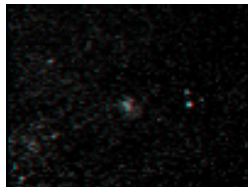
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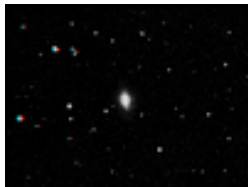
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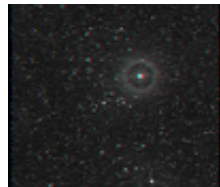
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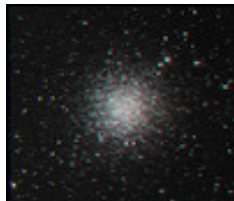
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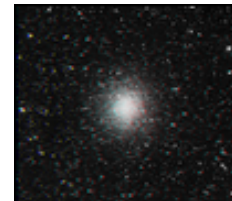
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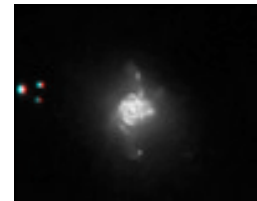
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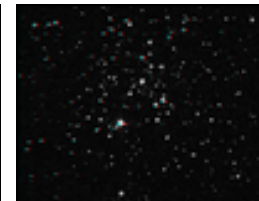
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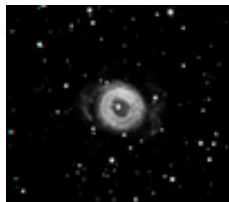
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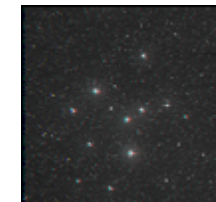
H80 NGC6281



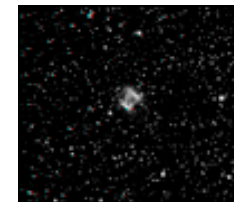
H81 NGC6369



H82 NGC6400



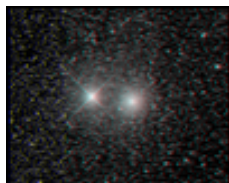
H83 IC4665



H84 NGC6445



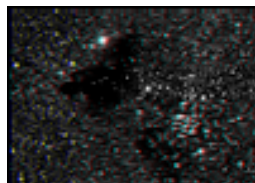
H85 NGC6503



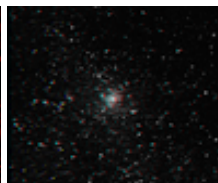
H86 NGC6441



H87 Barnard's Star



H88 NGC6520

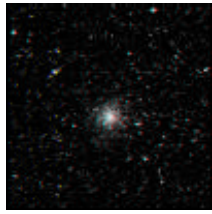


H89 NGC6544

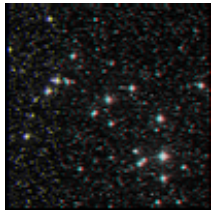


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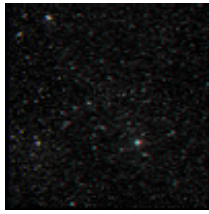




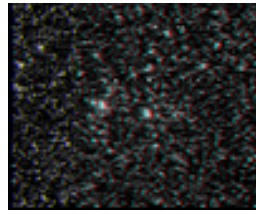
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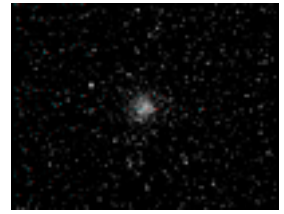
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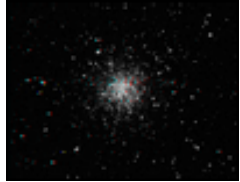
H93 IC4756



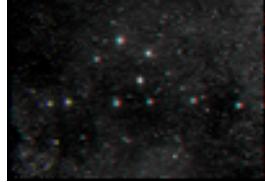
H94 NGC6709



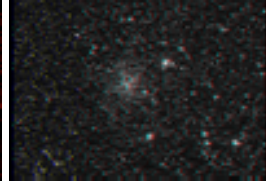
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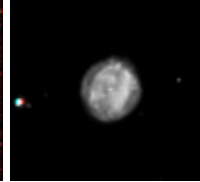
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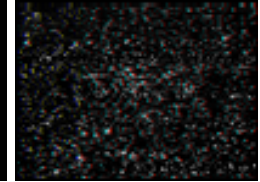
H97 Cr399



H98 NGC6819



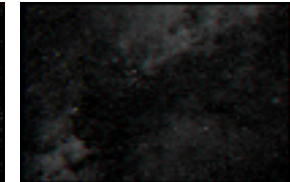
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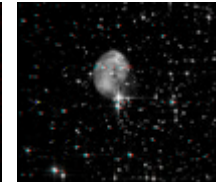
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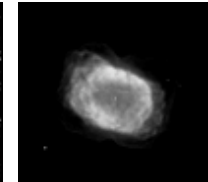
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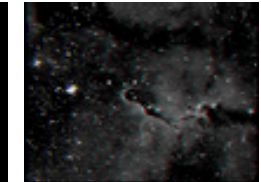
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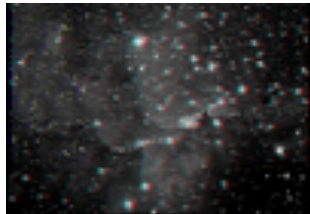
H103 NGC7008



H104 NGC7027



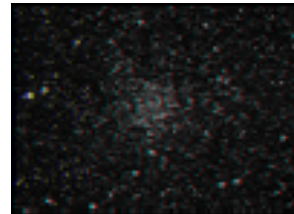
H105 Tr37



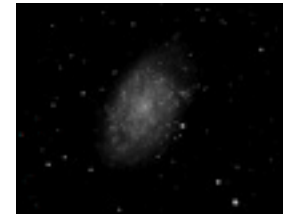
H106 NGC7380



H107 O'Meara1



H108 NGC7789



H109 NGC7793