

Life After Messier

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After observing and logging the Messier list, most amateur astronomers search around for a next project. Many formal, published lists appear too difficult or too long. The logical next project for deep sky observing is likely the Herschel 400. However, a 400-object list can look like a "life project" when you are starting.

The main purpose of the following object lists, split into sections for Spring, Summer, Fall and Winter, is to provide a list of roughly 100 NGC objects (105, to be exact) that are visible in normal back yard telescopes, providing some direction after the Messier list has been logged. A second, and equally important, goal is to help to start the Herschel 400 list. This object list can be used as an end in itself or as a start on the Herschel 400. If the list is completed for all four seasons, more than twenty-five percent of the H400 list will be complete.

I have observed each of the objects on the lists with an 8", 10" or 14" telescope and all should be visible in a 6". As with all deep-sky observing however, the more aperture you bring to bear, the more you will see. Two resources were used in researching object visibility: *Night Sky Observer's Guide* (Kepple and Sanner) and *Observing Handbook and Catalogue of Deep Sky Objects* (Luginbuhl and Skiff). Another criterion was object inclusion in Sky Atlas 2000.0, 2nd Edition, to ensure common availability of charts. For GO-TO users, finding will of course be no issue. For star-hoppers like me, some will be easy to find and some not-so-easy.

Either way, it's supposed to be fun.

Spring List

The Spring List contains 26 objects in 8 constellations. Since Spring is galaxy season, the list contains 22 galaxies with 2 globular clusters and 2 planetary nebulae thrown in for variety. All objects can be found in Sky Atlas 2000.0, 2nd Edition and should be in any other comparable atlas.

Const	Object	Type	RA & Dec	Mag	Size
Boo	NGC5466	GC	14 05 27.3 +28 32 04	9.2	9.0'
Boo	NGC5248	GXY	13 37 31.9 +08 53 08	11.0b	6.6x 5.3'
Com	NGC4565	GXY	12 36 20.9 +25 59 00	10.4b	15.9x 1.8'
Com	NGC4725	GXY	12 50 26.9 +25 30 01	10.1b	10.7x 8.0'
Com	NGC4448	GXY	12 28 15.6 +28 37 15	12.0b	4.6x 1.7'
Com	NGC4450	GXY	12 28 29.6 +17 05 05	10.9b	5.2x 3.8'
Com	NGC4147	GC	12 10 06.2 +18 32 31	10.4	4.4'
Crv	NGC4361	PN	12 24 30.8 -18 47 02	10.3p	118.0"
CVn	NGC4111	GXY	12 07 02.7 +43 04 02	11.6b	5.2x 1.2'
CVn	NGC4143	GXY	12 09 36.1 +42 32 02	11.7b	2.4x 1.8'
CVn	NGC4214	GXY	12 15 39.6 +36 19 34	10.2b	7.4x 6.5'
CVn	NGC4631	GXY	12 42 05.0 +32 32 18	9.8b	15.4x 2.6'
CVn	NGC4656	GXY	12 43 57.2 +32 09 59	11.0b	9.1x 1.7'
Hya	NGC3242	PN	10 24 46.2 -18 38 34	8.6p	75.0"
Leo	NGC2903	GXY	09 32 09.6 +21 29 58	9.7b	12.6x 6.0'
Leo	NGC3190	GXY	10 18 05.7 +21 49 57	12.1b	4.4x 1.2'
Leo	NGC3193	GXY	10 18 24.7 +21 53 34	11.8b	2.0x 2.0'
Leo	NGC3377	GXY	10 47 42.3 +13 59 08	11.2b	5.2x 2.9'
Leo	NGC3521	GXY	11 05 48.9 -00 02 15	9.0	11.0x 7.1'
UMa	NGC2841	GXY	09 22 02.2 +50 58 46	10.1b	8.1x 3.5
UMa	NGC3675	GXY	11 26 07.8 +43 35 05	11.0	b5.8x 3.0'
UMa	NGC4085	GXY	12 05 22.9 +50 21 14	13.0b	2.8x 0.9'
UMa	NGC4088	GXY	12 05 34.1 +50 32 23	11.2b	5.3x 2.1'
Vir	NGC4526	GXY	12 34 02.9 +07 42 01	10.7b	7.2x 2.3'
Vir	NGC4699	GXY	12 49 02.0 -08 39 52	10.4b	4.0x 2.8'
Vir	NGC4762	GXY	12 52 56.3 +11 13 48	10.2v	8.8x 1.7'

Summer List

All objects can be found in Sky Atlas 2000.0, 2nd Edition except NGC6755. 6755 and 6756 will be in the same one degree field. Objects should be in any other comparable atlas. The list contains 27 objects with three groups of two for 24 ôfindsö in ten constellations. There are NO galaxies for summer; there are 11 globular clusters, 4 planetaries, and 12 open clusters.

Const	Object	Type	RA & Dec		Mag	Size
Aql	NGC6755	OC	19 07 47.9	4 13 59.0	7.5	14.0
Aql	NGC6756	OC	19 08 42.0	4 41 0.0	11.0	4.0
Aql	NGC6781	PN	19 18 24.0	6 33 0.0	12.0	1.8
Cyg	NGC6834	OC	19 52 12.0	29 24 59.0	8.0	5.0
Cyg	NGC6910	OC	20 23 6.0	40 46 59.0	7.5	7.0
Cyg	NGC7128	OC	21 44 0.0	53 43 0.0	9.8	3.1
Del	NGC6905	PN	20 22 23.9	20 07 0.0	12.0	72 X 37
Del	NGC6934	GC	20 34 11.9	7 24 0.0	9.0	7.1
Her	NGC6229	GC	16 47 0.0	47 31 59.0	9.5	4.5
Lac	NGC7209	OC	22 05 11.9	46 30 0.0	6.8	24.0
Oph	NGC6293	GC	17 10 12.0	-26 35 0.0	8.3	8.2
Oph	NGC6304	GC	17 14 30.0	-29 28 0.0	8.5	8.0
Oph	NGC6316	GC	17 16 35.9	-28 07 59.0	9.0	5.4
Oph	NGC6355	GC	17 24 0.0	-26 21 0.0	9.8	4.2
Oph	NGC6369	PN	17 29 17.9	-23 45 59.0	13.0	38
Oph	NGC6633	OC	18 27 41.9	6 33 59.0	4.8	27.0
Sco	NGC6144	GC	16 27 17.9	-26 01 59.0	9.3	7.4
Sco	NGC6451	OC	17 50 41.9	-30 13 0.0	8.0	7.0
Sct	NGC6664	OC	18 36 41.9	-08 12 59.0	8.0	16.0
Sct	NGC6712	GC	18 53 6.0	-08 41 59.0	8.3	9.8
Sgr	NGC6440	GC	17 48 54.0	-20 22 0.0	9.8	4.4
Sgr	NGC6445	PN	17 49 11.9	-20 00 59.0	13.0	44 X 30
Sgr	NGC6522	GC	18 03 35.9	-30 01 59.0	8.8	9.4
Sgr	NGC6528	GC	18 04 47.9	-30 02 59.0	9.5	5.0
Sgr	NGC6583	OC	18 15 48.0	-22 07 59.0	10.0	4.0
Sgr	NGC6645	OC	18 32 35.9	-16 53 59.0	9.0	10.0
Vul	NGC6940	OC	20 34 35.9	28 17 59.00	6.5	31.0

Fall List

The Fall List contains a variety of object types ù 1 globular cluster, 4 planetaries, 8 galaxies and 14 open clusters for a total of 27 objects in 8 constellations. All are on Sky Atlas 2000.0, 2nd Edition charts.

Const	Object	Type	RA & Dec	Mag	Size
And	NGC404	GXY	01 09 27.3 +35 43 08	11.2b	3.4x3.4'
And	NGC752	OC	01 57 48.0 +37 51 00	5.7	49.0'
And	NGC891	GXY	02 22 33.4 +42 21 03	10.8b	14.3x 2.4'
And	NGC7662	PN	23 25 53.9 +42 32 06	9.2p	37.0"
Cas	NGC225	OC	00 43 30.0 +61 47 00	7.0	12.0'
Cas	NGC457	OC	01 19 33.0 +58 17 24	6.4	13.0'
Cas	NGC637	OC	01 43 04.0 +64 02 12	8.2	3.5'
Cas	NGC663	OC	01 46 17.0 +61 13 06	7.1	16.0'
Cas	NGC7789	OC	23 57 26.6 +56 43 14	6.7	15.0'
Cep	NGC40	PN	00 13 00.9 +72 31 19	10.7p	70.0x60.0"
Cep	NGC7380	OC	22 47 00.0 +58 06 00	7.2	12.0'
Cep	NGC7510	OC	23 11 04.1 +60 34 08	7.9	4.0'
Cet	NGC246	PN	00 47 03.6 -11 52 20	8.0p	4.1'
Cet	NGC247	GXY	00 47 08.7 -20 45 38	9.1v	21.4x 6.0'
Cet	NGC936	GXY	02 27 37.4 -01 09 17	11.1b	4.7x 4.0'
Cet	NGC908	GXY	02 23 05.3 -21 13 59	10.8b	6.0x 2.6'
Cet	NGC584	GXY	01 31 20.5 -06 52 07	11.4b	4.1x 2.2'
Eri	NGC1535	PN	04 14 15.8 -12 44 21	9.6p	60.0"
Per	NGC869	OC	02 19 04.0 +57 08 06	5.3	29.0'
Per	NGC884	OC	02 22 20.0 +57 08 00	6.1	29.0'
Per	NGC1245	OC	03 14 42.0 +47 14 18	8.4	10.0'
Per	NGC1342	OC	03 31 36.0 +37 23 00	6.7	14.0'
Per	NGC1528	OC	04 15 19.0 +51 12 42	6.4	23.0'
Per	NGC1545	OC	04 20 57.0 +50 15 18	6.2	18.0'
Psc	NGC488	GXY	01 21 46.8 +05 15 25	10.2v	6.6x 5.3'
Scl	NGC253	GXY	00 47 32.9 -25 17 20	8.0b	27.7x 6.7'
Scl	NGC288	GC	00 52 45.5 -26 34 51	8.1	13.0'

Winter List

The Winter List contains 25 objects in 8 constellations with 20 open clusters, 3 bright nebulae and 2 planetaries. All are included in Sky Atlas 2000.0, 2nd Edition charts.

Const	Object	Type	RA & Dec	Mag	Size
Aur	NGC1857	OC	05 20 06.0 +39 20 36	7.0	5.0'
Aur	NGC1907	OC	05 28 05.0 +35 19 30	8.2	6.0'
Aur	NGC2281	OC	06 48 18.0 +41 04 42	5.4	14.0'
Cas	NGC2360	OC	07 17 44.0 -15 38 30	7.2	12.0'
Cas	NGC2362	OC	07 18 42.0 -24 57 18	3.8	6.0'
Gem	NGC2129	OC	06 01 07.1 +23 19 15	6.7	6.0'
Gem	NGC2266	OC	06 43 20.0 +26 58 12	9.5	6.0'
Gem	NGC2392	PN	07 29 11.0 +20 54 39	9.9p	50.0"
Gem	NGC2420	OC	07 38 24.0 +21 34 24	8.3	10.0'
Mon	NGC2215	OC	06 20 50.0 -07 17 00	8.4	11.0'
Mon	NGC2232	OC	06 28 02.0 -04 50 48	4.2	29.0'
Mon	NGC2244	OC	06 32 19.0 +04 51 24	4.8	23.0'
Mon	NGC2251	OC	06 34 39.0 +08 22 00	7.3	10.0'
Mon	NGC2264	OC	06 40 59.0 +09 53 42	4.1	20.0'
Mon	NGC2506	OC	08 00 02.0 -10 46 12	7.6	6.0'
Ori	NGC1999	Neb	05 36 14.0 -06 39 00		21.5x18.0'
Ori	NGC2024	Neb	05 41 39.0 -01 48 00		30.0x22.0'
Ori	NGC2022	PN	05 42 06.2 +09 05 13	12.4p	35.0"
Ori	NGC2169	OC	06 08 25.0 +13 57 54	5.9	6.0'
Ori	NGC1788	Neb	05 06 55.0 -03 20 15		5.5x3.0'
Pup	NGC2539	OC	08 10 38.0 -12 49 12	6.5	21.0'
Pup	NGC2567	OC	08 18 30.0 -30 38 42	7.4	10.0'
Pyx	NGC2627	OC	08 37 15.0 -29 57 00	8.4	11.0'
Tau	NGC1647	OC	04 45 54.0 +19 08 00	6.4	45.0'
Tau	NGC1817	OC	05 12 27.0 +16 41 00	7.7	15.0'