

Observing Flat Galaxies



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Selected Shakhbazian Groups
Ring Galaxies
Palomar Compact Galaxy Catalogue
Object of the Week 2012 and 2013 – Deep Sky Forum

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Front Cover: NGC 5907 with tidal trails of a dwarf galaxy being gradually torn apart.

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Flat Galaxies, What Are They?

Back in 1993, Russian and Ukrainian astronomers I.D. Karachentsiv, V.E. Karachentseva, et al collaborated to research on “super thin” galaxies with very little to no central bulge. After carefully looking through the Palomar Sky Survey and ESO/SERC survey plates that meets two criteria:

- The axial ratio for the blue image is greater or equal to 7.
- The angular diameter (blue) is greater or equal to 40 arcseconds.

They produced a list of 4,455 flat galaxies covering 56% of the sky.¹ Then in 1999, a refinement of the original work to tighter criteria, more accurate J2000.0 coordinates, more accurate magnitude figures, among other refinements and resulted in the Revised Flat Galaxy Catalogue.²

The idea of this list for professional astronomers is that they can study extragalactic dynamics and large-scale motions. Flat galaxies tend to be straight and flat, thus most are isolated, such that their structure remains undisturbed.

Many are challenging objects in mid-sized telescopes, typically about 12-16”. Since flat galaxies are edge on Sc or later spirals with little or no central bulge, visually, they would appear as a low surface brightness thin ghostly streak on the inky black sky. You will want dark transparent nights to have the best chance of observing these flat galaxies. Best to use medium power. Use an eyepiece that gives a 2mm exit pupil, for example in my 22” f/4, the best eyepiece would be 8mm focal length.

Most flat galaxies are late-type spirals with an average overall lower stellar density and more blue stars. Also, all have very small or no central bulge, unlike the Milky Way. Imagine as an observer in a flat galaxy, they probably would see fewer stars, but probably more 1st magnitude and brighter stars as there are more blue stars in these galaxies compared to our galaxy. He would also see no central bulge unlike the Milky Way, but probably more dust.

Flat Galaxies are challenging visual objects. Here are some observing tips that will hopefully improve your chances of seeing them:

- Keep your eyes dark adapted as fully as possible. Even the sky glow from the sky, especially if the Milky Way is above the horizon, can impact your night vision. When not looking at the eyepiece, waiting for your turn at the eyepiece, or just taking a break, look down at the dark ground, preferably with a hood over your head. I sometimes look down for a few minutes before looking in the eyepiece.
- To further darken the field around you, use a hooded vest. The hood should block all extraneous light, including the sky glow and even the Milky Way at very dark sites. If a hooded vest is not available, use a black or dark blue towel and drape it over your head.
- Use your eyepiece guards. They offer an extra light-blocking barrier between your eyepiece and your eye. If your eyepiece doesn't come with one, you can install one for some eyepiece. See my website at faintfuzzies.com/ObservingAids.html for some ideas.

¹ I.D. Karachentsev, V.E. Karachentseva, and S.L. Parnovsky. “Flat Galaxy Catalogue” *Astronomische Nachrichten*. Vol. 314, No. 3, 1993, pp 97-222

² I.D. Karachentsev, V.E. Karachentseva, et al. “The Revised Flat Galaxy Catalogue” *Bull. Spec. Astrophys. Obs.* Vol. 47, 1999, pp 5-185

- If you think you saw the object(s), but are not sure, gently tap the telescope or wiggle it. The foreground stars will wiggle in the eyepiece, and if you see the object, it will wiggle as well along with the foreground stars.
- If you are tired, you won't see as much. Take a nap or rest. Try to observe in a comfortable position. It helps if you aren't straining your neck (or anything else) when you are trying to observe. Some fleeting objects would disappear when fatigued.
- Use low-glass count and high transmission eyepieces. Even with modern glass polish and coating technology, there is still a very small, but noticeable difference between high glass count eyepieces, such as the common wide-field eyepiece versus a simple Orthoscopic or Plössl. Over the years, I've done comparisons between various eyepieces, such as the Naglers, Ethos, Naglers, Pentax XW's, Orthoscopics (Zeiss, Baader, University Optics, etc.), and Plössl (some makes), and found that low-glass count eyepieces consistently outperform high-glass count eyepieces. See my website under Observing Tips, titled **Going DEEP with simple eyepieces**, for more information.

When you observe these flat galaxies, let others know and encourage them to take on this challenging observing project.

Post your observations at www.deepskyforum.com and I'm sure that other deep sky observers would love to read them.

Any feedback or suggestions would be greatly appreciated. I strive to be as accurate as possible. Are there any other flat galaxies you feel that should be included? Let me know.

I hope to keep this resource updated and made available to you, the deep sky observer.

Flat Galaxy Catalogue

Pg	Name	RA	Dec	Mag	Size	Urano	Con
18	UGC 11893	22 04 07.2	+35 56 17	15.2	2.2 x 0.3'	46R	Peg
19	UGC 11964	22 15 28.8	+19 13 12	14.5	1.9 x 0.1'	64R	Peg
20	UGC 11994	22 20 52.8	+33 17 42	14.9p	2.2 x 0.3'	46R	Peg
21	UGC 12281	22 59 12.0	+13 36 18	14.8p	3.4 x 0.2	82L	Peg
22	UGC 12430	23 13 43.2	+29 00 32	14.8p	2.2 x 0.2'	64L	Peg
23	UGC 12506	23 19 30.5	+16 04 29	15.2p	2.9 x 0.2'	82L	Peg
24	UGC 12714	23 38 13.2	+32 20 06	15.4p	1.6 x 0.2'	45R	Peg
25	UGC 122	00 13 17.6	+17 01 47	14.9	2.2 X 0.3'	81L	Peg
26	UGC 433	00 41 03.6	+31 43 59	14.6p	1.9 x 0.4'	62R	And
27	NGC 891	02 22 33.4	+42 21 03	10.8b	14.3 x 2.4'	44L	And
28	UGC 12304	23 01 09.6	+05 39 14	14.7b	1.5 x 0.2'	82L	Psc
29	UGC 12423	23 13 13.2	+06 25 48	14.5b	3.5 x 0.3'	82L	Psc
30	NGC 100	00 24 02.7	+16 29 11	13.9	5.4 x 0.6'	81L	Psc
31	UGC 260	00 27 02.9	+11 35 02	13.7p	3.0 x 0.5'	81L	Psc
32	UGC 542	00 53 26.6	+29 16 12	14.2b	2.0 x 0.5'	80R	Psc
33	NGC 522	01 24 45.9	+09 59 42	13.9b	2.7 x 0.4'	100L	Psc
34	IC 194	02 03 05.3	+02 36 51	15.2p	1.4 x 0.2'	119R	Psc
35	MCG-3-2-41	00 42 15.1	-18 09 40	14.3p	3.2 x 0.4'	158R	Cet
36	MCG-2-3-16	00 47 47.5	-09 53 58	14.4	3.0 x 0.4'	140R	Cet
37	UGC 711	01 08 37.0	+01 38 29	14.4p	4.4 x 0.3'	120R	Cet
38	MCG-1-5-47	01 52 49.0	-03 26 51	13.9	2.9 x 0.4'	119R	Cet
39	IC 176	01 56 53.3	-02 01 08	14.7p	1.8 x 0.3'	119R	Cet
40	UGC 1803	02 20 29.3	+06 48 38	14.7p	2.4 x 0.3'	99R	Cet
41	UGC 2092	02 36 31.7	+07 18 35	15.1p	3.1 x 0.2'	99L	Cet
42	UGC 2441	02 58 22.1	+03 51 43	14.6p	2.1 x 0.4'	119L	Cet
43	UGC 2411	02 58 51.5	+75 44 40	16.2	4.1 x 0.2'	7R	Cas
44	UGC 1178	01 40 27.4	+34 37 26	14.7p	2.1 x 0.3'	62L	Tri
45	UGC 1281	01 49 31.4	+32 35 20	12.9p	4.5 x 0.5'	62L	Tri
46	UGC 1856	02 24 31.8	+31 36 57	14.8p	2.7 x 0.4'	61R	Tri
47	UGC 1924	02 27 49.7	+31 43 36	15.2p	2.2 x 0.3'	61R	Tri
48	NGC 973	02 34 20.5	+32 30 21	13.6p	3.7 x 0.6'	61R	Tri
49	Lowrey's Special	03 53 03.9	+35 02 23	-	-	60R	Per

Pg	Name	RA	Dec	Mag	Size	Urano	Con
50	UGC 1817	02 21 31.2	+14 11 53	14.6p	2.4 x 0.2'	99R	Ari
51	UGC 1999	02 31 52.6	+19 09 11	14.6p	3.1 x 0.4'	79R	Ari
52	UGC 2082	02 36 16.3	+25 25 25	13.7b	5.3 x 0.8'	79R	Ari
53	NGC 1110	02 49 09.4	-07 50 15	15	2.8 x 0.5'	139L	Eri
54	NGC 1145	02 54 34.1	-18 38 07	13.6b	3.2 x 0.5'	157L	Eri
55	NGC 1163	03 00 22.1	-17 09 11	14.7b	2.8 x 0.3'	139L	Eri
56	NGC 1247	03 12 14.3	-10 28 50	13.5b	3.3 x 0.5'	139L	Eri
57	MCG-3-9-41	03 25 25.0	-16 14 06	13.7	2.6 X 0.3'	138R	Eri
58	MCG-2-10-9	03 42 55.9	-12 54 58	13.5	3.1 x 0.4'	138R	Eri
59	MCG-1-10-35	03 46 35.8	-04 27 14	15	2.5 x 0.3'	118L	Eri
60	IC 2098	04 50 44.2	-05 25 07	14.5	2.5 x 0.2'	117L	Eri
61	MCG-3-15-20	05 50 27.4	-19 43 35	14.4p	2.1 x 0.3'	155L	Lep
62	UGC 3777	07 16 43.0	+29 51 19	14.6p	1.7 x 0.3'	58L	Gem
63	NGC 2357	07 17 41.0	+23 21 22	14.0p	3.5 x 0.4'	76L	Gem
64	UGC 3879	07 29 43.9	+33 41 24	15.0p	2.3 x 0.3'	57R	Gem
65	IC 2207	07 49 50.9	+33 57 43	15.2p	2.0 x 0.2'	57R	Gem
66	UGC 4171	08 01 30.8	+09 42 25	14.4p	2.3 x 0.3'	94R	Cnc
67	UGC 4299	08 15 59.0	+23 11 58	14.0b	1.8 x 0.2'	75L	Cnc
68	UGC 4550	08 43 16.8	+13 05 10	14.3p	2.7 x 0.4'	94L	Cnc
69	MCG-3-22-15	08 42 57.6	-20 03 04	16.1	2.3 x 0.4'	152R	Pyx
70	UGC 3137	04 46 15.8	+76 25 08	15.1p	3.5 x 0.3'	7L	Cam
71	UGC 3326	05 39 35.1	+77 18 45	15.3p	3.5 x 0.3'	7L	Cam
72	UGC 3474	06 32 38.7	+71 33 40	15.4p	2.2 x 0.2'	15R	Cam
73	UGC 3697	07 11 19.2	+71 50 13	13.5p	3.3 x 0.5'	15R	Cam
74	UGC 4186	08 04 13.8	+62 58 54	15.4	1.3 x 0.2'	15L	Cam
75	UGC 4078	08 04 18.7	+84 38 30	15.1p	2.0 x 0.4'	1R	Cam
76	UGC 7086	12 05 55.2	+77 30 19	15.1	2.7 x 0.3'	5R	Cam
77	NGC 2424	07 40 38.4	+39 13 59	13.6p	3.8 x 0.5'	57R	Lyn
78	UGC 4043	07 50 45.6	+54 21 43	14.8p	2.0 x 0.2'	26R	Lyn
79	UGC 4133	08 00 12.8	+56 21 11	15.1	1.0 x 0.4'	26L	Lyn
80	UGC 4148	08 00 23.5	+42 11 32	15.2p	2.5 x 0.3'	40R	Lyn
81	UGC 4277	08 13 57.6	+52 38 53	14.9p	3.9 x 0.4'	26L	Lyn
82	IC 2233	08 13 58.9	+45 44 43	12.4	4.7 x 0.5'	40L	Lyn
83	UGC 4704	08 59 01.0	+39 12 33	15.1p	2.0 x 0.9'	6L	Lyn

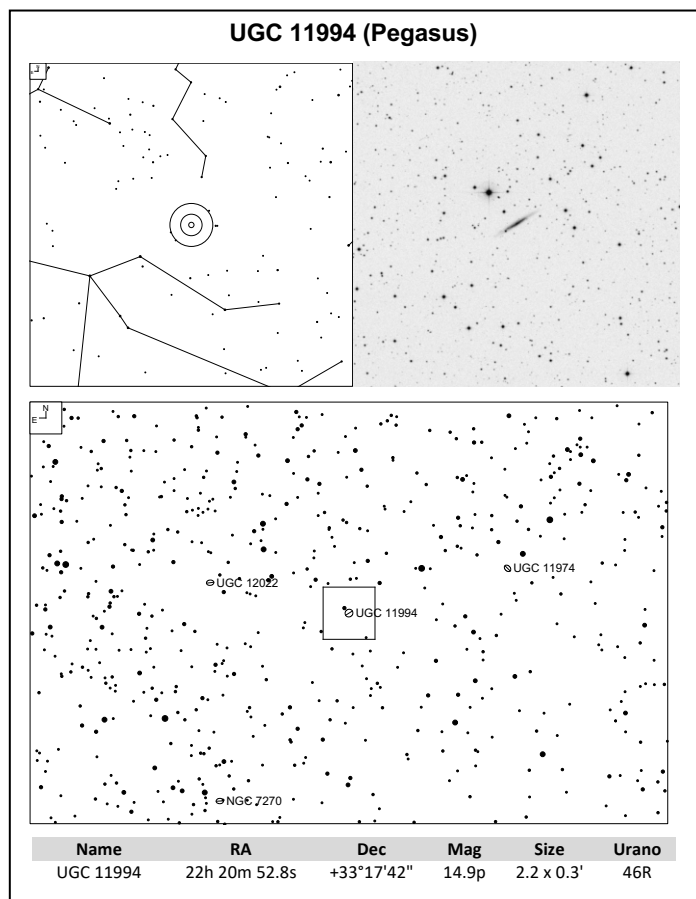
Pg	Name	RA	Dec	Mag	Size	Urano	Con
84	UGC 4872	09 15 02.4	+40 02 13	15.8	1.9 x 0.1'	56R	Lyn
85	IC 2461	09 19 57.6	+37 11 28	14.8p	2.7 x 0.5'	56R	Lyn
86	UGC 5164	09 40 49.8	+11 33 11	14.6	1.1 x 0.1'	93L	Leo
86	UGC 5173	09 41 32.2	+11 24 47	14.7p	2.3 x 0.2'	93L	Leo
87	UGC 5267	09 49 52.9	+09 05 45	14.9p	1.6 x 0.2'	93L	Leo
88	UGC 5341	09 56 35.9	+20 38 44	15.0p	2.9 x 0.2'	74L	Leo
89	UGC 5495	10 11 53.3	+16 26 24	14.3p	3.0 x 0.3'	93L	Leo
90	UGC 5509	10 13 32.3	+20 10 32	15.1p	1.4 x 0.2'	73R	Leo
91	NGC 3279	10 34 42.7	+11 11 54	13.9p	2.9 x 0.3'	92R	Leo
92	NGC 3454	10 54 28.8	+17 20 38	14.2p	2.6 x 0.4'	92L	Leo
93	NGC 3501	11 02 47.3	+17 59 21	13.6p	4.6 x 0.6'	73L	Leo
94	MCG-1-30-2	11 34 20.2	-06 23 23	14.5	1.5 x 0.2'	132R	Leo
95	UGC 6594	11 37 38.4	+16 33 18	14.4p	2.5 x 0.3'	91R	Leo
96	UGC 6686	11 43 21.6	+16 29 06	15.0b	2.6 x 0.3'	91R	Leo
97	UGC 6791	11 49 23.8	+26 44 27	15.0p	1.9 x 0.4'	72R	Leo
98	NGC 3245A	10 27 01.1	+28 38 22	14.7p	4.2 x 0.4'	73R	LMi
99	NGC 3432	10 52 31.0	+36 37 12	11.7b	6.8 x 1.4'	55L	LMi
100	NGC 3044	09 53 40.5	+01 34 45	12.5b	4.9 x 0.7'	113L	Sex
101	UGC 5245	09 47 33.6	-02 01 57	14.7p	2.5 x 0.3'	113L	Sex
102	UGC 5708	10 31 13.4	+04 28 14	13.8p	3.4 x 0.6'	112R	Sex
103	MCG-1-26-12	10 02 36.0	-06 00 49	15.7	2.8 x 0.3'	133R	Sex
104	NGC 3365	10 46 12.0	+01 48 46	13.2b	4.4 x 0.7'	112R	Sex
105	MCG-3-24-1 UGCA 151	09 11 54.7	-20 07 09	14.4p	4.1 x 0.3'	152R	Hya
106	MCG-3-28-15 UGCA 221	10 51 24.0	-19 53 32	13.8p	3.3 x 0.4'	151L	Hya
107	UGC 4719	09 00 38.2	+50 40 43	14.9p	2.3 x 0.2'	39R	UMa
108	NGC 2820	09 21 47.1	+64 15 28	12.8v	5.5 x 0.7'	14R	UMa
109	UGC 5421	10 04 41.8	+55 18 45	18	1.7 x 0.3'	25L	UMa
110	UGC 5459	10 08 09.6	+53 05 02	13.2b	4.7 x 0.7'	25L	UMa
111	UGC 6378	11 22 07.3	+69 38 02	14.7p	2.7 x 0.2'	13R	UMa
112	UGC 6667	11 42 26.3	+51 35 52	14.2p	3.7 x 0.6'	24R	UMa
113	UGC 6802	11 50 07.2	+51 51 19	15.9	2.3 x 0.3'	24R	UMa
114	NGC 4157	12 11 04.8	+50 29 07	12.2	7.7 x 1.3'	37R	UMa

Pg	Name	RA	Dec	Mag	Size	Urano	Con
115	UGC 8040	12 54 43.8	+58 46 38	14.7p	1.4 x 0.1'	23R	UMa
116	UGC 8146	13 02 07.7	+58 42 01	14.4p	3.4 x 0.3'	23R	UMa
117	NGC 5526	14 13 55.2	+57 46 16	14.3	1.9 x 0.2'	23L	UMa
118	NGC 4183	12 13 17.2	+43 41 48	12.9b	6.3 x 0.8'	37R	CVn
119	NGC 4244	12 17 30.0	+37 48 27	10.3v	17.7 x 1.9'	54L	CVn
120	UGC 7125	12 08 42.0	+36 48 11	14.2p	4.7 x 0.7'	54L	CVn
121	UGC 7774	12 36 24.0	+40 00 18	14.8p	3.8 x 0.5'	54L	CVn
122	UGC 7993	12 50 31.2	+52 07 23	15.1p	2.3 x 0.4'	24L	CVn
123	NGC 5023	13 12 12.0	+44 02 19	12.9b	6.7 x 0.7'	37L	CVn
124	NGC 5229	13 34 03.1	+47 54 50	14.3p	3.8 x 0.5'	37L	CVn
125	IC 755	12 01 10.3	+14 06 20	13.3v	2.4 x 0.3'	91L	Com
126	UGC 7170	12 10 36.0	+18 49 44	15.0p	3.0 x 0.2'	72L	Com
127	NGC 4173	12 12 20.9	+29 12 28	13.6b	5.0 x 0.7'	72L	Com
128	NGC 4222	12 16 22.4	+13 18 26	13.9b	4.0 x 0.6'	91L	Com
129	UGC 7321	12 17 34.1	+22 32 27	14.2b	5.5 x 0.3'	72L	Com
130	NGC 4338	12 23 13.9	+28 53 37	15.3p	2.3 x 0.4'	72L	Com
131	NGC 4565	12 36 21.1	+25 59 06	10.4b	15.9 x 1.8'	72L	Com
132	NGC 4738	12 51 09.6	+28 47 17	14.2b	2.3 x 0.4'	71R	Com
133	UGC 8025	12 54 02.4	+29 36 14	14.8p	2.1 x 0.4'	53R	Com
134	IC 716	11 39 03.1	-00 12 20	14.8p	1.6 x 0.2'	111R	Vir
135	NGC 4197	12 14 38.4	+05 48 24	13.4b	3.4 x 0.5'	91L	Vir
136	IC 3074	12 15 45.6	+10 42 00	14.7b	2.3 x 0.3'	91L	Vir
137	IC 3099	12 17 09.4	+12 27 13	14.9p	1.9 x 0.2'	91L	Vir
138	MCG-1-32-4	12 20 48.0	-06 58 19	15.7	1.4 x 0.2'	132L	Vir
139	NGC 4289	12 21 02.2	+03 43 16	14.6b	3.8 x 0.3'	111L	Vir
140	NGC 4330	12 23 16.8	+11 22 05	13.1b	4.4 x 0.8'	91L	Vir
141	NGC 4356	12 24 14.9	+08 32 15	14.0p	2.8 x 0.5'	91L	Vir
142	IC 3311	12 25 33.1	+12 15 38	14.9p	2.9 x 0.3'	91L	Vir
143	IC 3322A	12 25 43.2	+07 13 04	13.6b	3.8 x 0.5'	91L	Vir
144	UGC 7522	12 25 57.6	+03 25 47	14.5b	2.8 x 0.3'	111L	Vir
145	UGC 7607	12 28 52.6	+04 17 40	15.5p	2.2 x 0.2'	111L	Vir
146	IC 3474	12 32 36.5	+02 39 41	14.8p	3.1 x 0.4'	111L	Vir
147	NGC 4517	12 32 45.6	+00 06 53	11.1b	11.2 x 1.5'	111L	Vir
148	UGC 7802	12 38 21.6	+07 53 28	15.0p	1.9 x 0.3'	90R	Vir

Pg	Name	RA	Dec	Mag	Size	Urano	Con
149	IC 3608	12 38 37.4	+10 28 34	14.6p	3.1 x 0.4'	90R	Vir
150	NGC 4703	12 49 19.2	-09 06 31	14.5	4.0 x 0.7'	131R	Vir
151	NGC 4700	12 49 07.7	-11 24 42	12.6p	3.0 x 0.5'	131R	Vir
152	UGC 7991	12 50 39.1	+01 27 52	14.8p	1.7 x 0.2'	110R	Vir
153	MCG-1-33-32	12 52 26.4	-09 45 13	16	2.9 x 0.3'	131R	Vir
154	UGC 8067	12 57 12.0	-01 42 25	14.2p	2.0 x 0.3'	110R	Vir
155	MCG-1-33-60 UGCA 311	12 57 46.7	-09 37 56	13.5	3.1 x 0.3'	131R	Vir
156	MCG-1-33-71	13 01 49.4	-08 20 10	15.2	3.1 x 0.4'	131R	Vir
157	MCG-3-33-28	13 02 26.4	-17 40 48	14.6	3.4 x 0.3'	149R	Vir
158	MCG-3-33-30 UGCA 320	13 03 15.6	-17 25 13	13.5b	7.1 x 0.8'	131R	Vir
159	MCG-3-34-18	13 13 05.0	-19 58 38	14.0p	3.1 x 0.4'	149R	Vir
160	NGC 5073	13 13 21.6	-14 50 38	13.1	3.4 x 0.6'	131R	Vir
161	NGC 5022	13 13 30.7	-19 32 49	13.7p	2.4 x 0.3'	149R	Vir
162	MCG-3-34-41	13 17 07.2	-16 15 18	15.9	3.0 x 0.3'	131R	Vir
163	NGC 5170	13 29 48.7	-17 57 57	12.1b	8.4 x 1.0'	149L	Vir
164	UGC 8543	13 34 03.6	+04 45 14	14.5p	2.0 x 0.5'	110L	Vir
165	NGC 5496	14 11 37.9	-01 09 28	12.7p	4.7 x 0.8'	109R	Vir
166	MCG-3-30-3	11 37 59.5	-17 14 01	15.2	2.1 x 0.3'	132R	Crt
167	IC 3799	12 48 59.7	-14 23 57	14.3	2.6 x 0.3'	131R	Crv
168	MCG-3-38-8 UGCA 394	14 47 24.0	-17 26 32	13.5	3.1 x 0.5'	130L	Lib
169	MCG-3-38-31	14 57 29.8	-18 27 13	15.2p	2.1 x 0.3'	148L	Lib
170	NGC 5777	14 51 19.2	+58 58 41	14.1p	3.1 x 0.4'	23L	Dra
171	NGC 5907	15 15 53.9	+56 19 38	11.1b	12.9 x 1.3'	22R	Dra
172	NGC 5965	15 34 02.4	+56 41 13	12.6b	5.2 x 0.7'	22R	Dra
173	NGC 5981	15 37 53.3	+59 23 29	13.9b	3.1 x 0.6'	22R	Dra
174	UGC 10561	16 46 36.5	+62 49 22	15.1p	2.4 x 0.2'	11R	Dra
175	UGC 11435	19 23 51.6	+55 59 15	14.9p	2.0 x 0.3'	20R	Dra
176	UGC 11455	19 29 57.6	+72 06 47	15.0p	2.6 x 0.3'	10L	Dra
177	NGC 5529	14 15 34.3	+36 13 36	12.8b	6.2 x 0.8'	52R	Boo
178	UGC 9138	14 16 47.0	+23 00 10	15.2p	1.9 x 0.2'	70R	Boo
179	UGC 9169	14 19 44.9	+09 21 47	13.5p	4.2 x 0.9'	89R	Boo

Pg	Name	RA	Dec	Mag	Size	Urano	Con
180	UGC 9242	14 25 20.9	+39 32 22	14.1b	5.0 x 0.4'	52R	Boo
181	UGC 9249	14 27 00.0	+08 41 03	14.7p	2.1 x 0.2'	89L	Boo
182	UGC 9422	14 37 13.7	+43 41 46	15.3p	1.8 x 0.2'	36L	Boo
183	NGC 5714	14 38 11.4	+46 38 19	14.1p	4.4 x 0.5'	36L	Boo
184	UGC 9780	15 14 01.0	+44 35 27	15.3p	2.0 x 0.2'	35R	Boo
185	UGC 9856	15 26 28.7	+41 17 31	15.3p	2.2 x 0.3'	35R	Boo
186	UGC 10227	16 08 58.6	+36 36 38	15.3p	2.3 x 0.2'	51L	CrB
187	UGC 10297	16 15 28.8	+18 54 18	15.0p	2.0 x 0.2'	69L	Her
188	UGC 11320	18 40 48.0	+23 41 02	14.9p	1.9 x 0.2'	67R	Her
189	UGC 9760	15 12 02.6	+01 41 56	14.7p	2.4 x 0.2'	108R	Ser
190	UGC 9841	15 25 33.6	+18 16 41	14.3p	2.4 x 0.4'	69R	Ser
191	UGC 9977	15 41 59.5	+00 42 47	13.9p	3.8 x 0.4'	108L	Ser
192	UGC 10043	15 48 41.3	+21 52 06	14.8p	2.6 x 0.4'	69R	Ser
193	IC 1197	16 08 17.3	+07 32 20	14.1p	2.9 x 0.4'	88L	Ser
194	UGC 10288	16 14 25.2	-00 12 24	14.2b	4.8 x 0.5'	107R	Ser
195	UGC 10738	17 11 04.8	+05 51 08	15.1p	1.7 x 0.2'	87L	Oph
196	UGC 11093	18 01 51.7	+06 58 00	13.7p	3.1 x 0.5'	86L	Oph
197	MCG-1-53-12	20 49 52.8	-07 01 18	14.6	3.0 x 0.3'	125R	Aqr

How to Use the Atlas



The upper left quadrant contains the naked eye star chart with a TelRad™ superimposed on the center of the Flat Galaxy. The field is 30 degrees square with a limiting stellar magnitude of 6.0. The upper right quadrant contains a 15' square field image from the Digital Sky Survey (DSS).

The bottom panel is a finder chart of about 4.8° across and 3.0° high. The finder field is wide enough for the finder scope and detailed enough for those who choose to use a low-power eyepiece as a “finder”. The limiting magnitude of the field stars is generally set to 12.0 but set to a lower limit in star-rich regions. A magnitude scale is provided on the bottom left. The field of the DSS image is superimposed as a square in the middle of the finder chart.

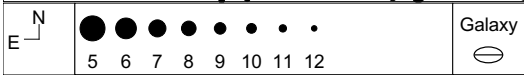
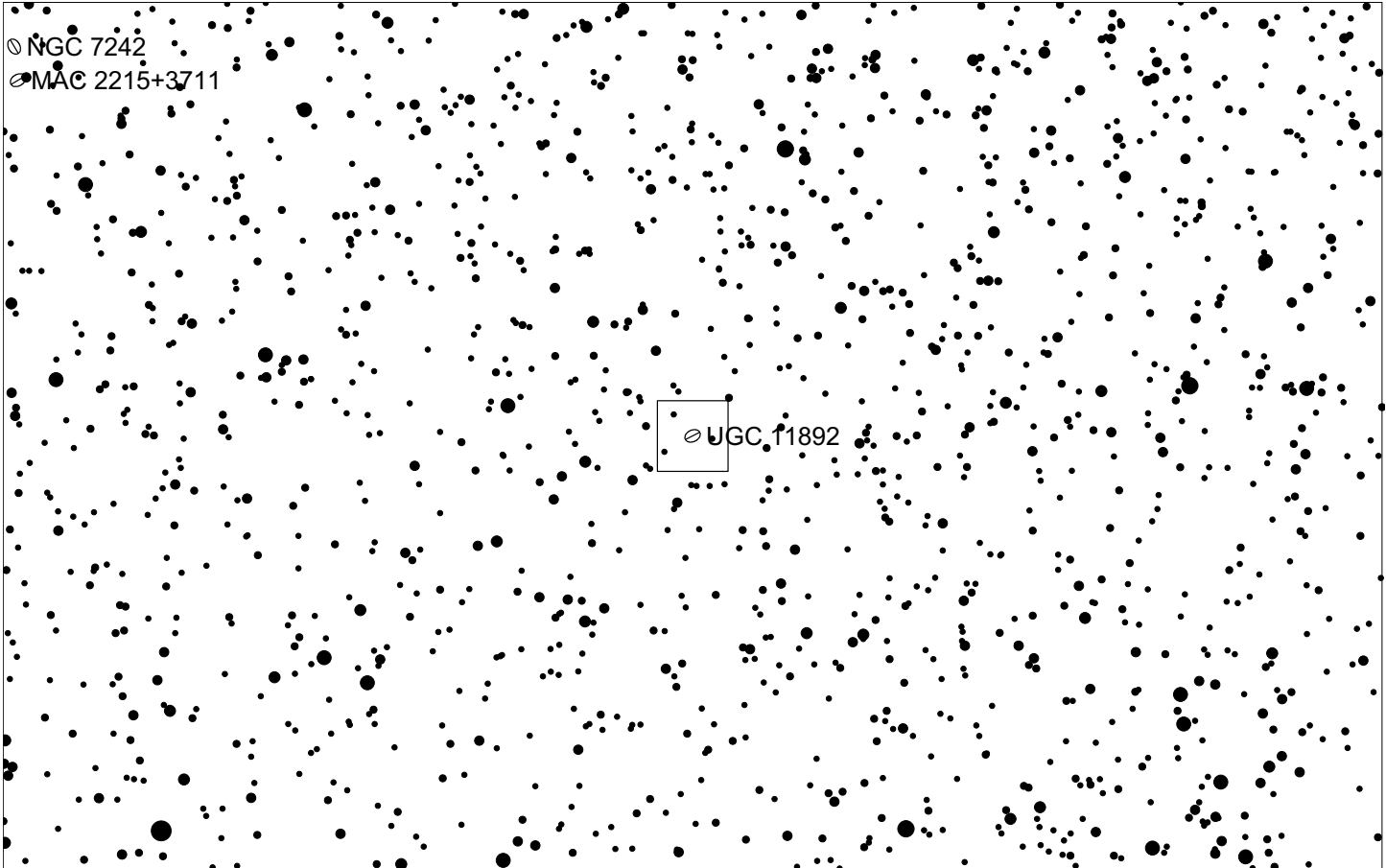
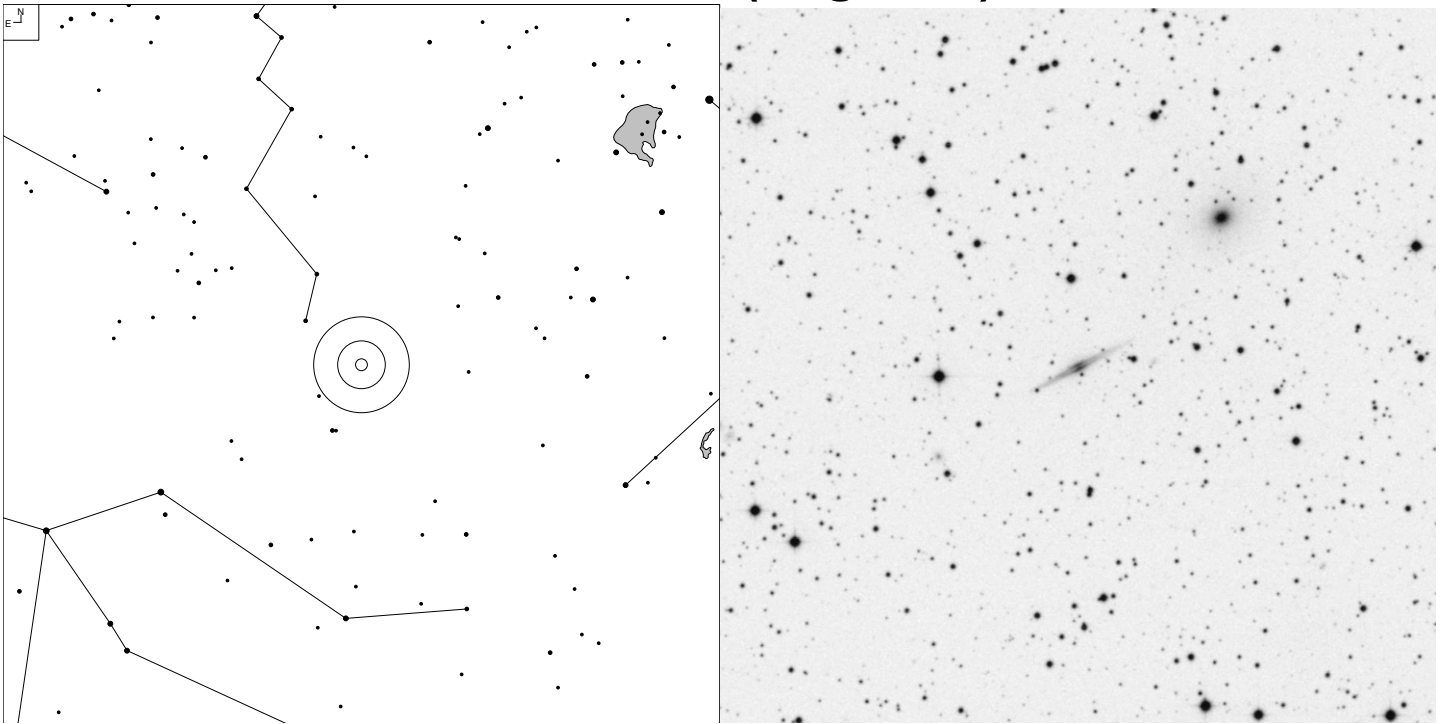
A table is provided below giving basic information of the flat galaxy.

- **RA** and **Dec** are in Epoch 2000.0
- **Magnitude** is given along with the **Size**. The source of the magnitude is generally from MegaStar, which is pulled from RC3 (Third Reference Catalogue of Bright Galaxies). When the mag and/or size is not available, I've used the data from NED.
- **Urano** lists the page followed by **Left** or **Right** for the panel side. The edition used is Uranometria 2000.0.

The images and charts are oriented north pointed up and west to the right.

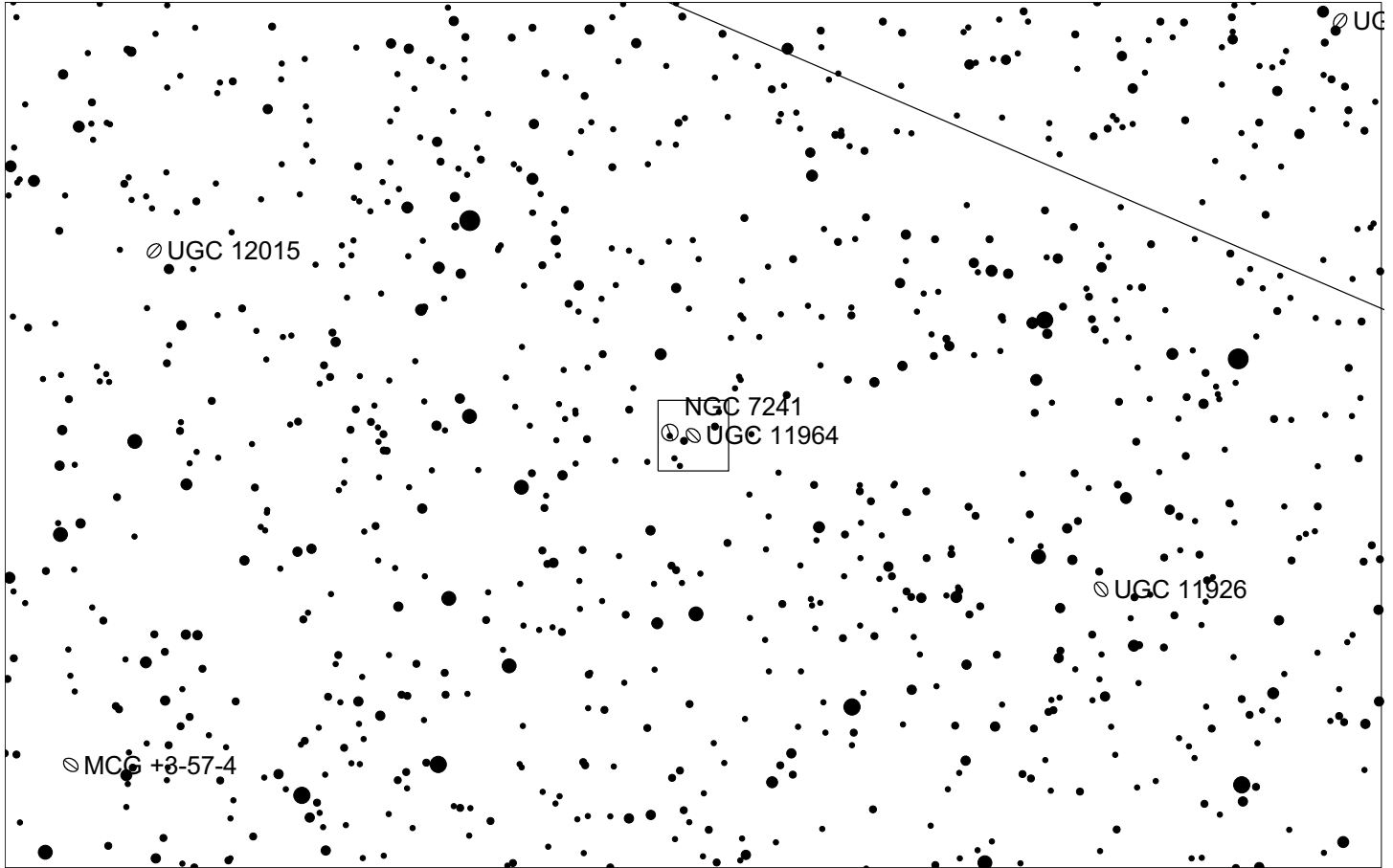
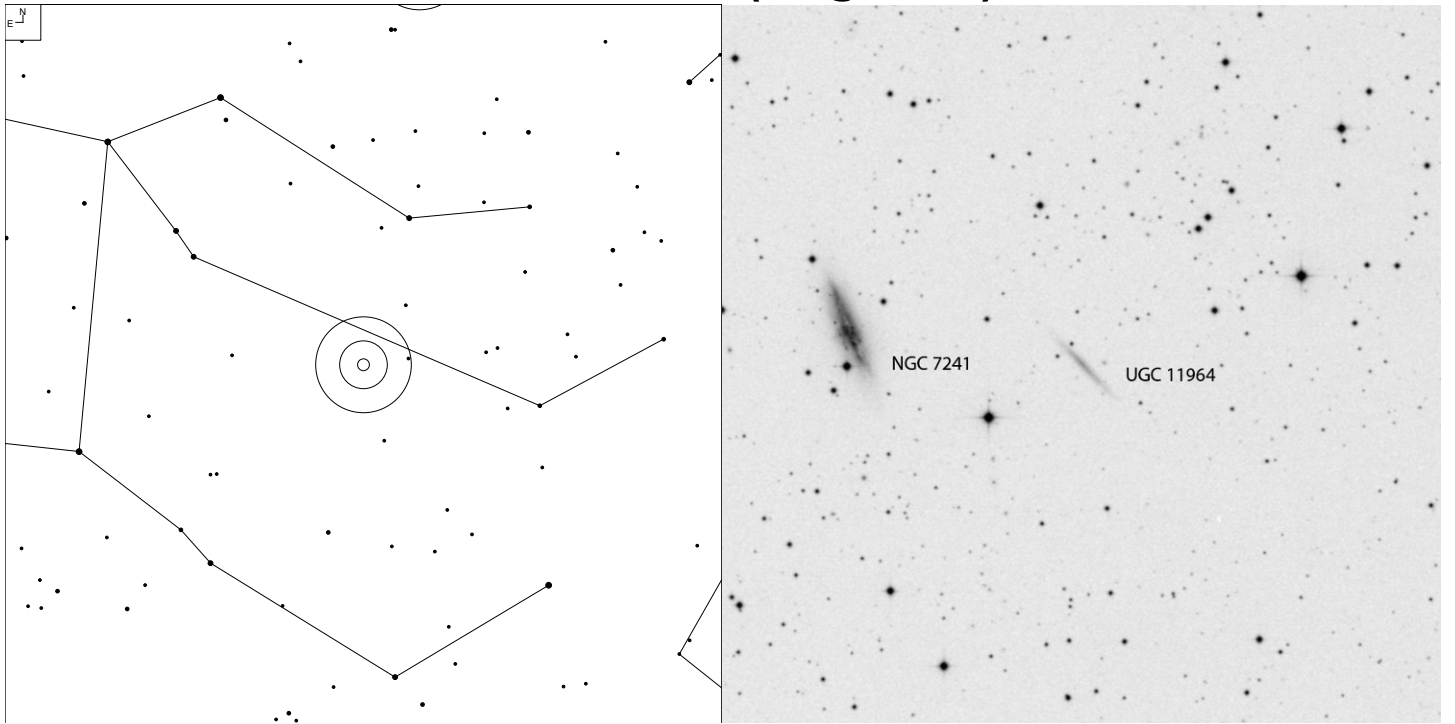
The Flat Galaxy Observing Atlas

UGC 11893 (Pegasus)



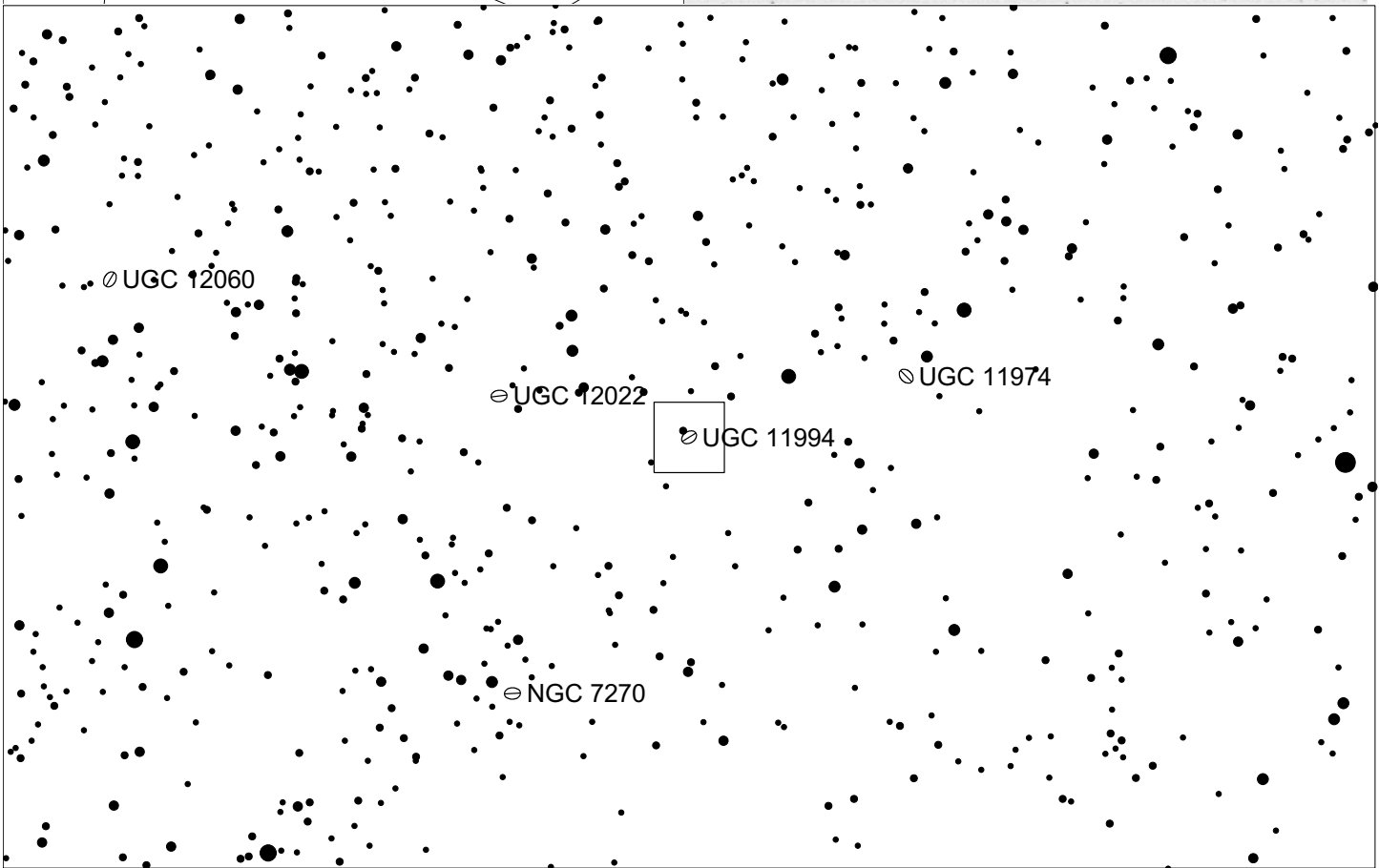
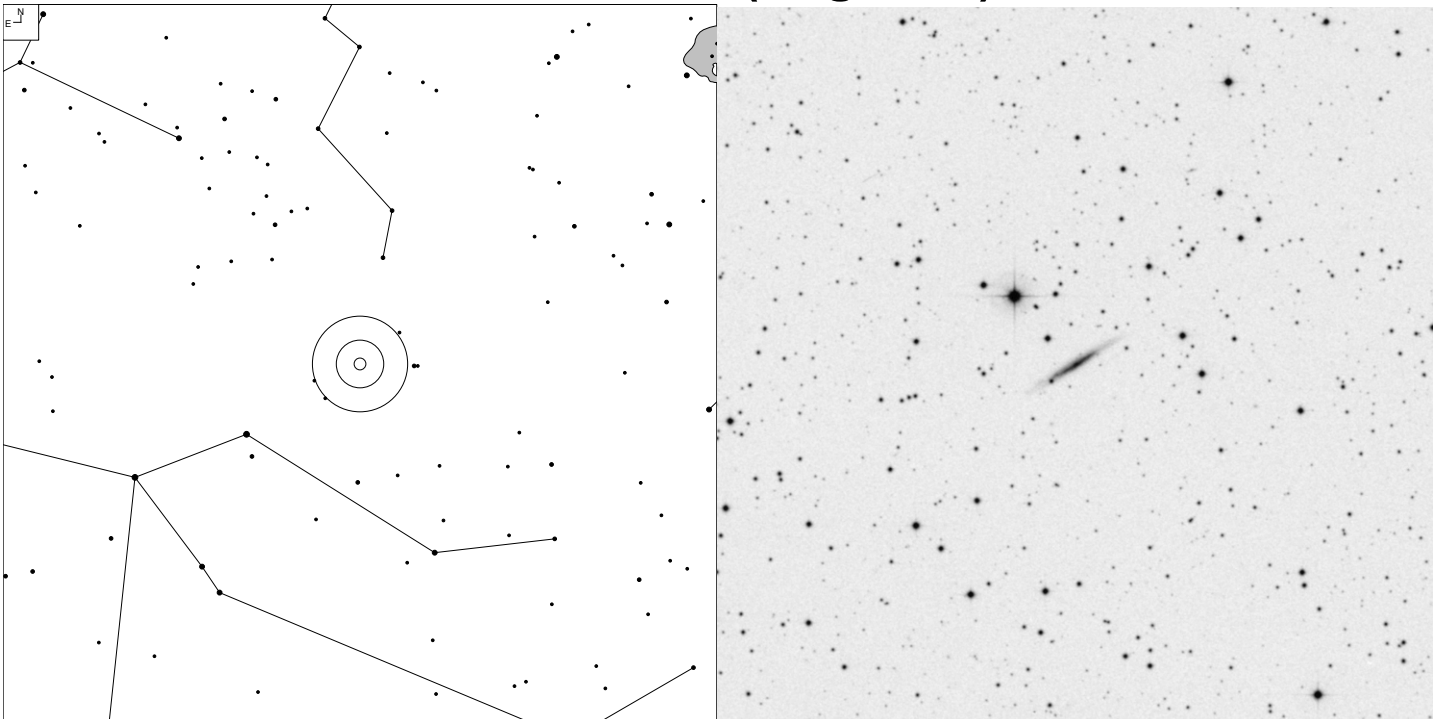
Name	RA	Dec	Mag	Size	Urano
UGC 11893	22h 04m 07.2s	+35°56'17"	15.2	2.2 x 0.3'	46R

UGC 11964 (Pegasus)



Name	RA	Dec	Mag	Size	Urano
UGC 11964	22h 15m 28.8s	+19°13'12"	14.5	1.9 x 0.1'	64R

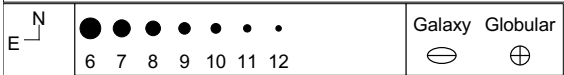
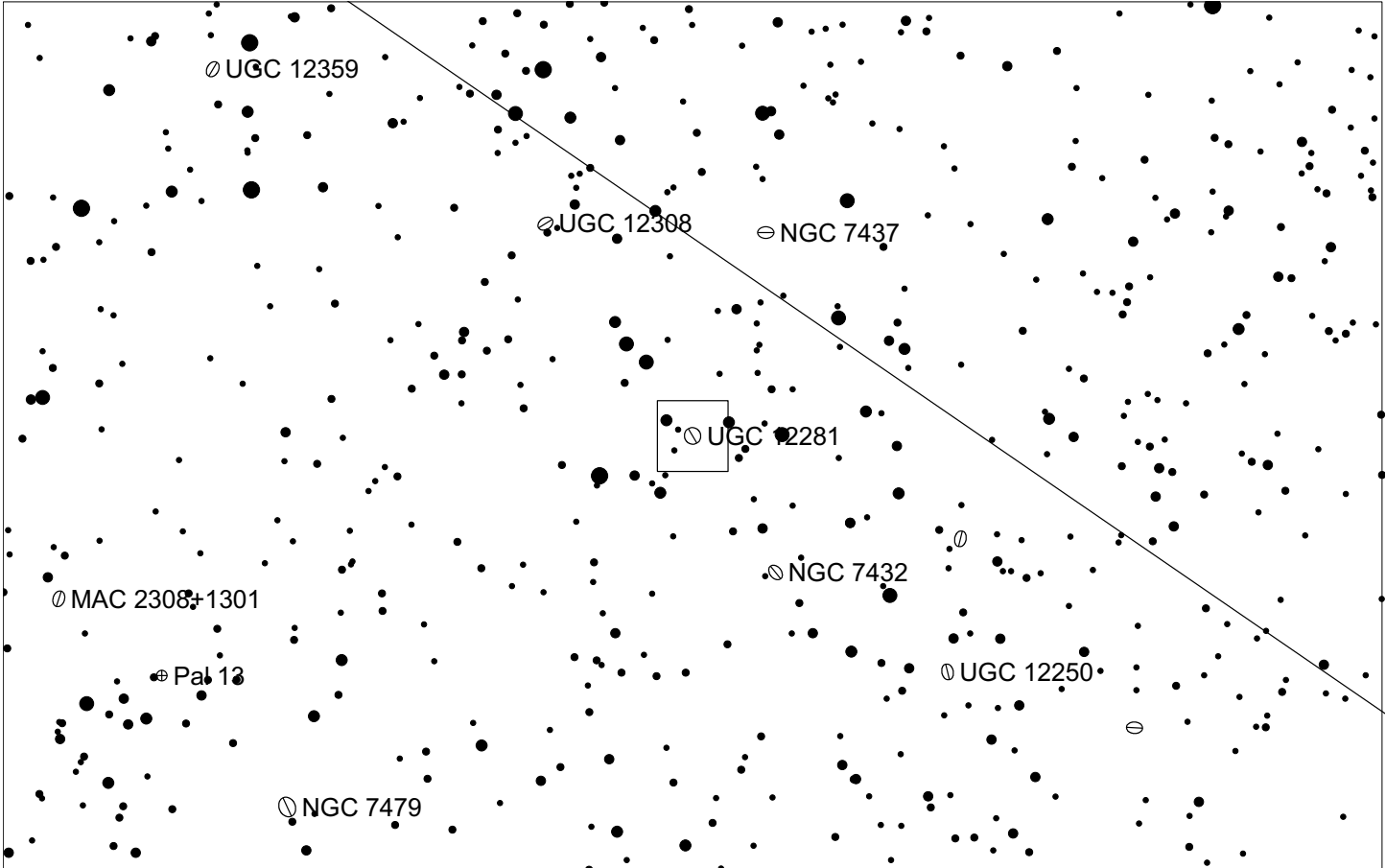
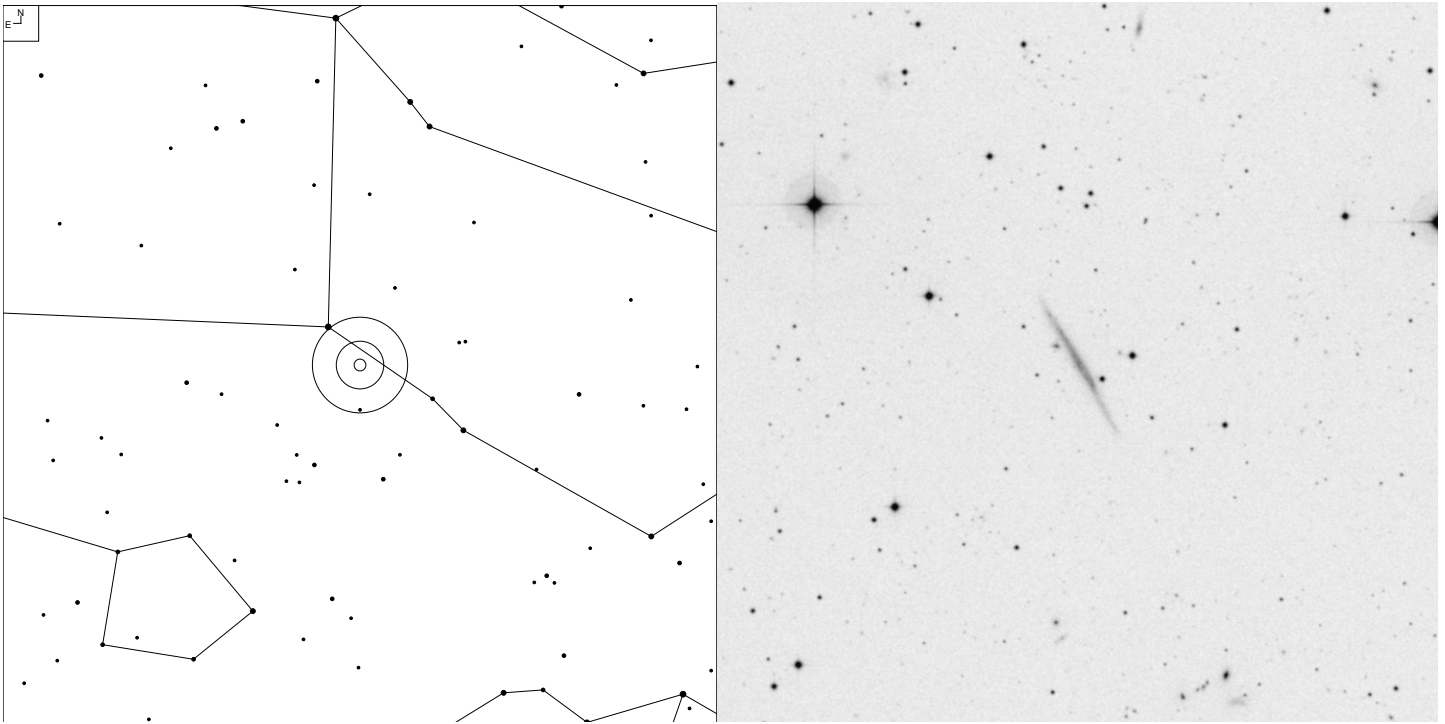
UGC 11994 (Pegasus)



Galaxy

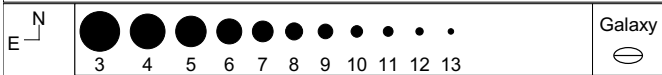
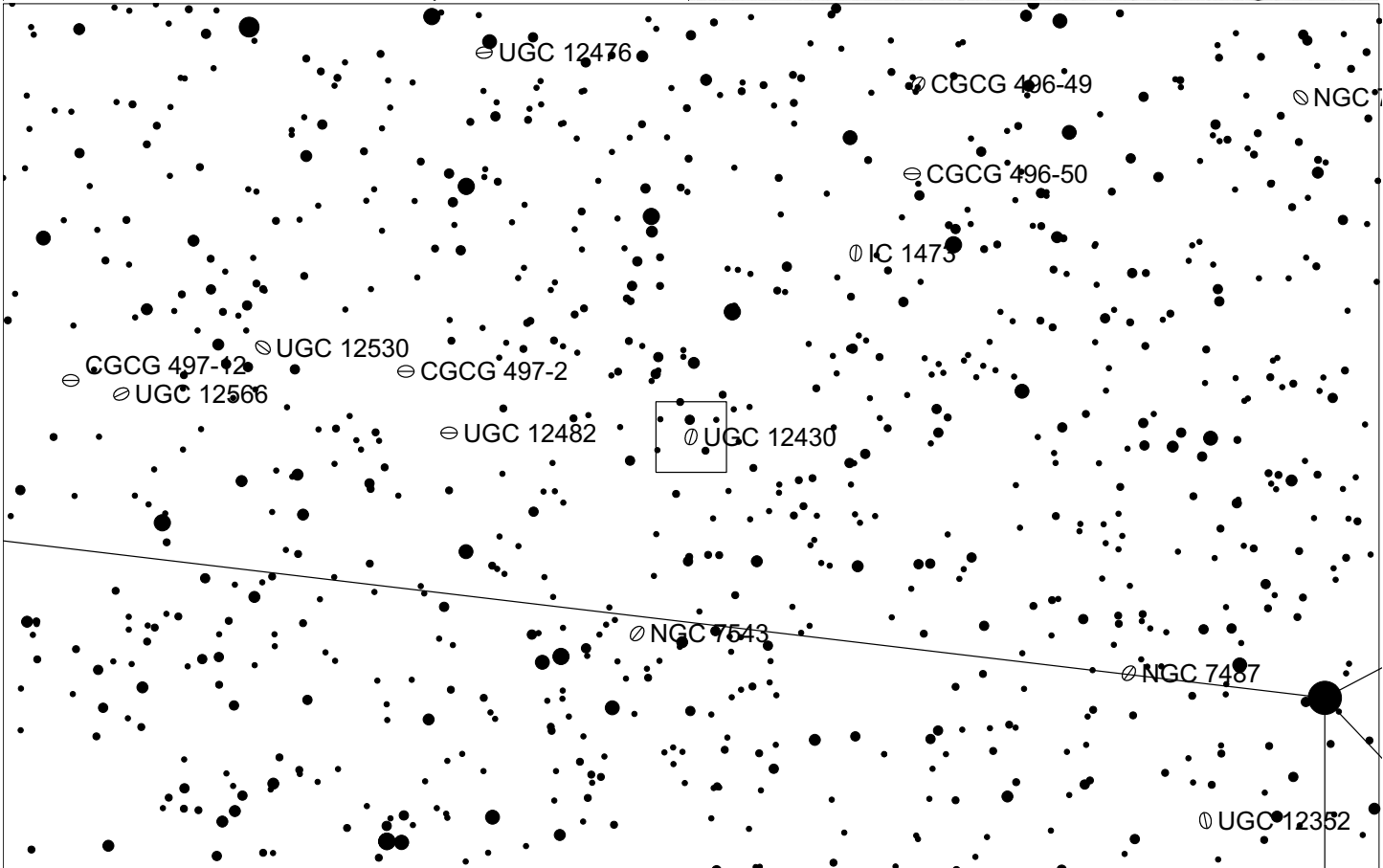
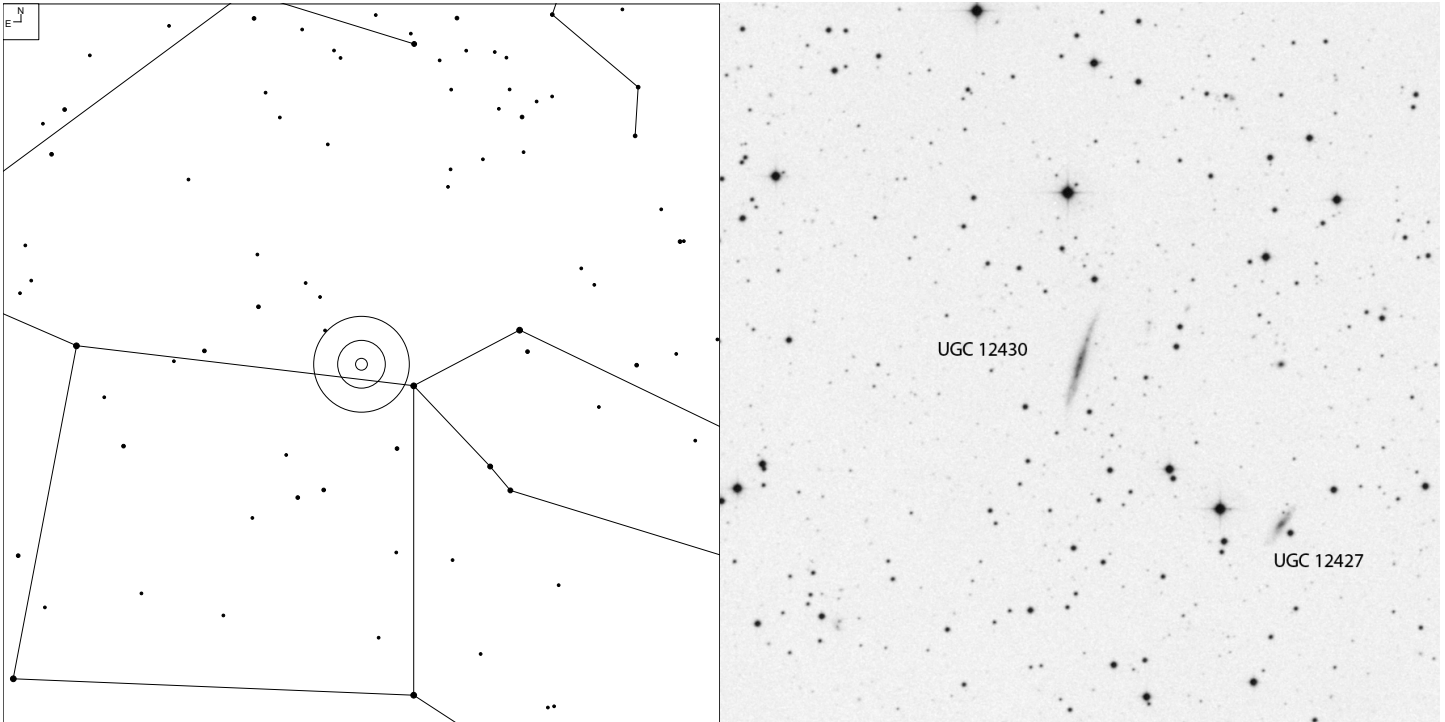
Name	RA	Dec	Mag	Size	Urano
UGC 11994	22h 20m 52.8s	+33°17'42"	14.9p	2.2 x 0.3'	46R

UGC 12281 (Pegasus)



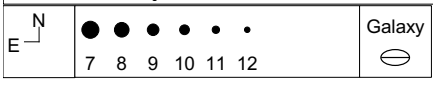
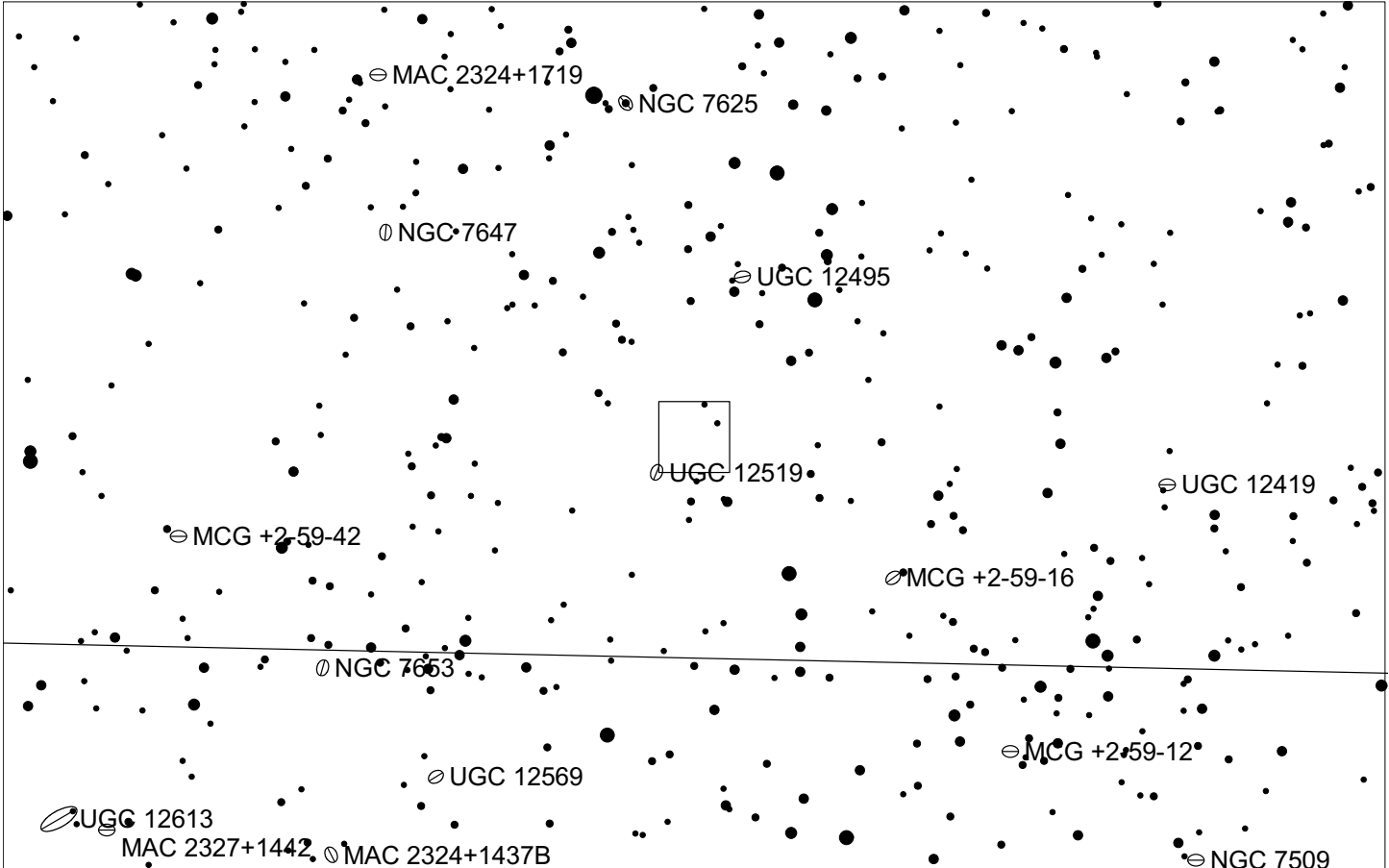
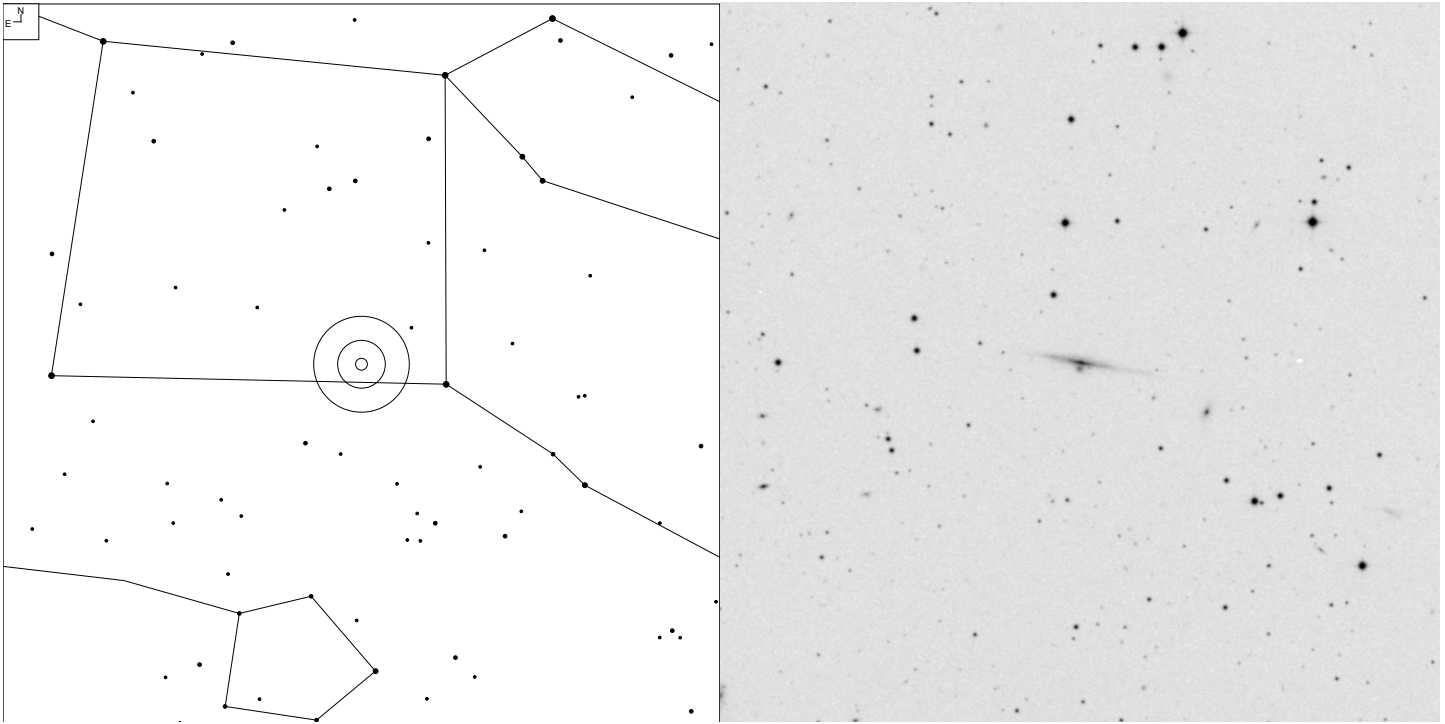
Name	RA	Dec	Mag	Size	Urano
UGC 12281	22h 59m 12.0s	+13°36'18"	14.8p	3.4 x 0.2	82L

UGC 12430 (Pegasus)



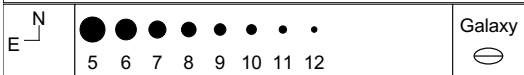
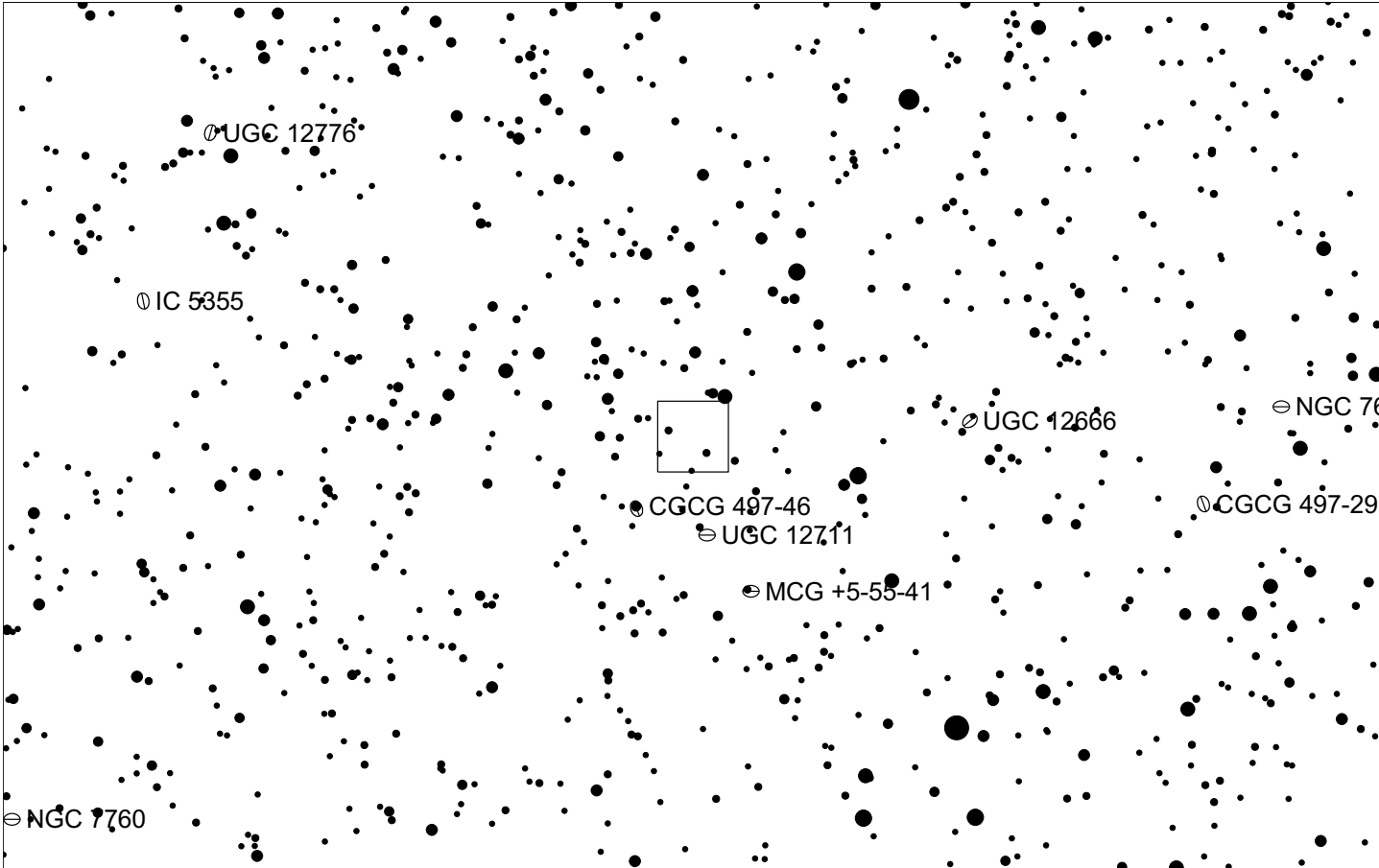
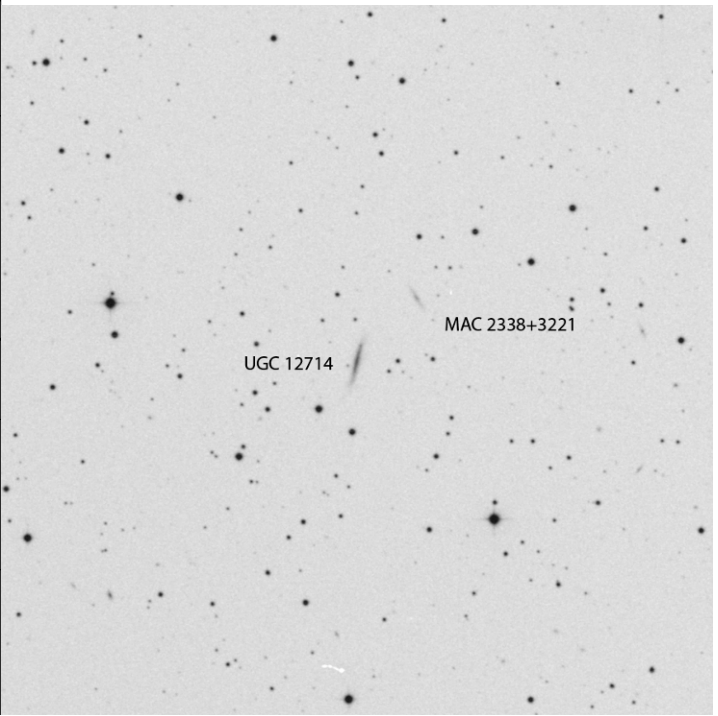
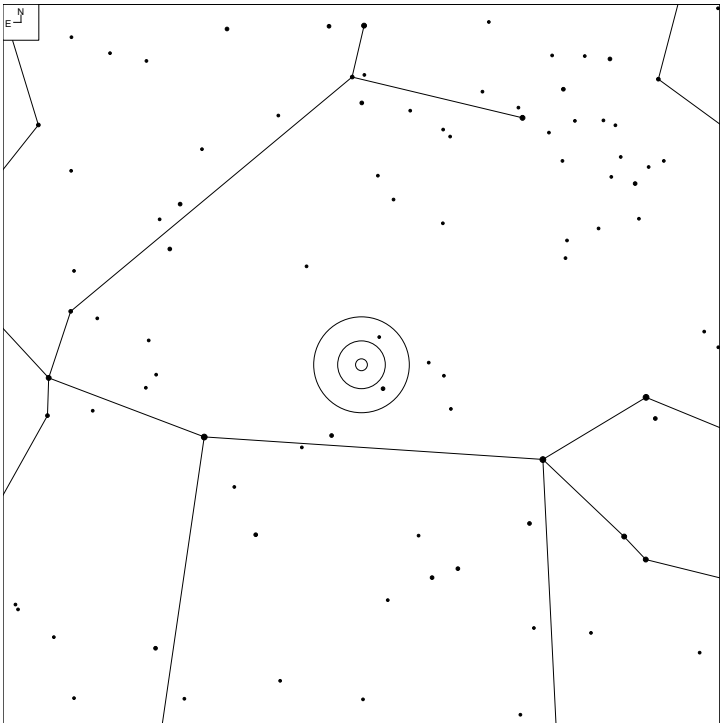
Name	RA	Dec	Mag	Size	Urano
UGC 12430	23h 13m 43.2s	+29°00'32"	14.8p	2.2 x 0.2'	64L

UGC 12506 (Pegasus)



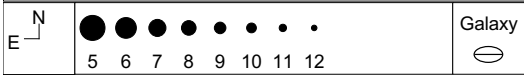
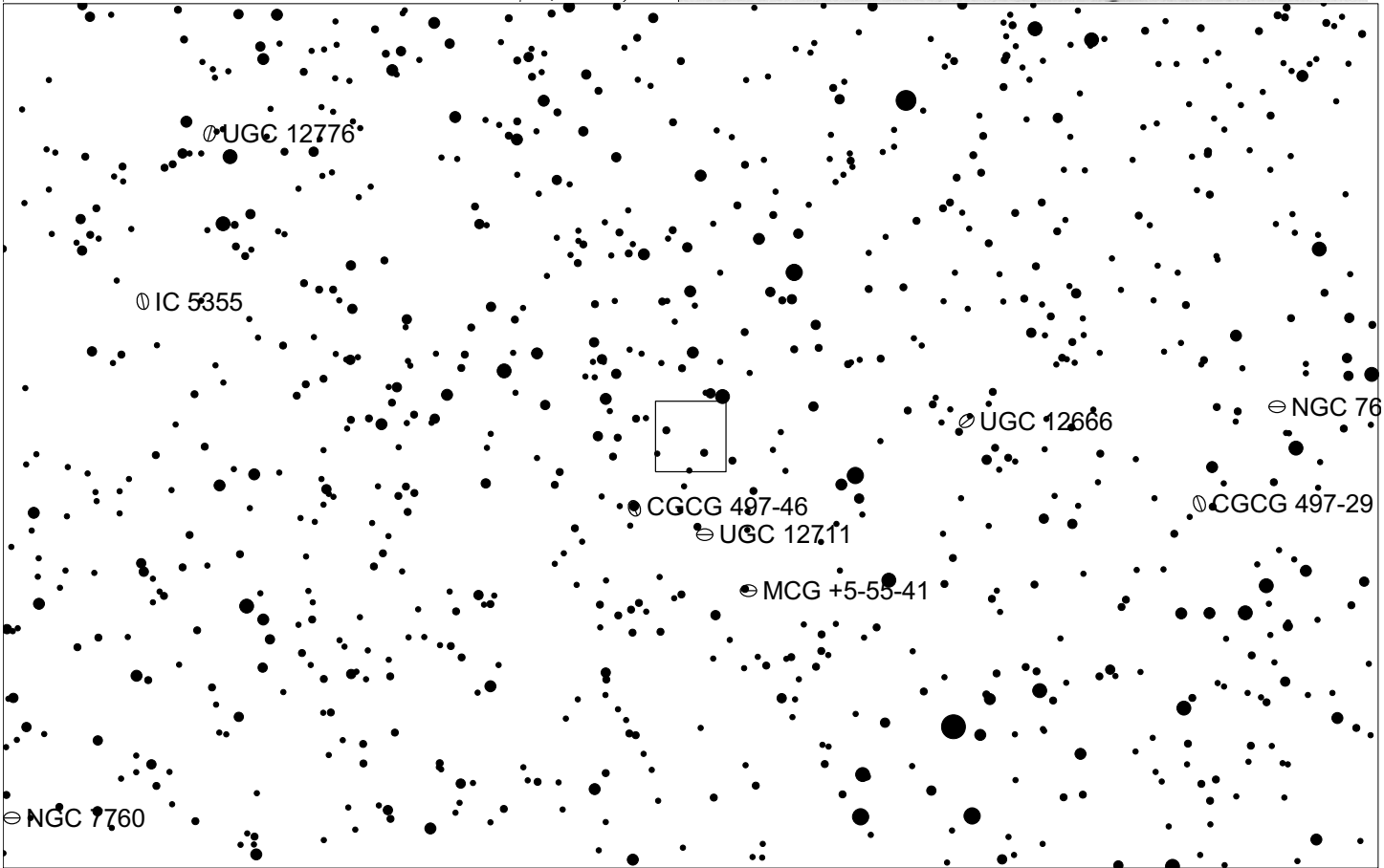
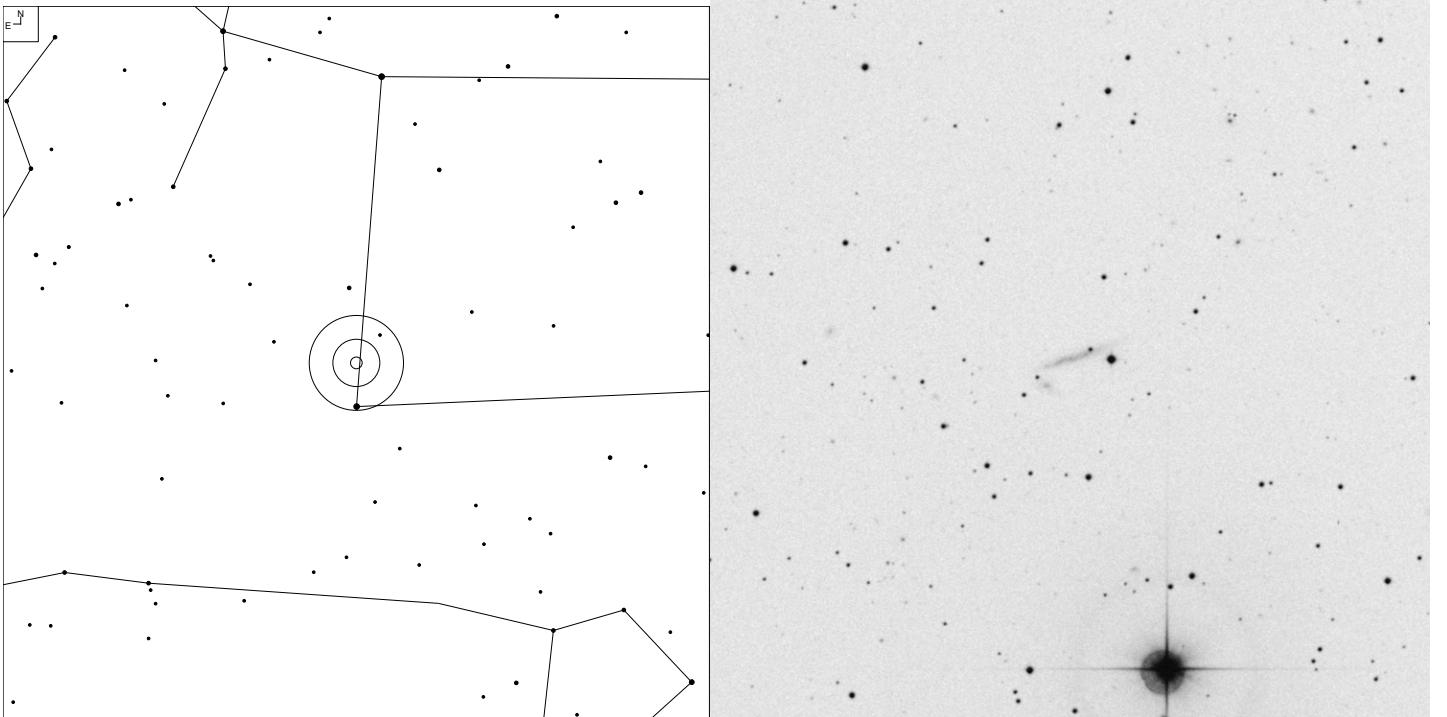
Name	RA	Dec	Mag	Size	Urano
UGC 12506	23h 19m 30.5s	+16°04'29"	15.2p	2.9 x 0.2'	82L

UGC 12714 (Pegasus)



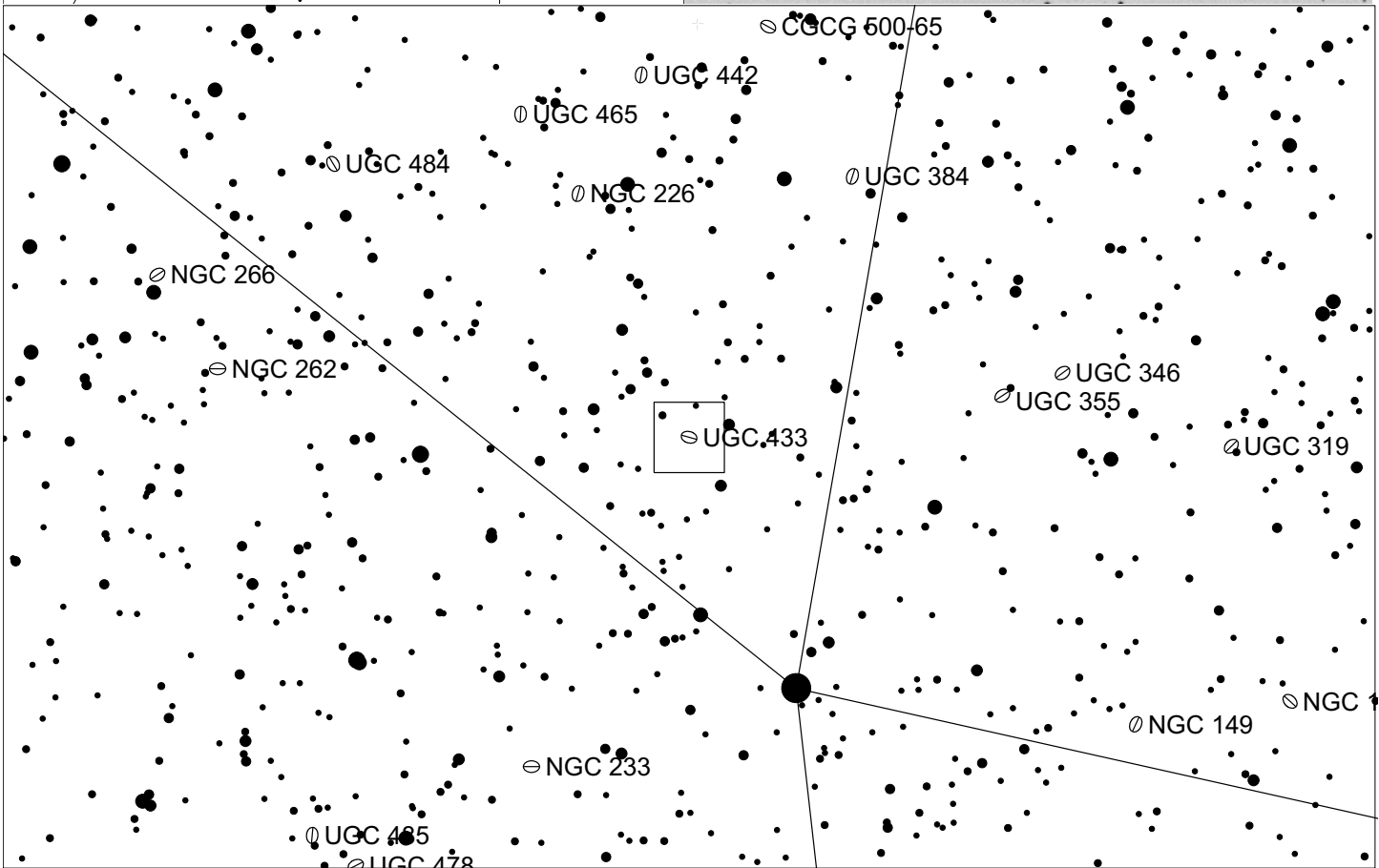
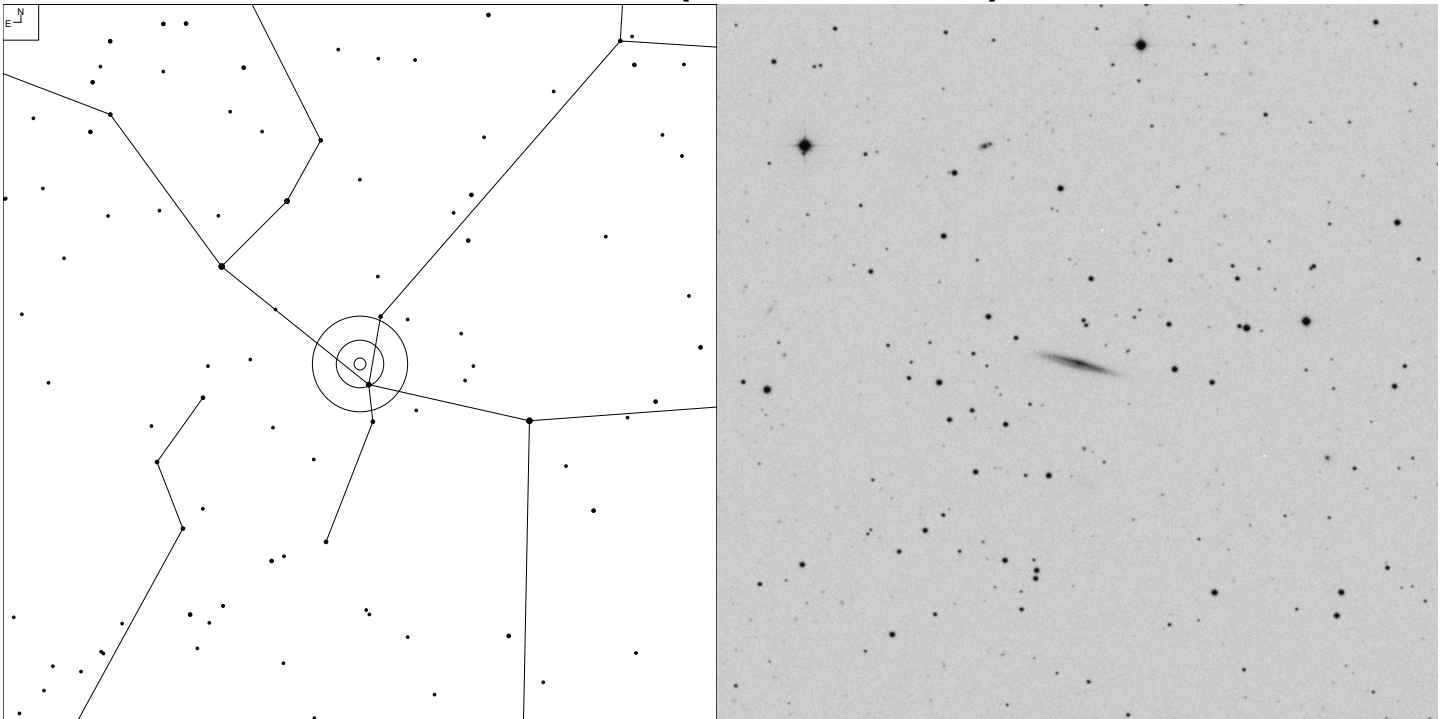
Name	RA	Dec	Mag	Size	Urano
UGC 12714	23h 38m 13.2s	+32°20'06"	15.4p	1.6 x 0.2'	45R

UGC 122 (Pegasus)



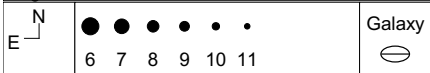
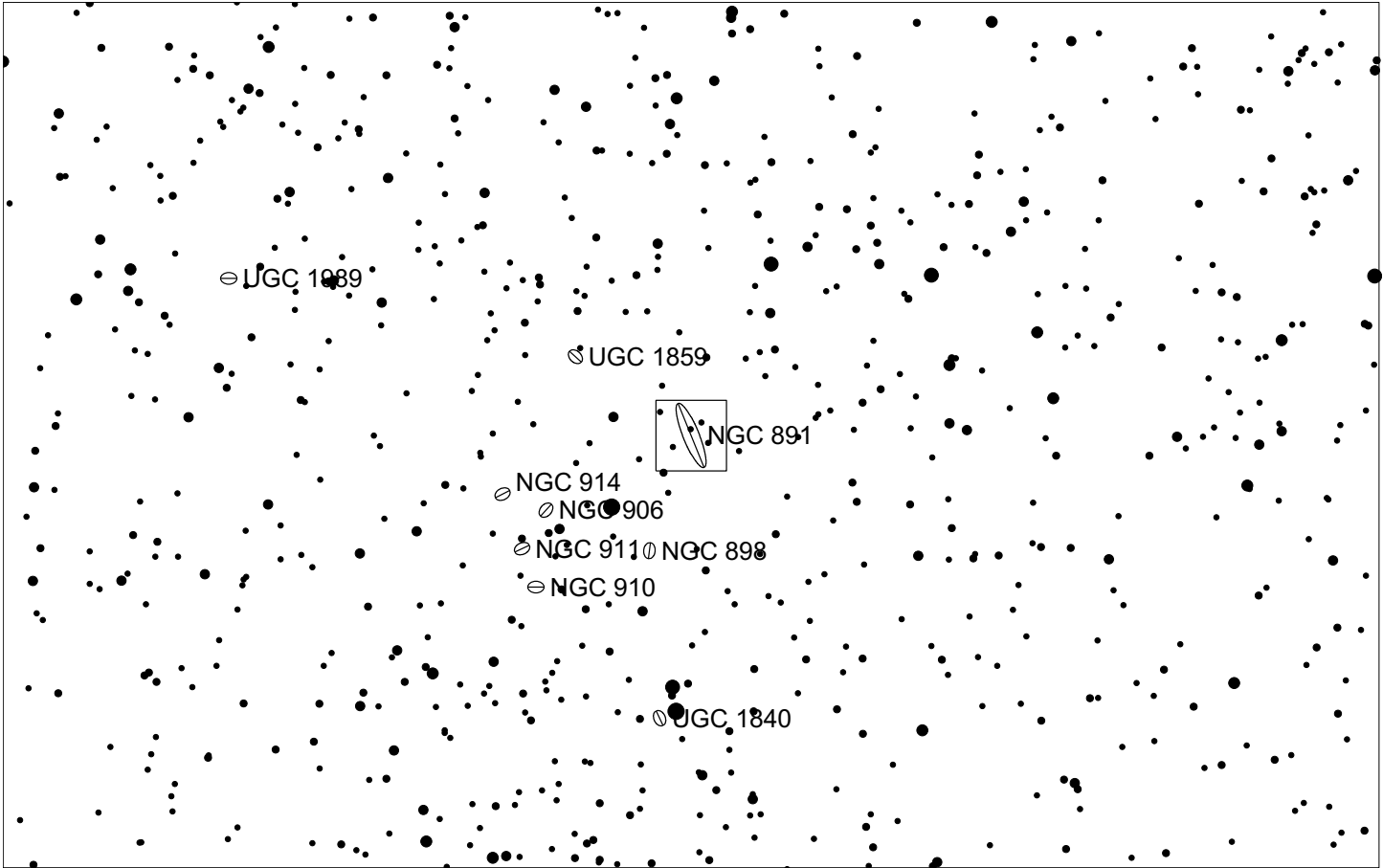
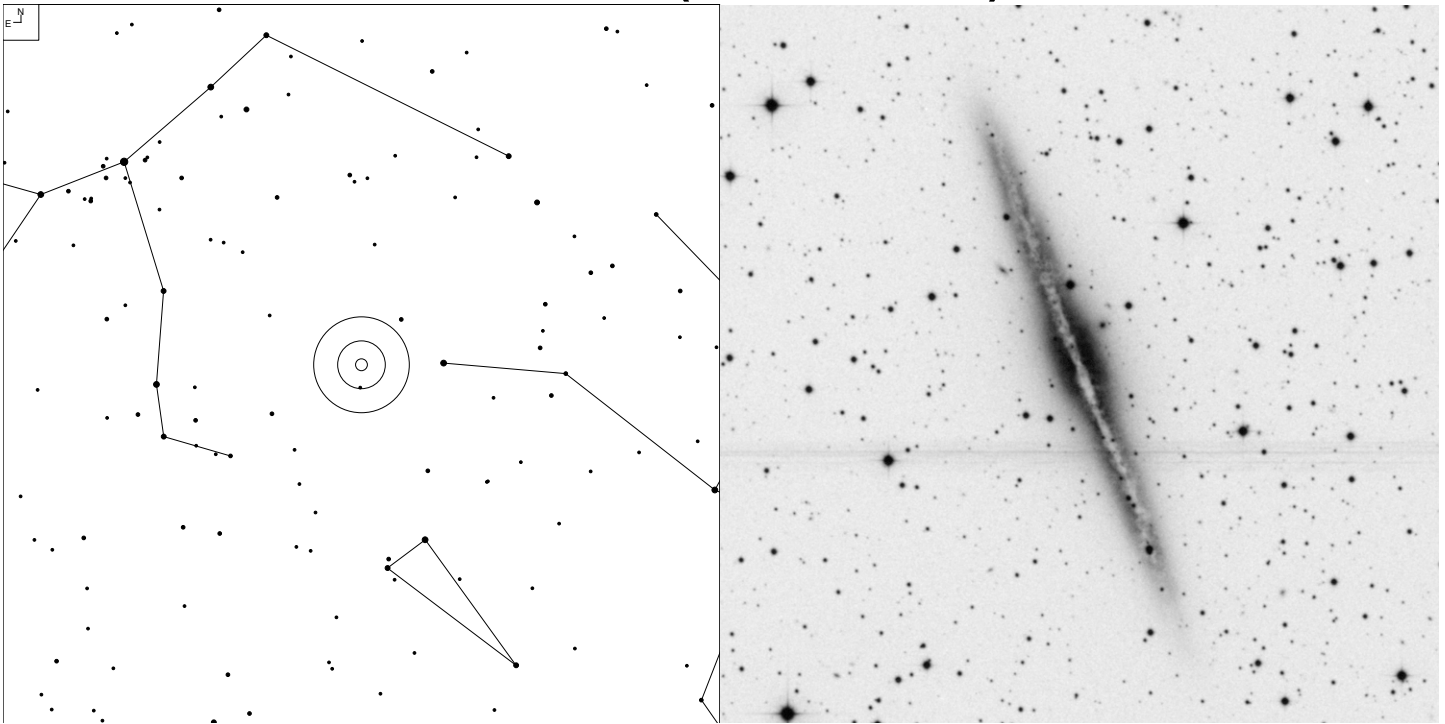
Name	RA	Dec	Mag	Size	Urano
UGC 122	00h 13m 17.6s	+17°01'47"	14.9	2.2 X 0.3'	81L

UGC 433 (Andromeda)



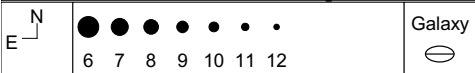
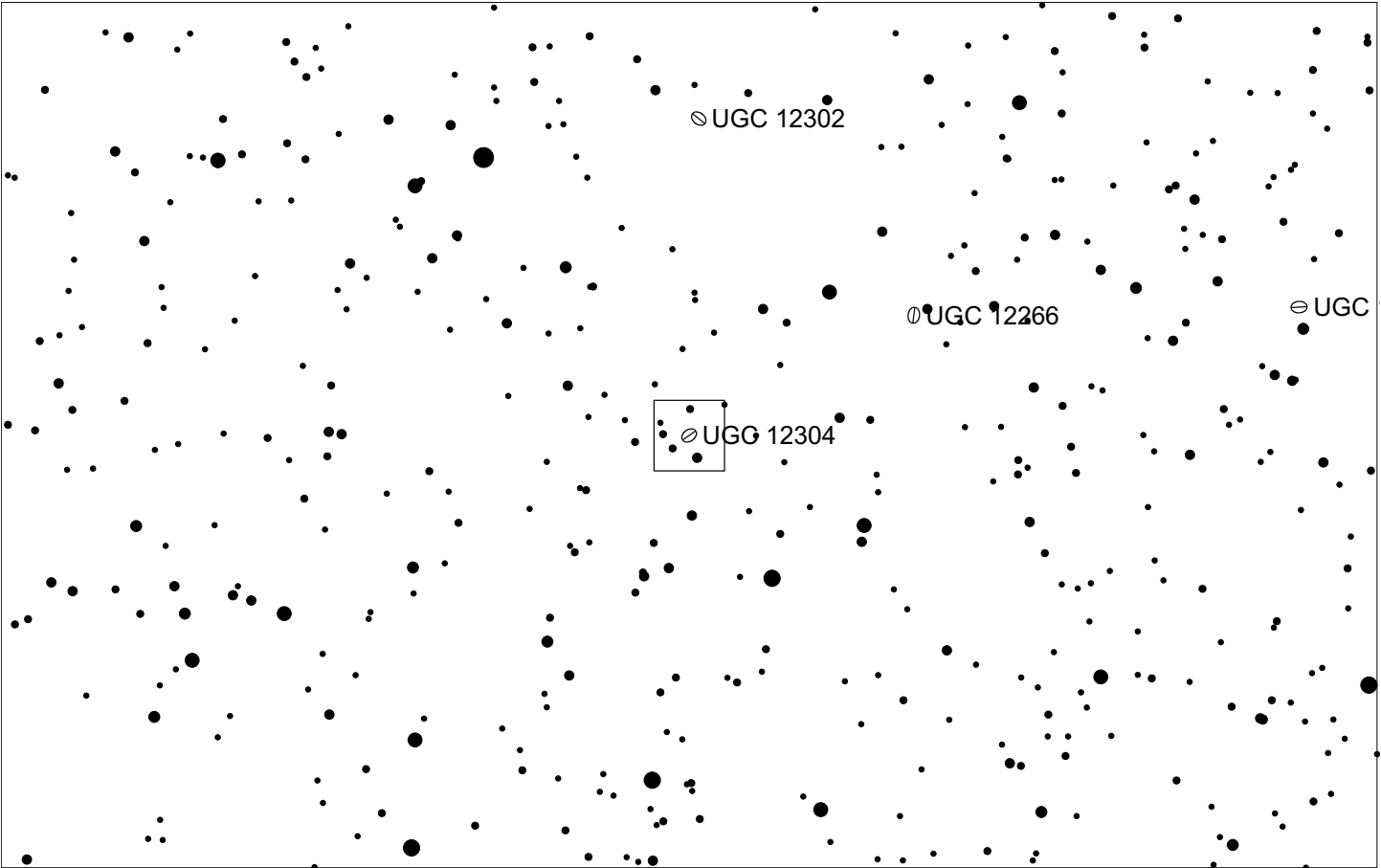
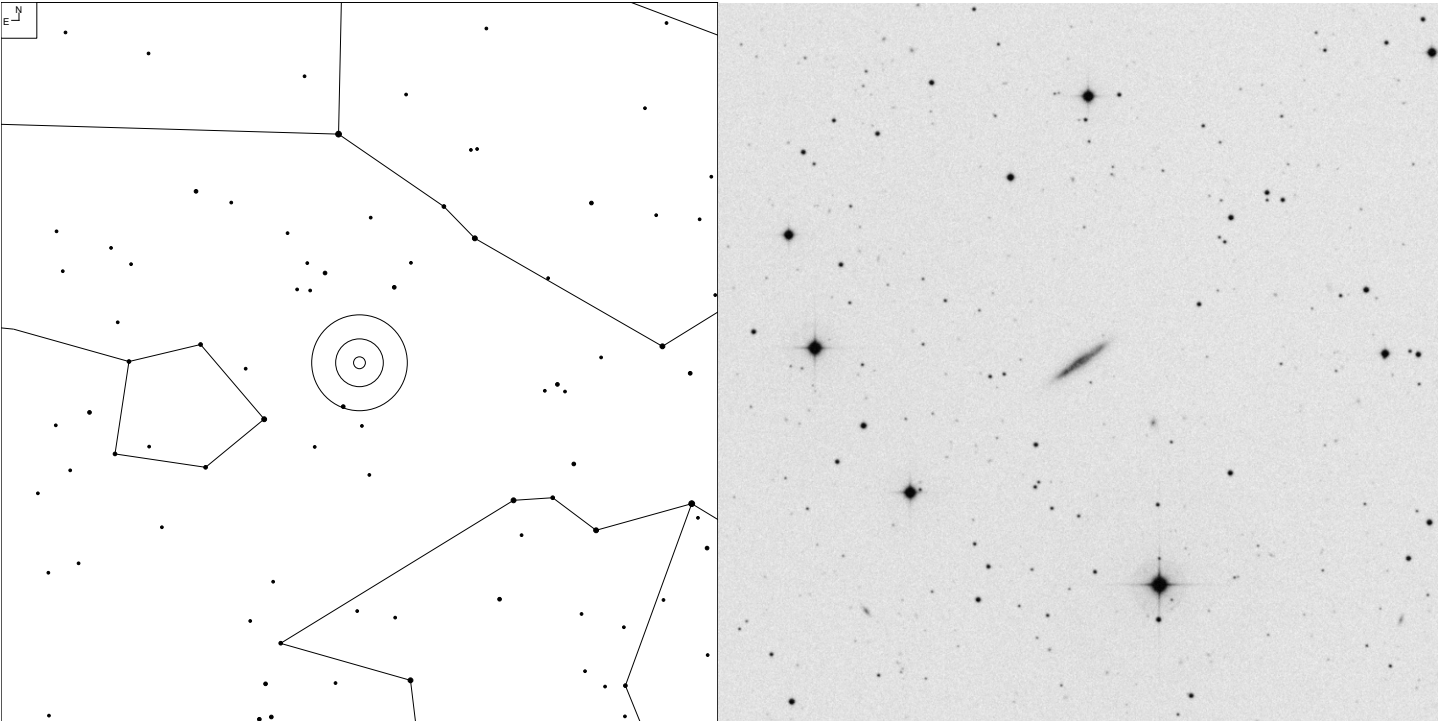
Name	RA	Dec	Mag	Size	Urano
UGC 433	00h 41m 03.6s	+31°43'59"	14.6p	1.9 x 0.4'	62R

NGC 891 (Andromeda)



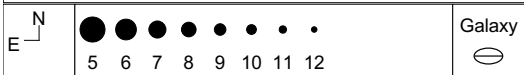
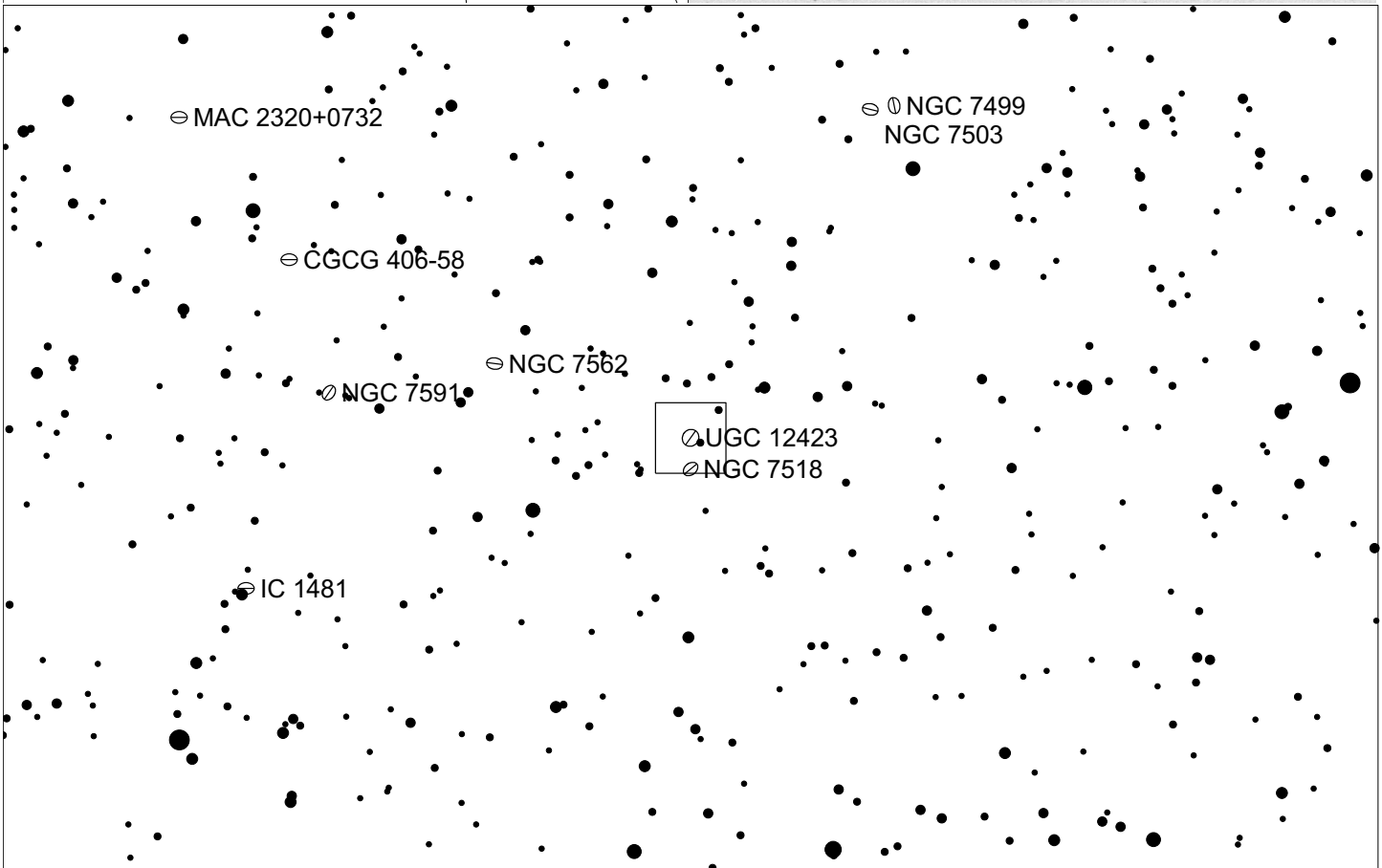
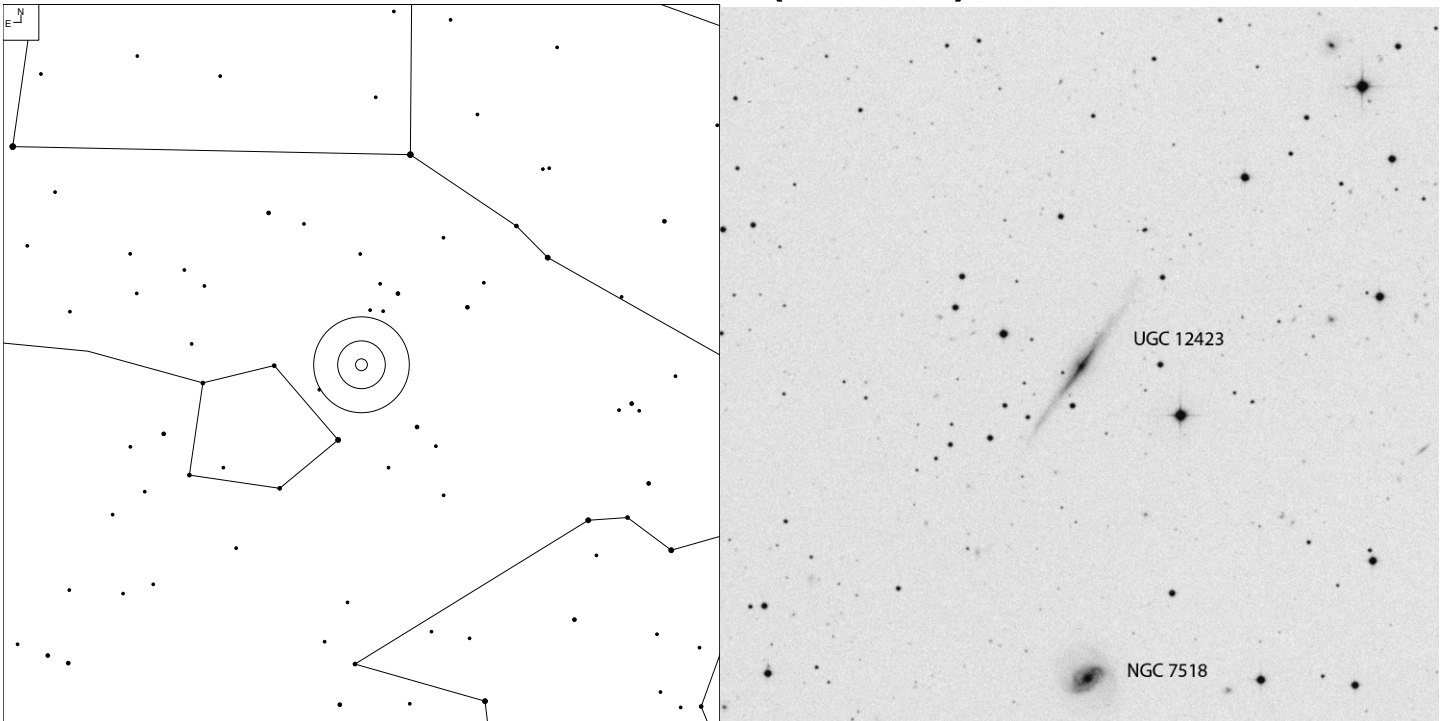
Name	RA	Dec	Mag	Size	Urano
NGC 891	02h 22m 33.4s	+42°21'03"	10.8b	14.3 x 2.4'	44L

UGC 12304 (Pisces)



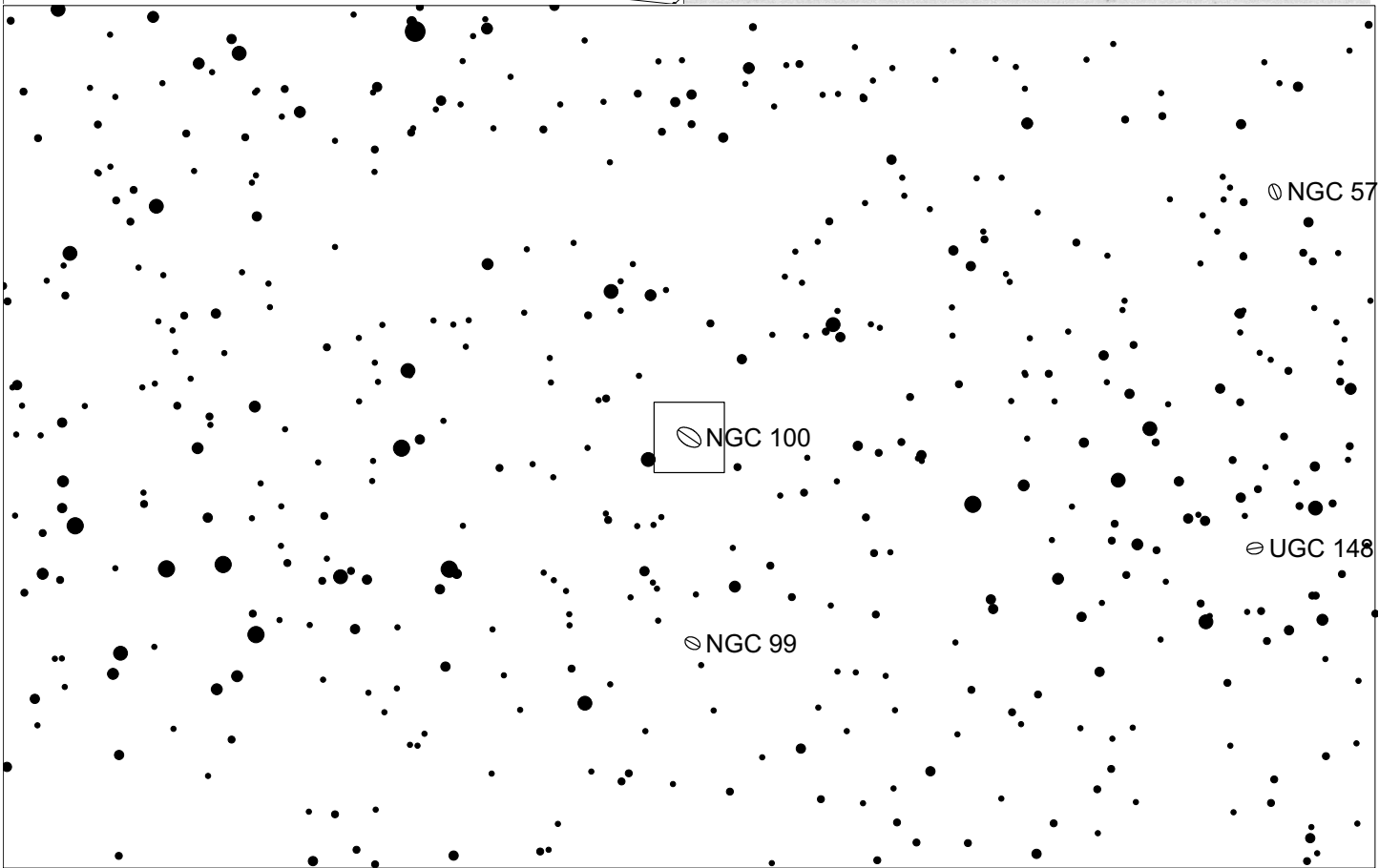
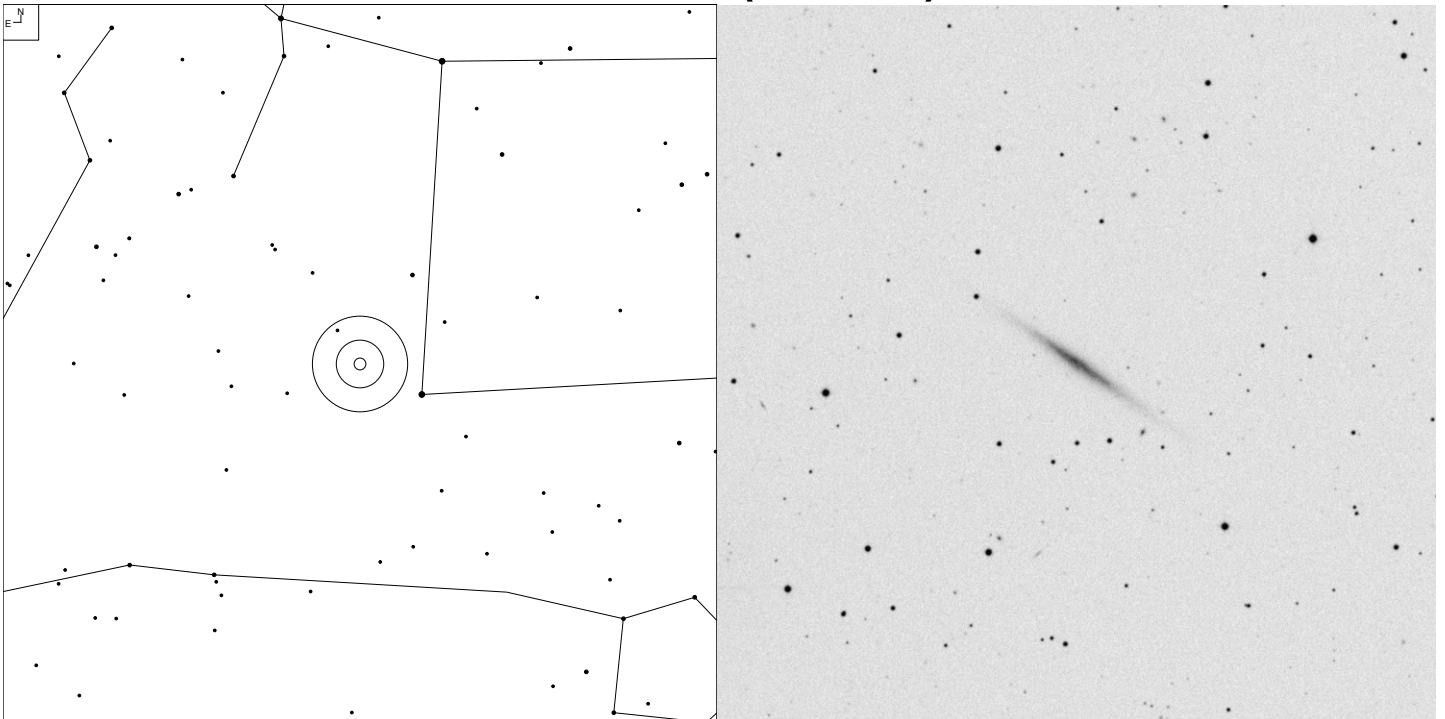
Name	RA	Dec	Mag	Size	Urano
UGC 12304	23h 01m 09.6s	+05°39'14"	14.7b	1.5 x 0.2'	82L

UGC 12423 (Pisces)



Name	RA	Dec	Mag	Size	Urano
UGC 12423	23h 13m 13.2s	+06°25'48"	14.5b	3.5 x 0.3'	82L

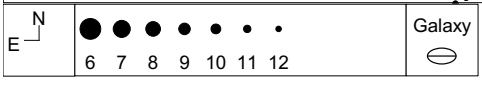
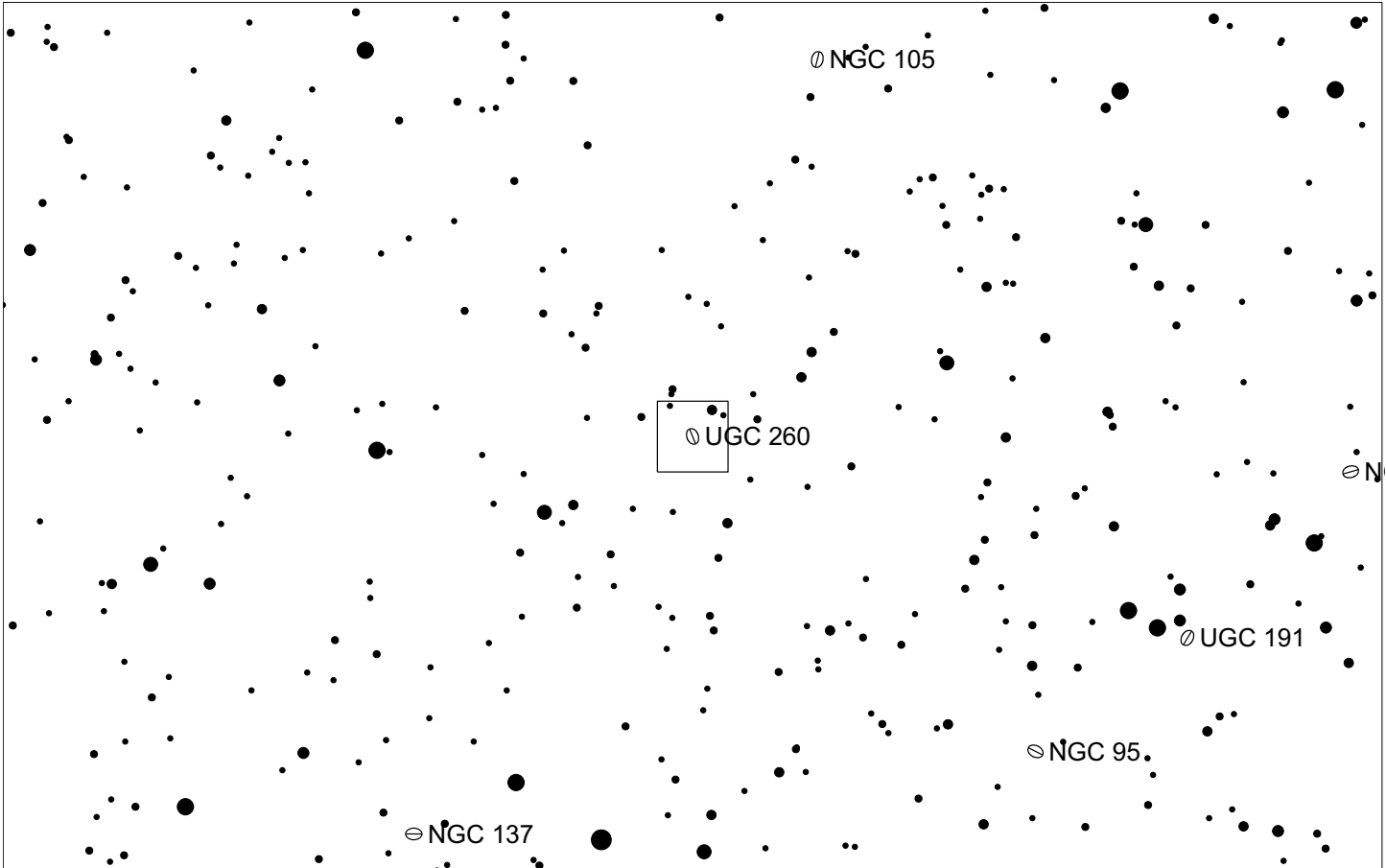
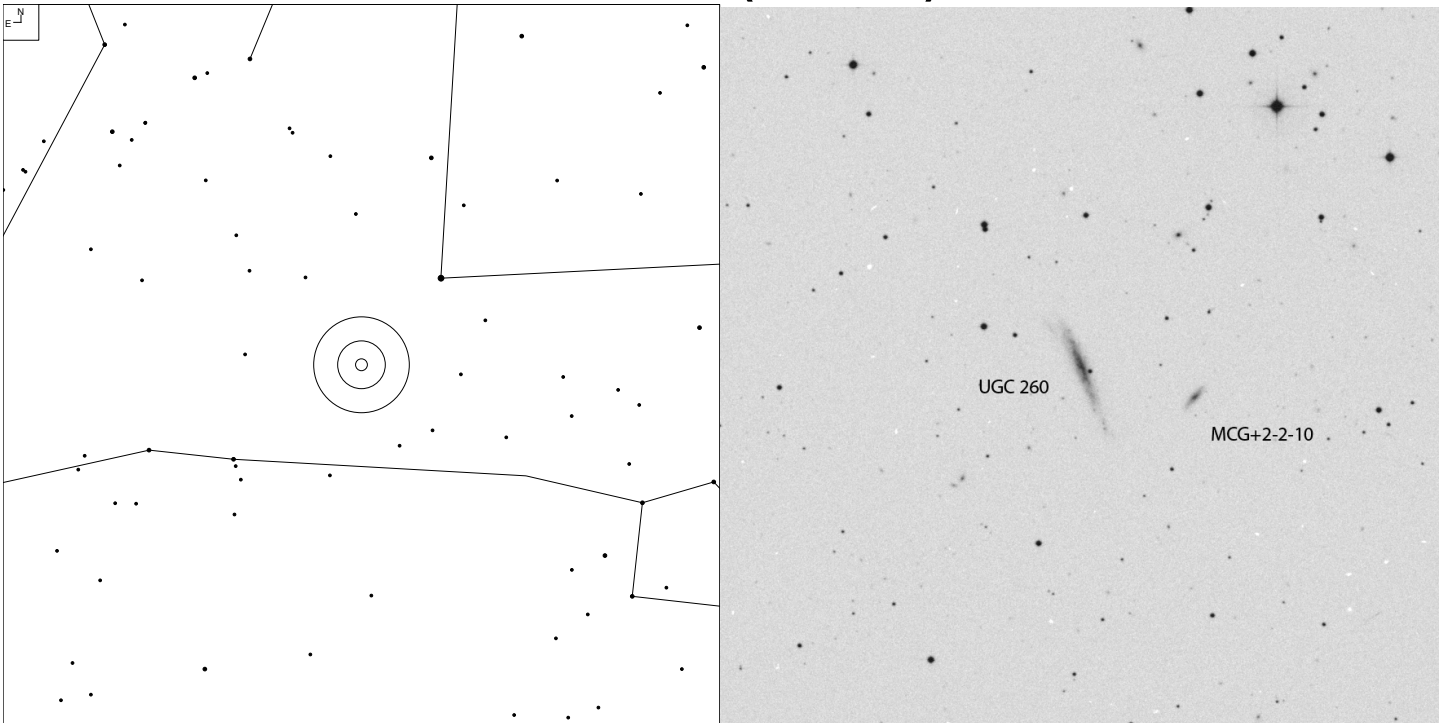
NGC 100 (Pisces)



Galaxy

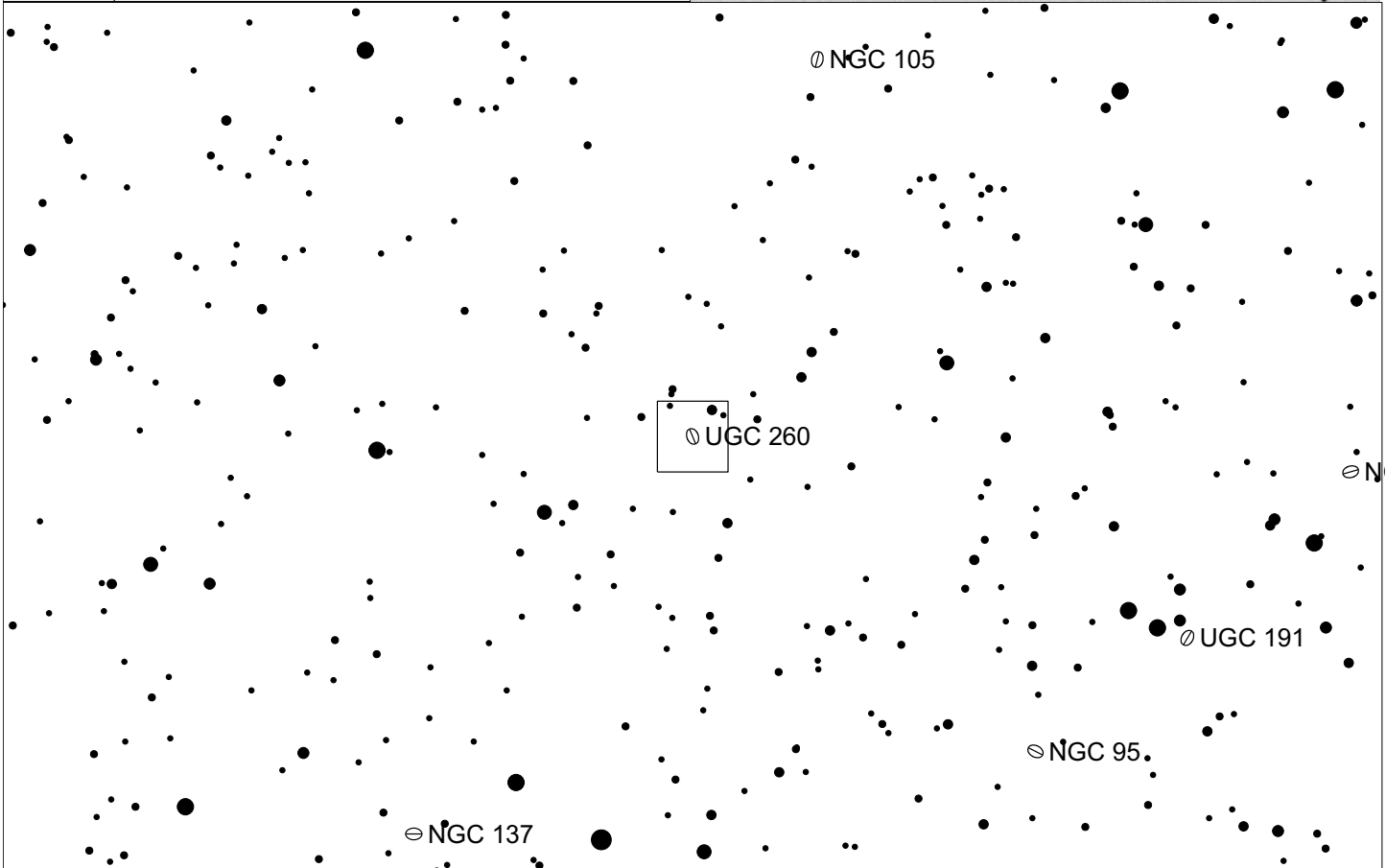
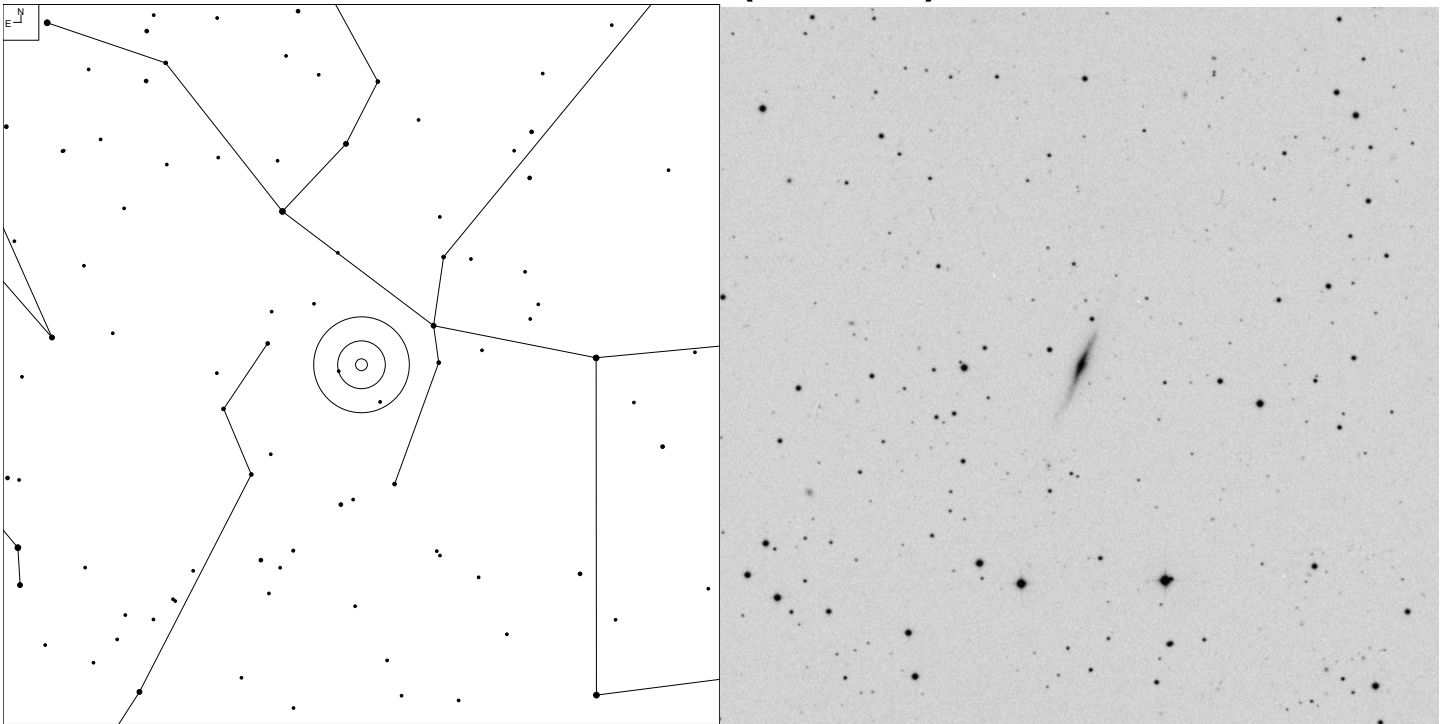
Name	RA	Dec	Mag	Size	Urano
NGC 100	00h 24m 02.7s	+16°29'11"	13.9	5.4 x 0.6'	81L

UGC 260 (Pisces)



Name	RA	Dec	Mag	Size	Urano
UGC 260	00h 27m 02.9s	+11°35'02"	13.7p	3.0 x 0.5'	81L

UGC 542 (Pisces)

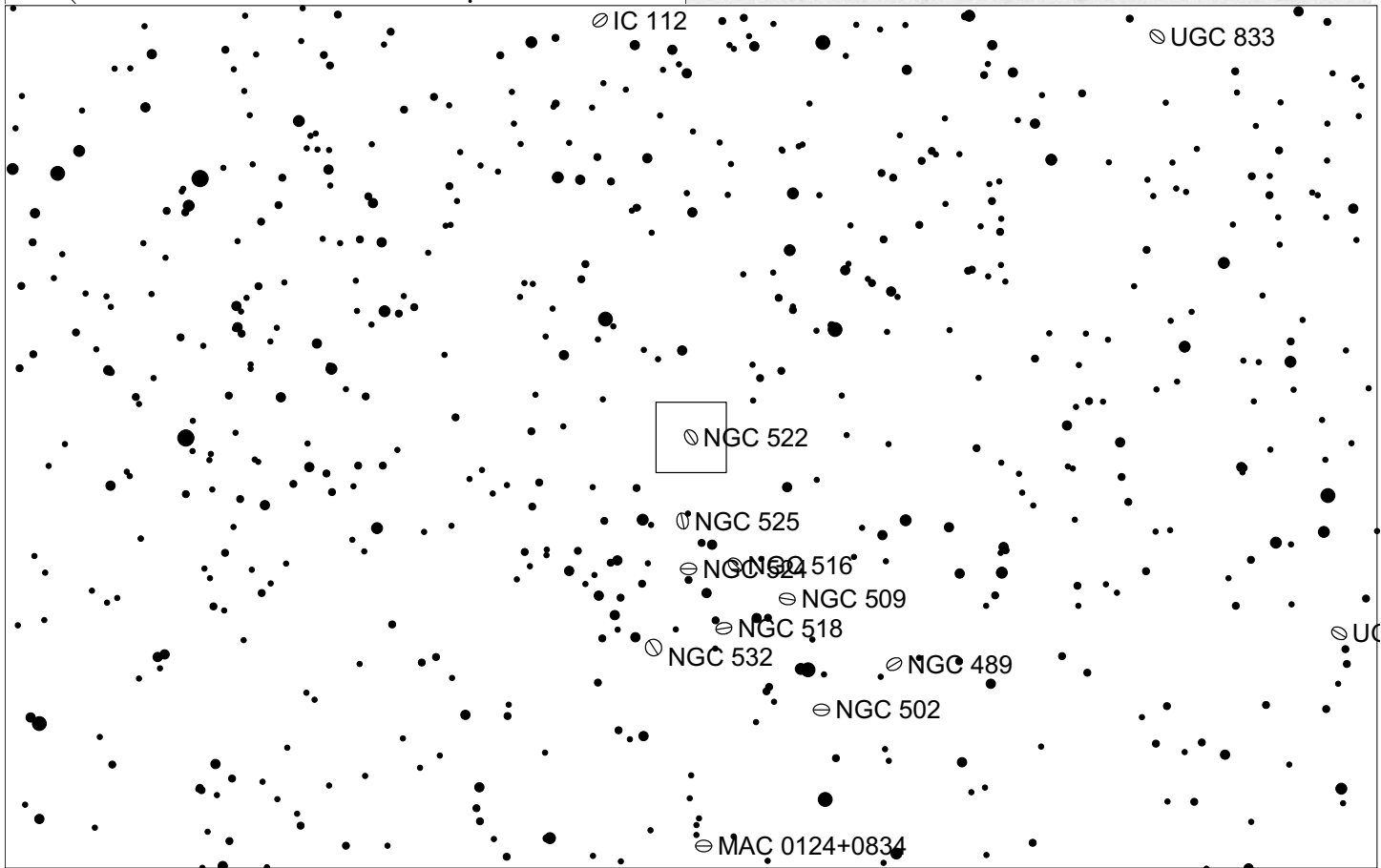
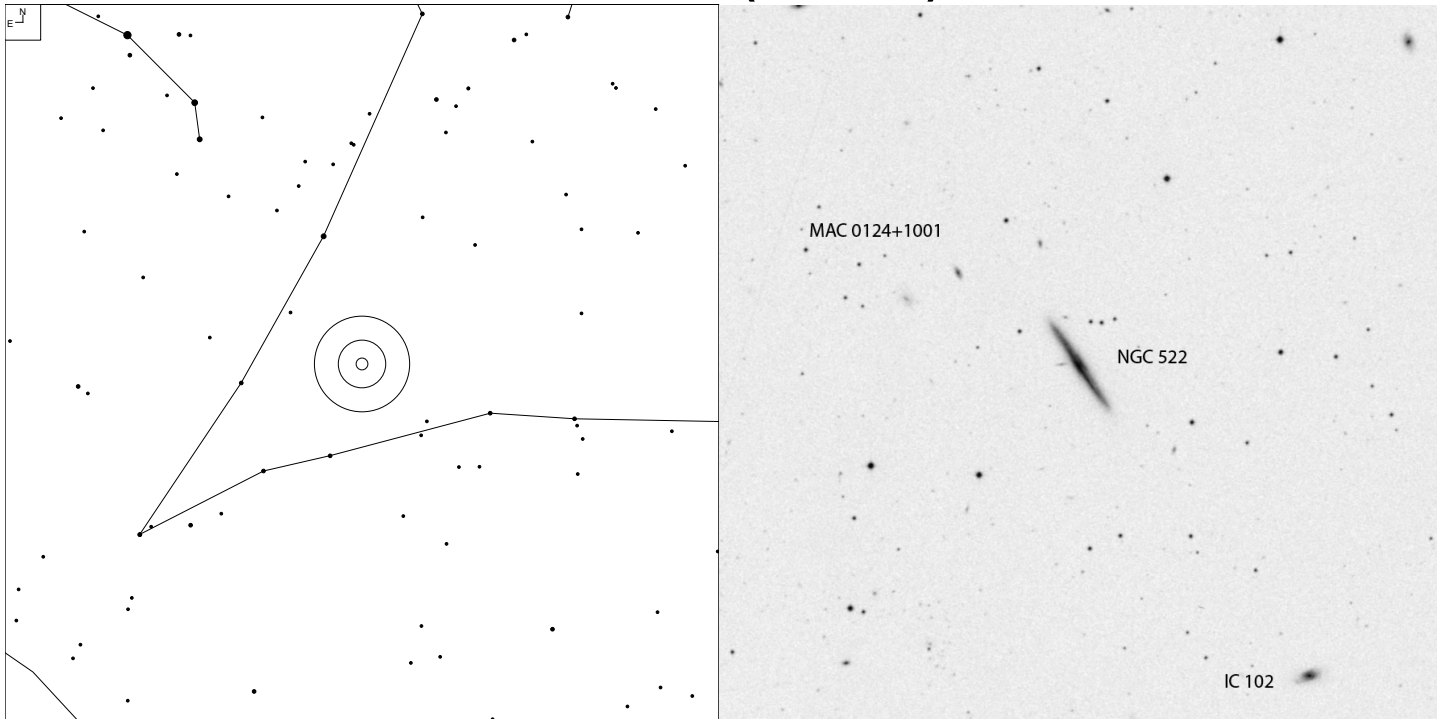


6 7 8 9 10 11 12

Galaxy

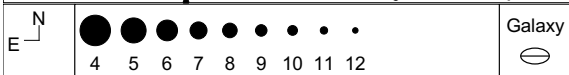
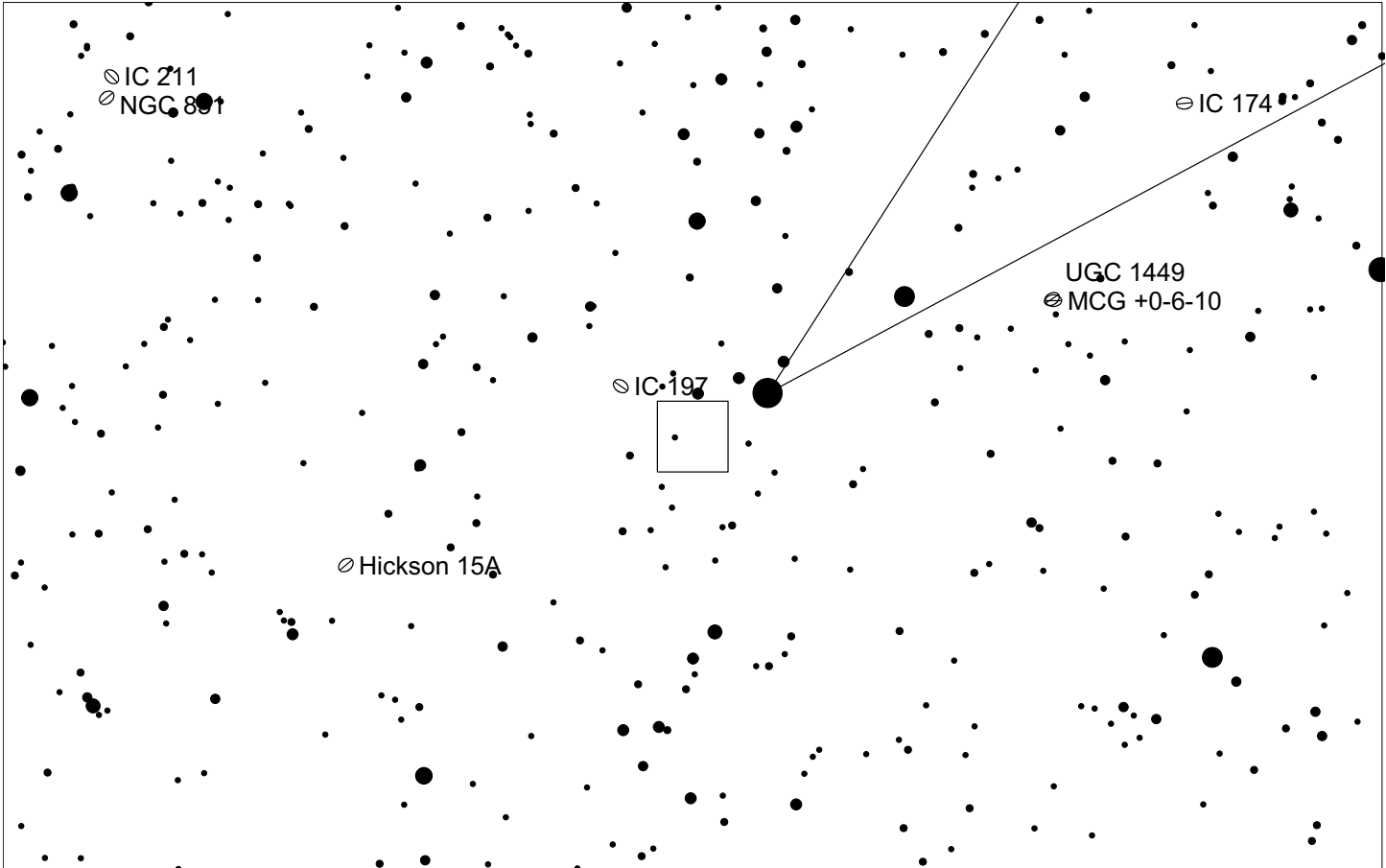
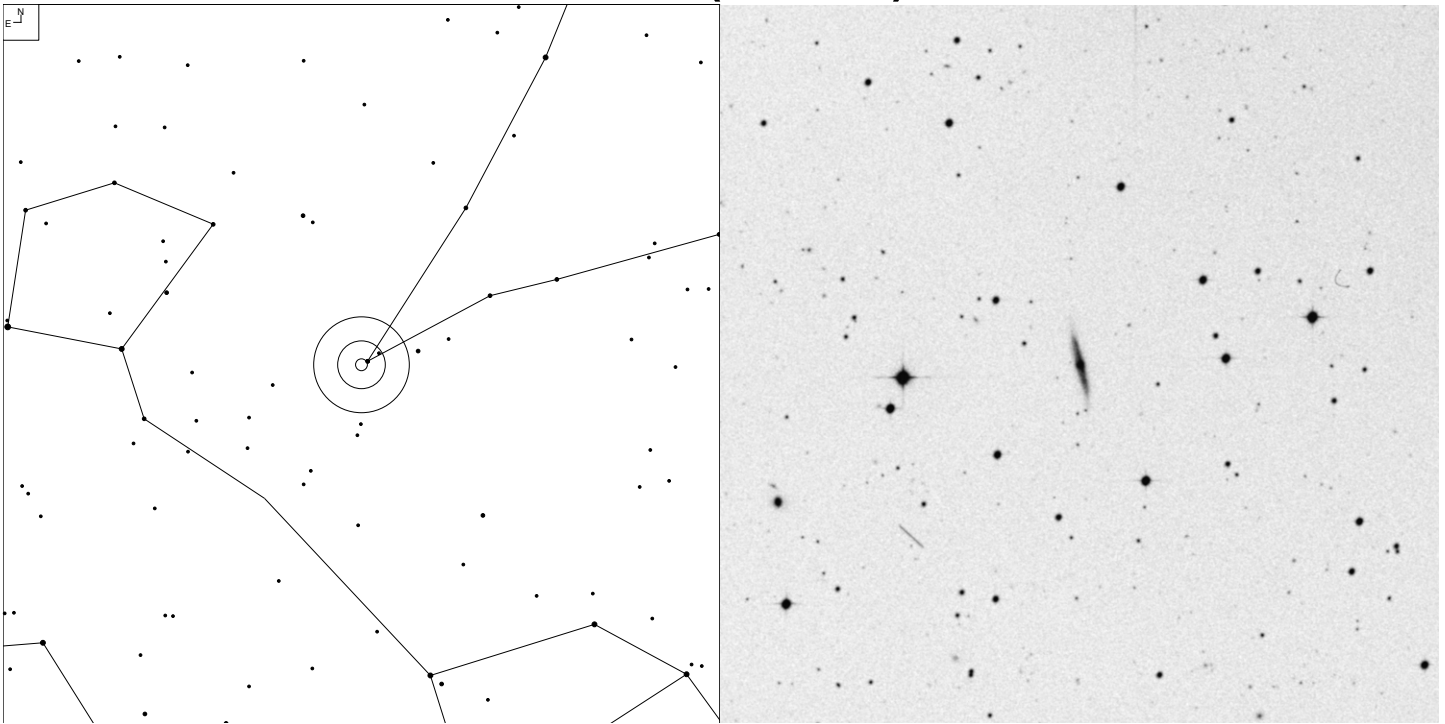
Name	RA	Dec	Mag	Size	Urano
UGC 542	00h 53m 26.6s	+29°16'12"	14.2b	2.0 x 0.5'	80R

NGC 522 (Pisces)



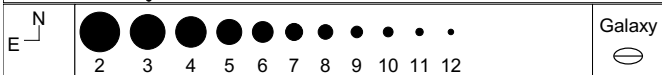
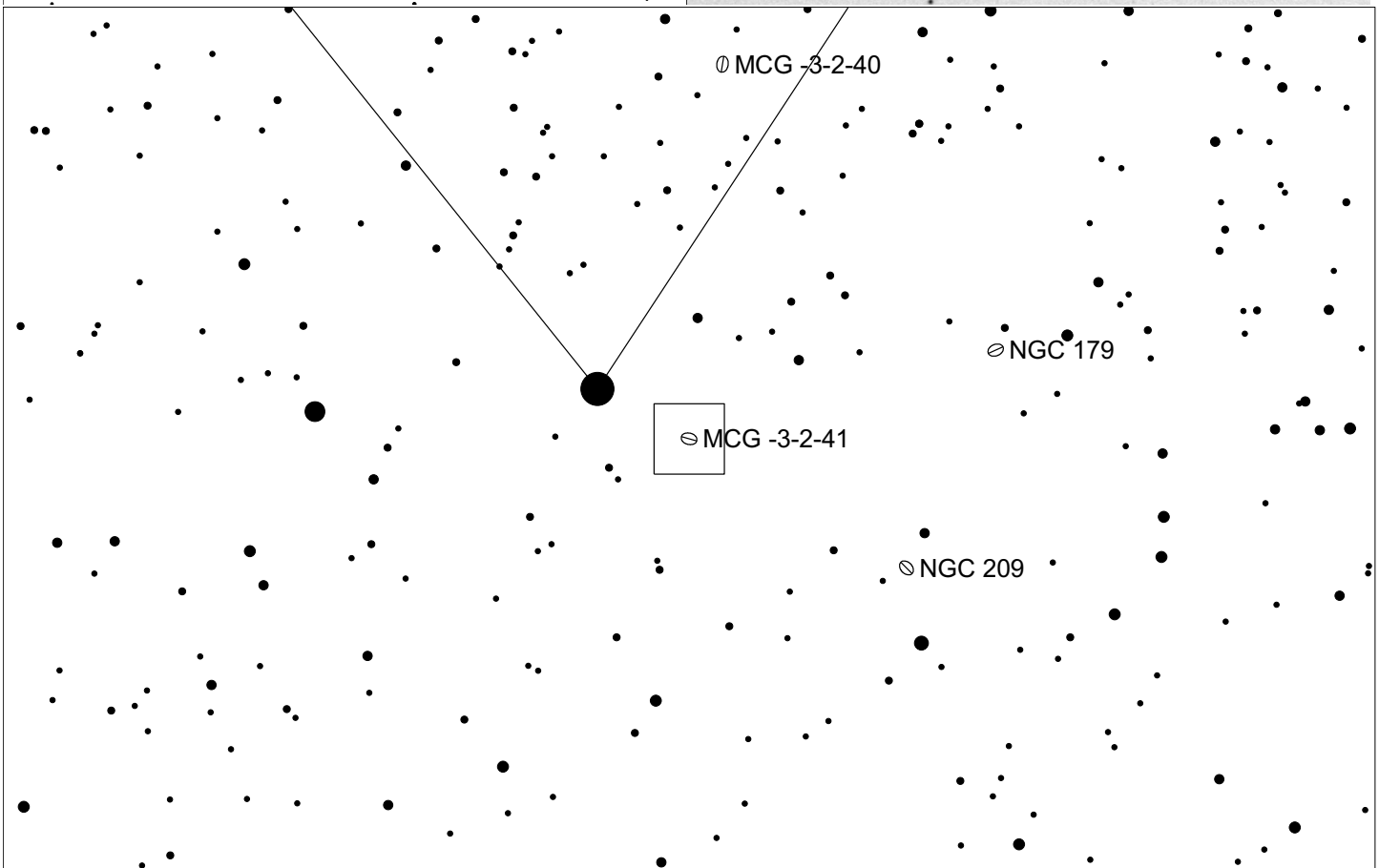
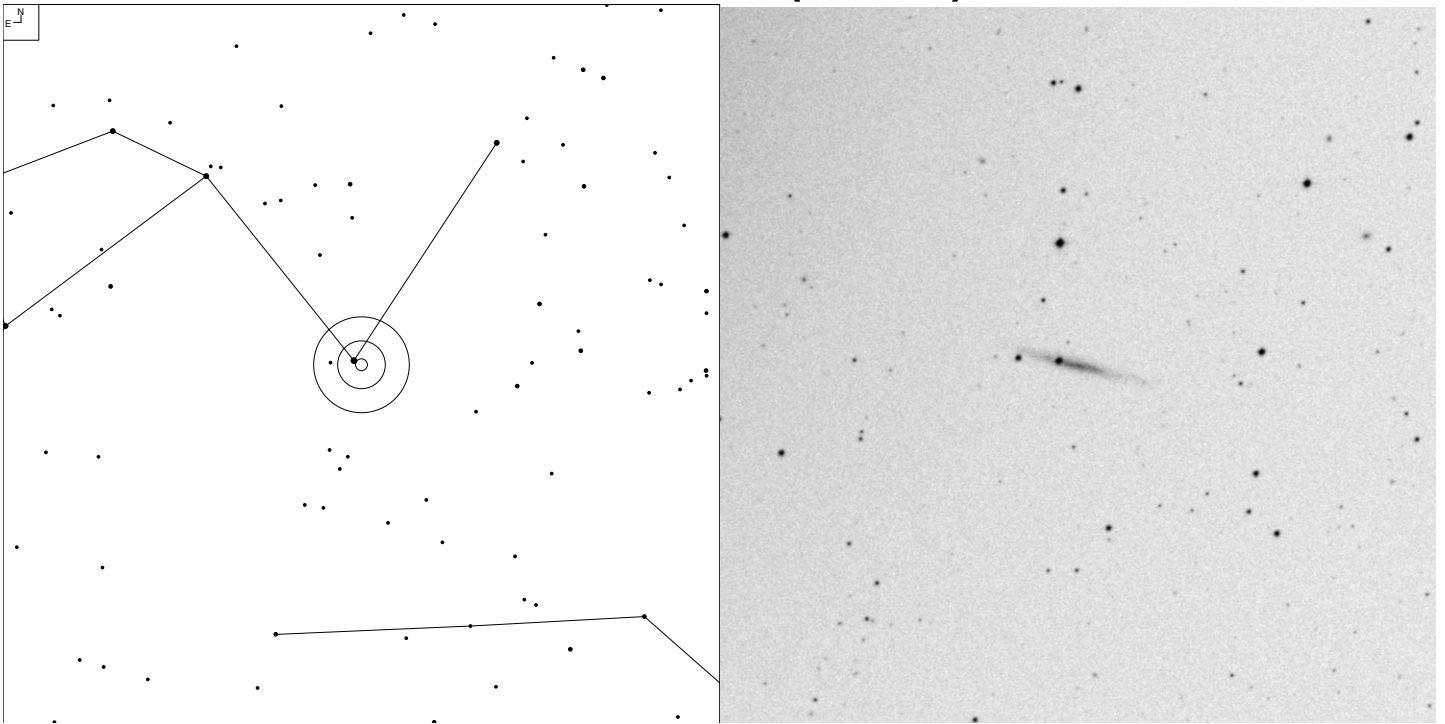
Name	RA	Dec	Mag	Size	Urano
NGC 522	01h 24m 45.9s	+09°59'42"	13.9b	2.7 x 0.4'	100L

IC 194 (Pisces)



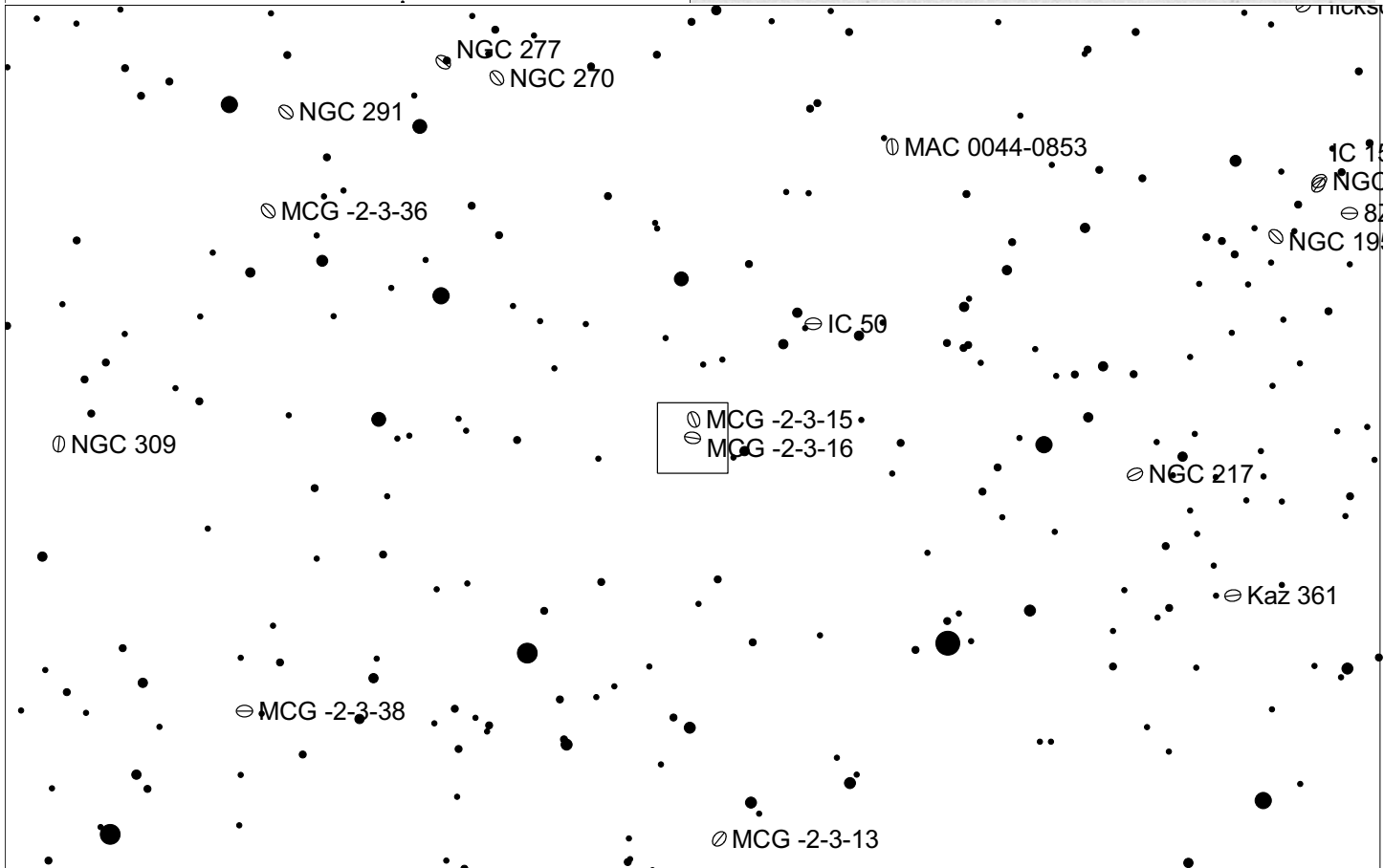
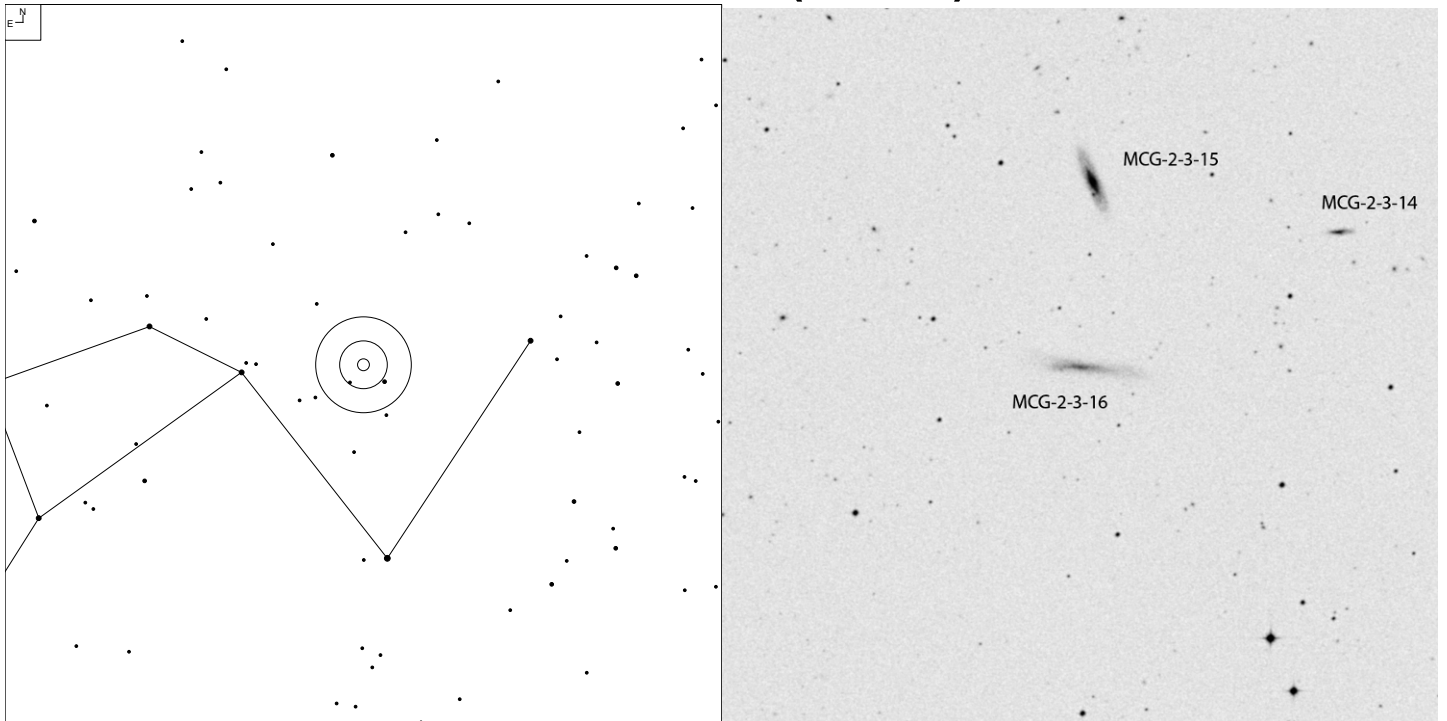
Name	RA	Dec	Mag	Size	Urano
IC 194	02h 03m 05.3s	+02°36'51"	15.2p	1.4 x 0.2'	119R

MCG-3-2-41 (Cetus)



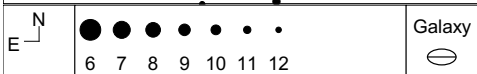
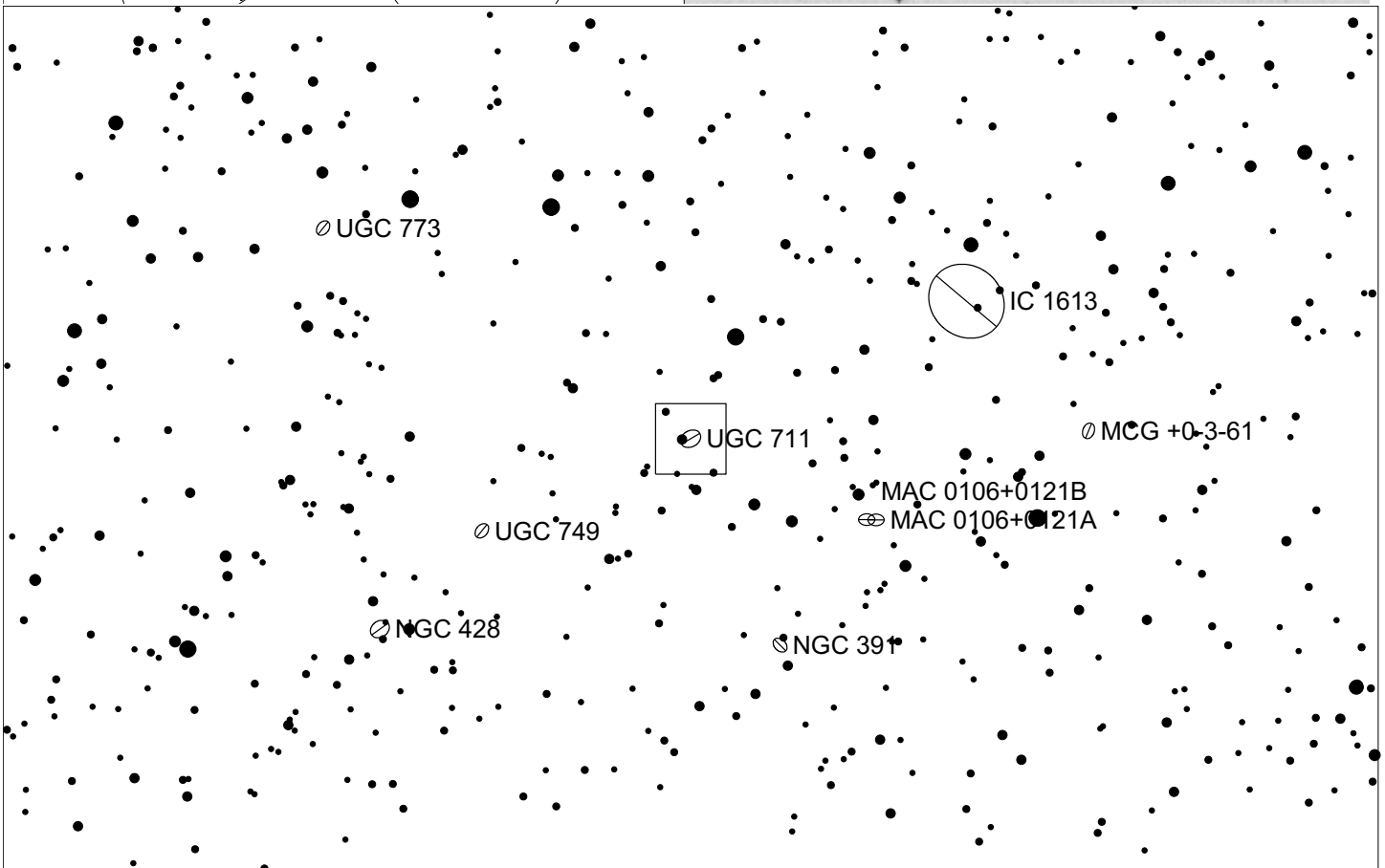
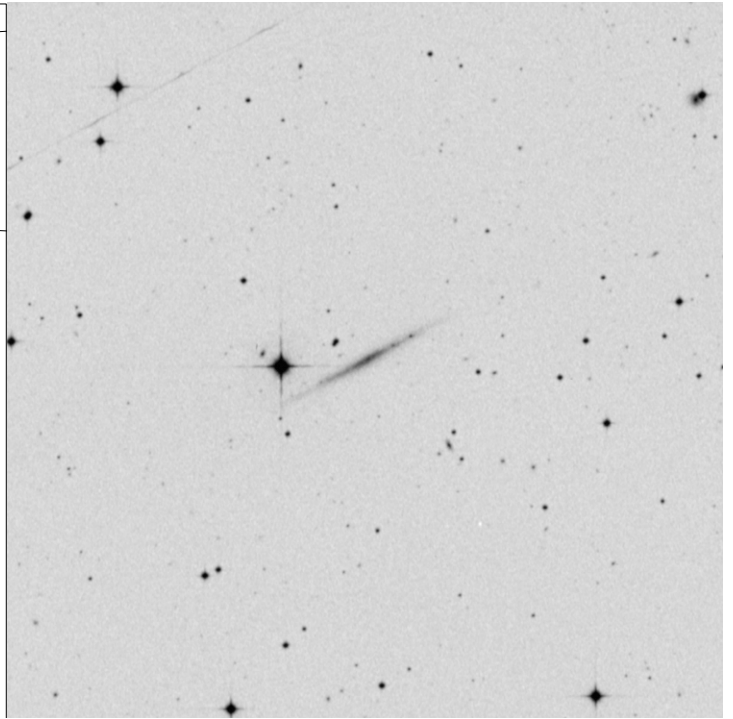
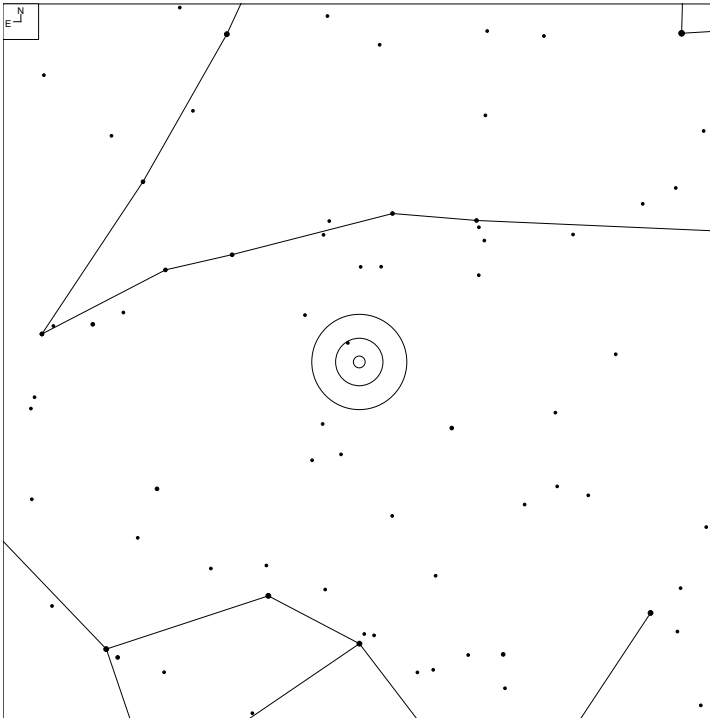
Name	RA	Dec	Mag	Size	Urano
MCG-3-2-41	00h 42m 15.1s	-18°09'40"	14.3p	3.2 x 0.4'	158R

MCG-2-3-16 (Cetus)



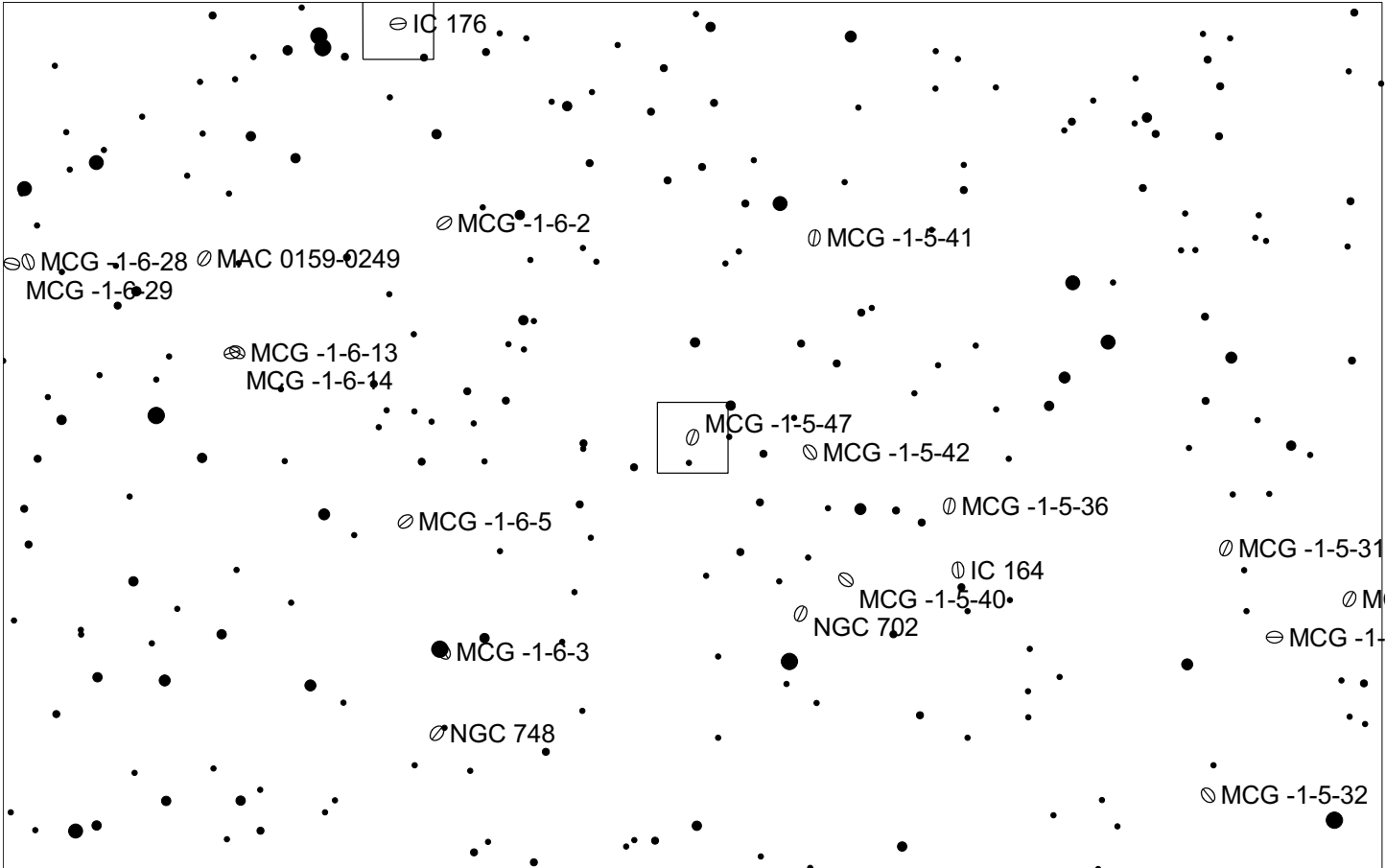
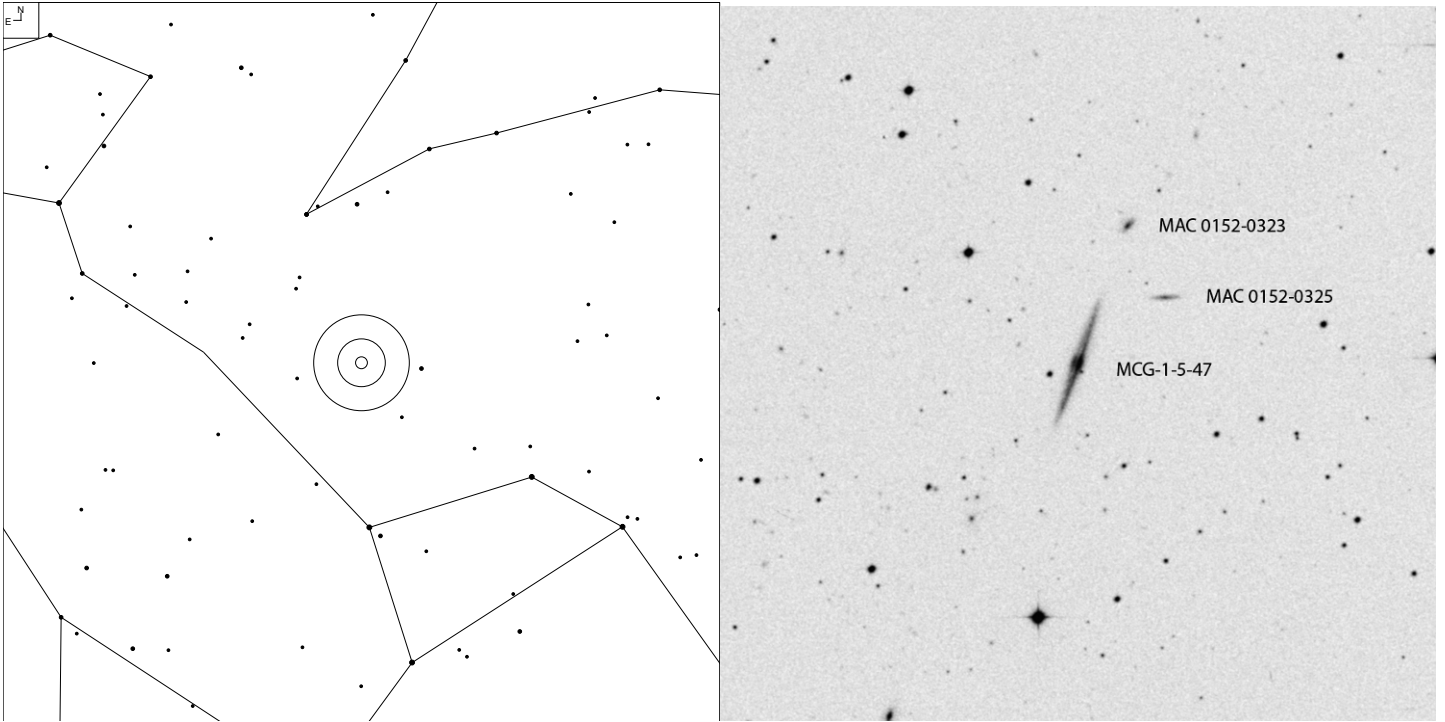
Name	RA	Dec	Mag	Size	Urano
MCG-2-3-16	00h 47m 47.5s	-09°53'58"	14.4	3.0 x 0.4'	140R

UGC 711 (Cetus)



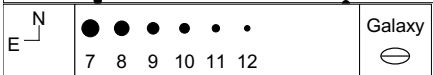
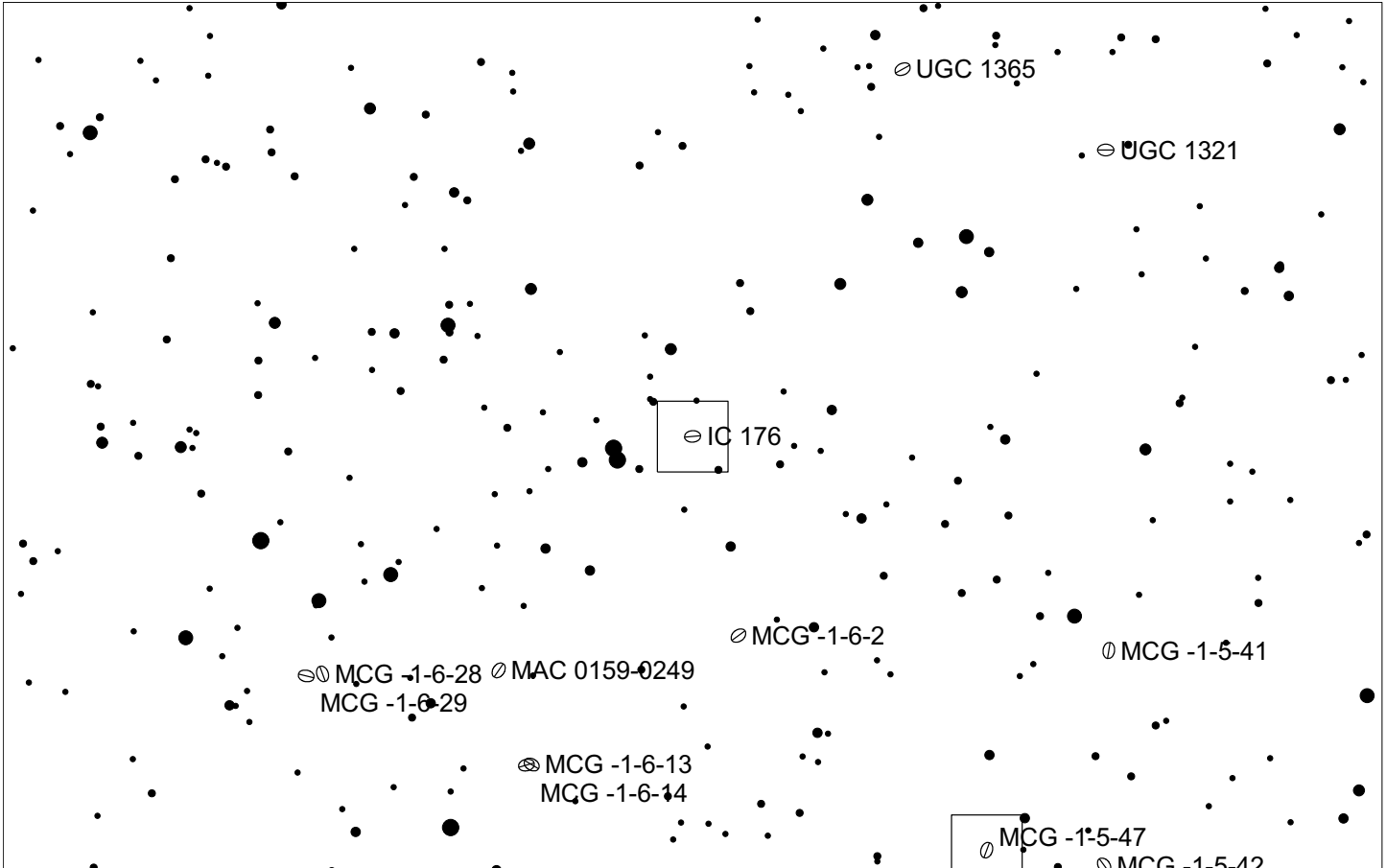
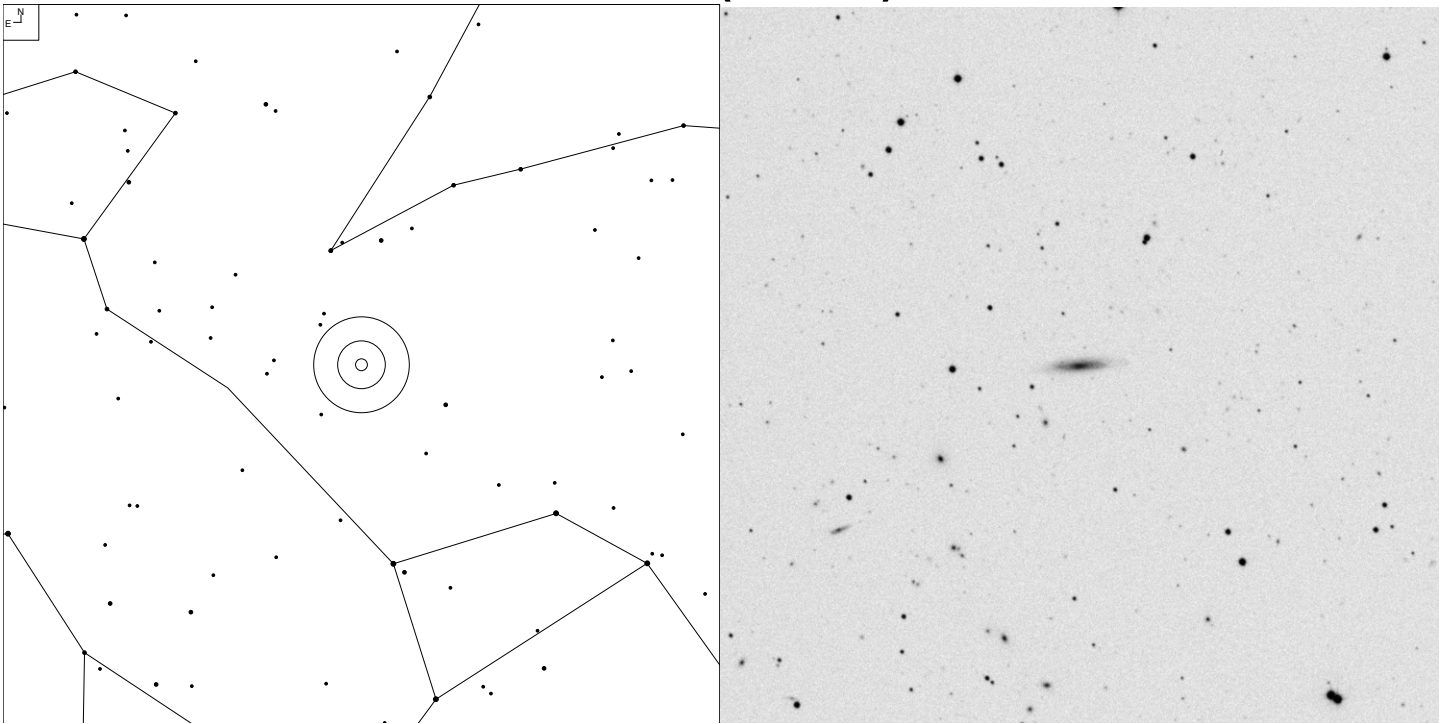
Name	RA	Dec	Mag	Size	Urano
UGC 711	01h 08m 37.0s	+01°38'29"	14.4p	4.4 x 0.3'	120R

MCG-1-5-47 (Cetus)



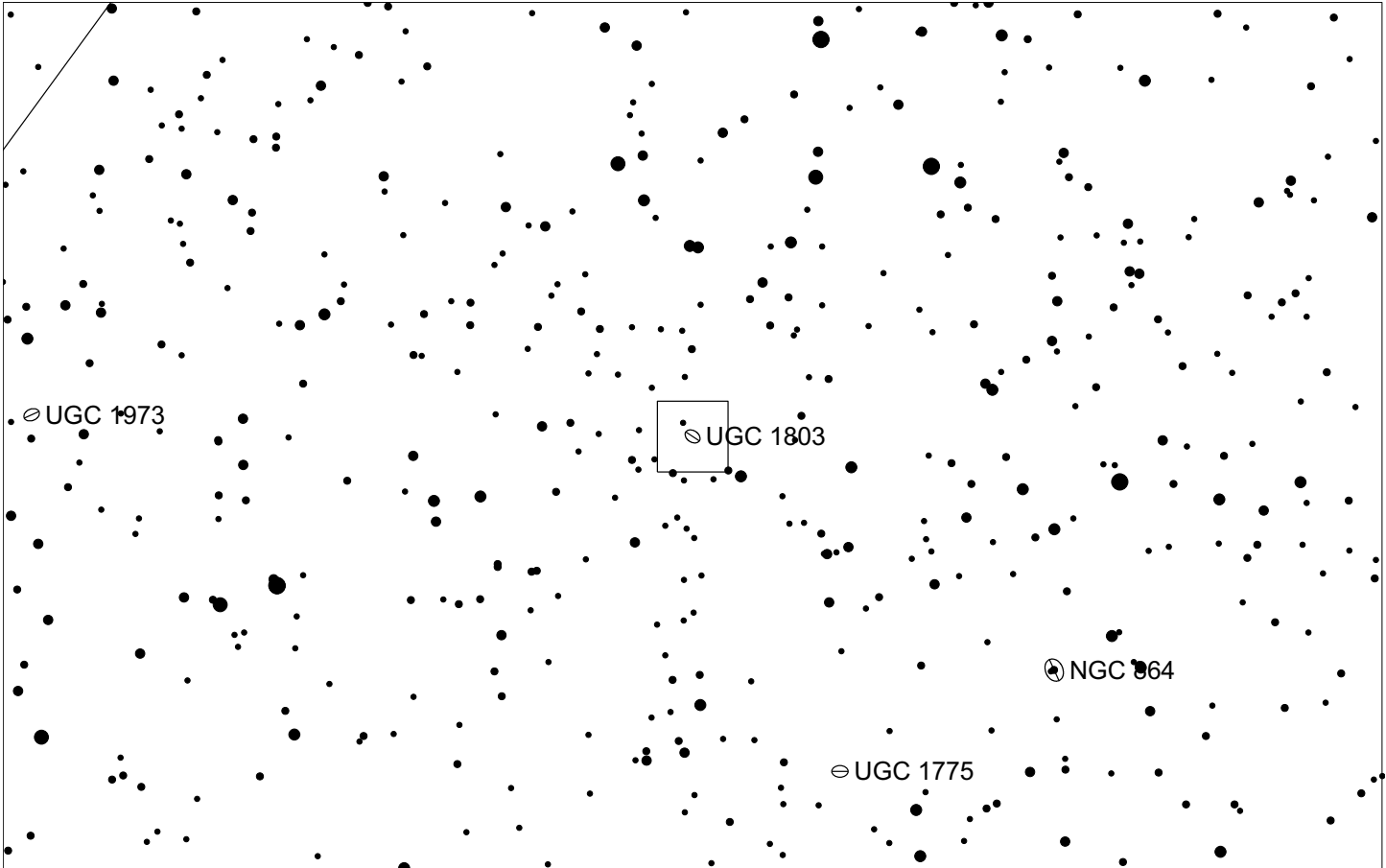
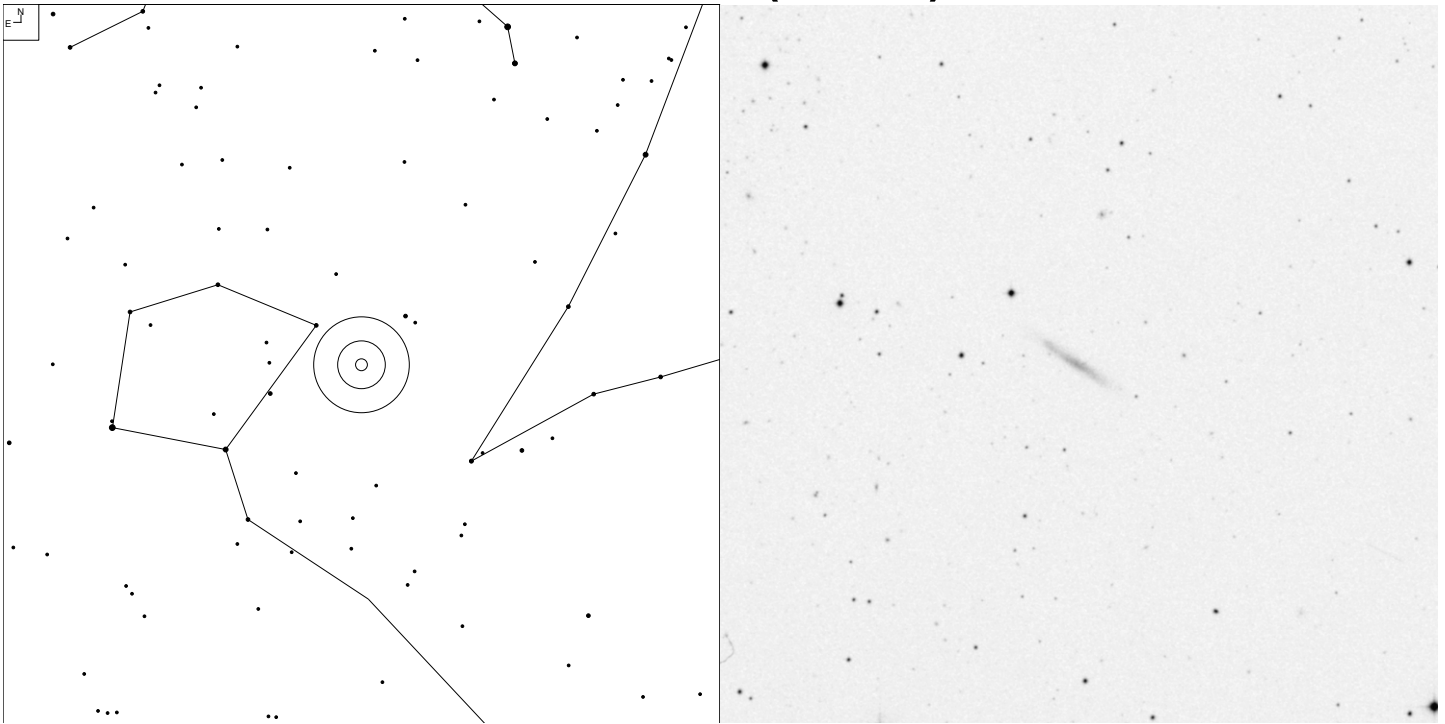
Name	RA	Dec	Mag	Size	Urano
MCG-1-5-47	01h 52m 49.0s	-03°26'51"	13.9	2.9 x 0.4'	119R

IC 176 (Cetus)



Name	RA	Dec	Mag	Size	Urano
IC 176	01h 56m 53.3s	-02°01'08"	14.7p	1.8 x 0.3'	119R

UGC 1803 (Cetus)

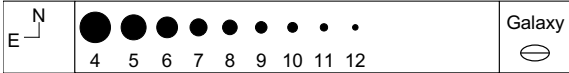
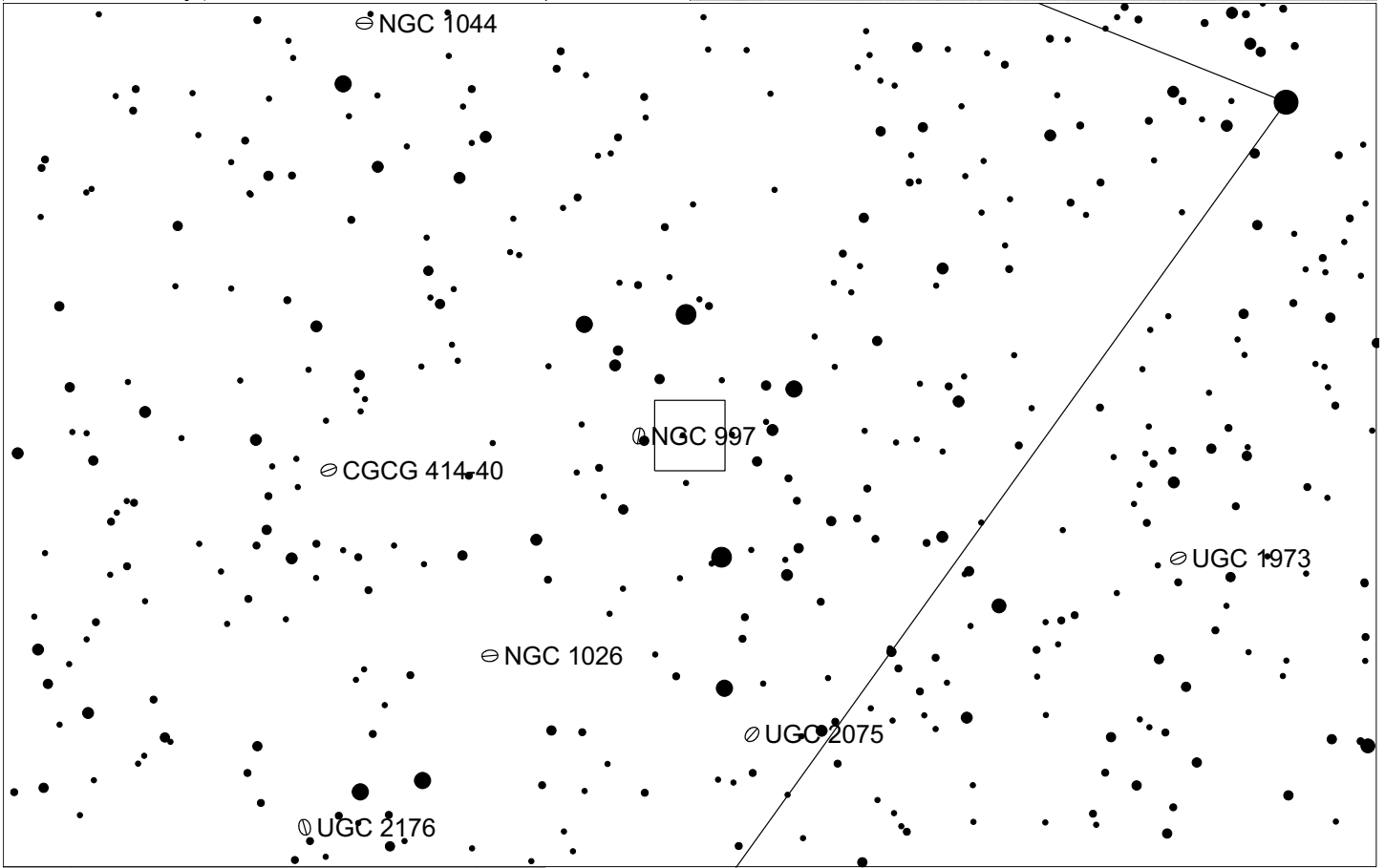
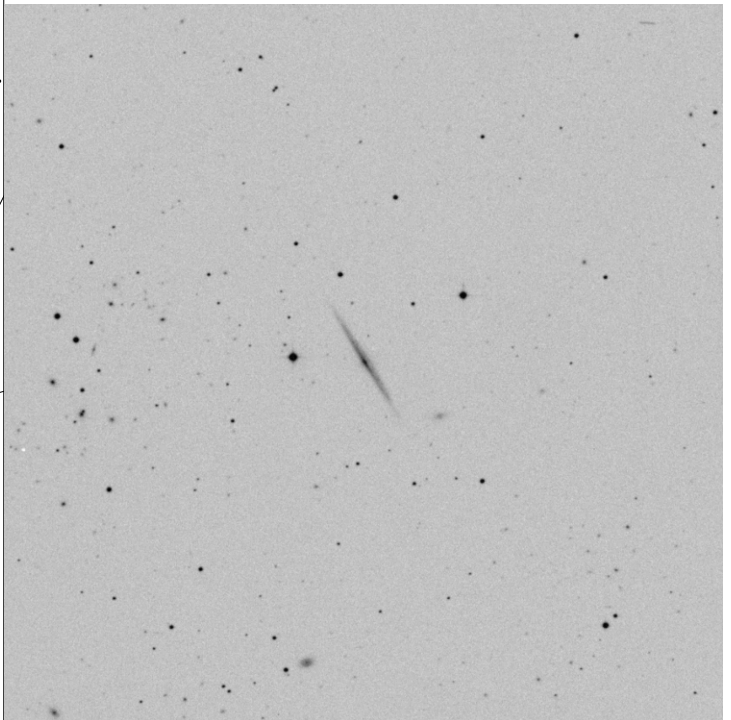
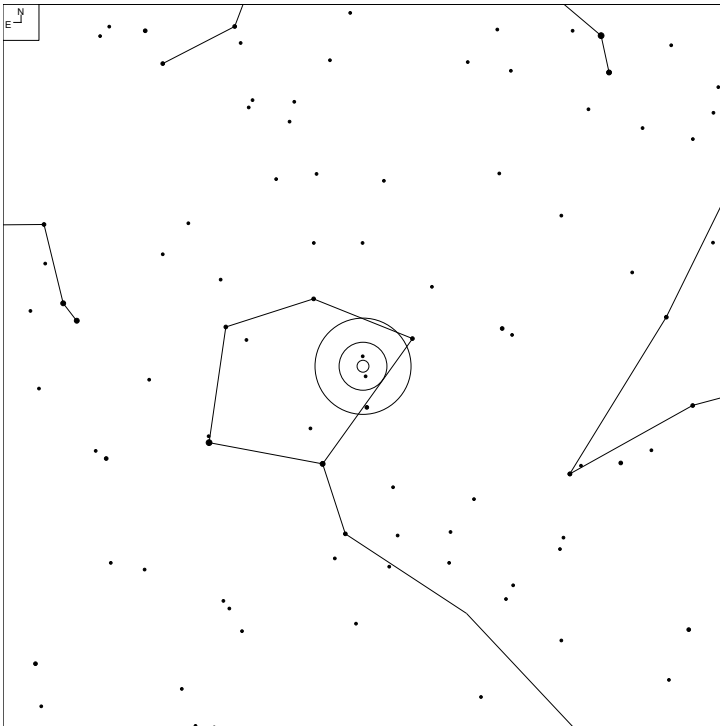


7 8 9 10 11 12

Galaxy

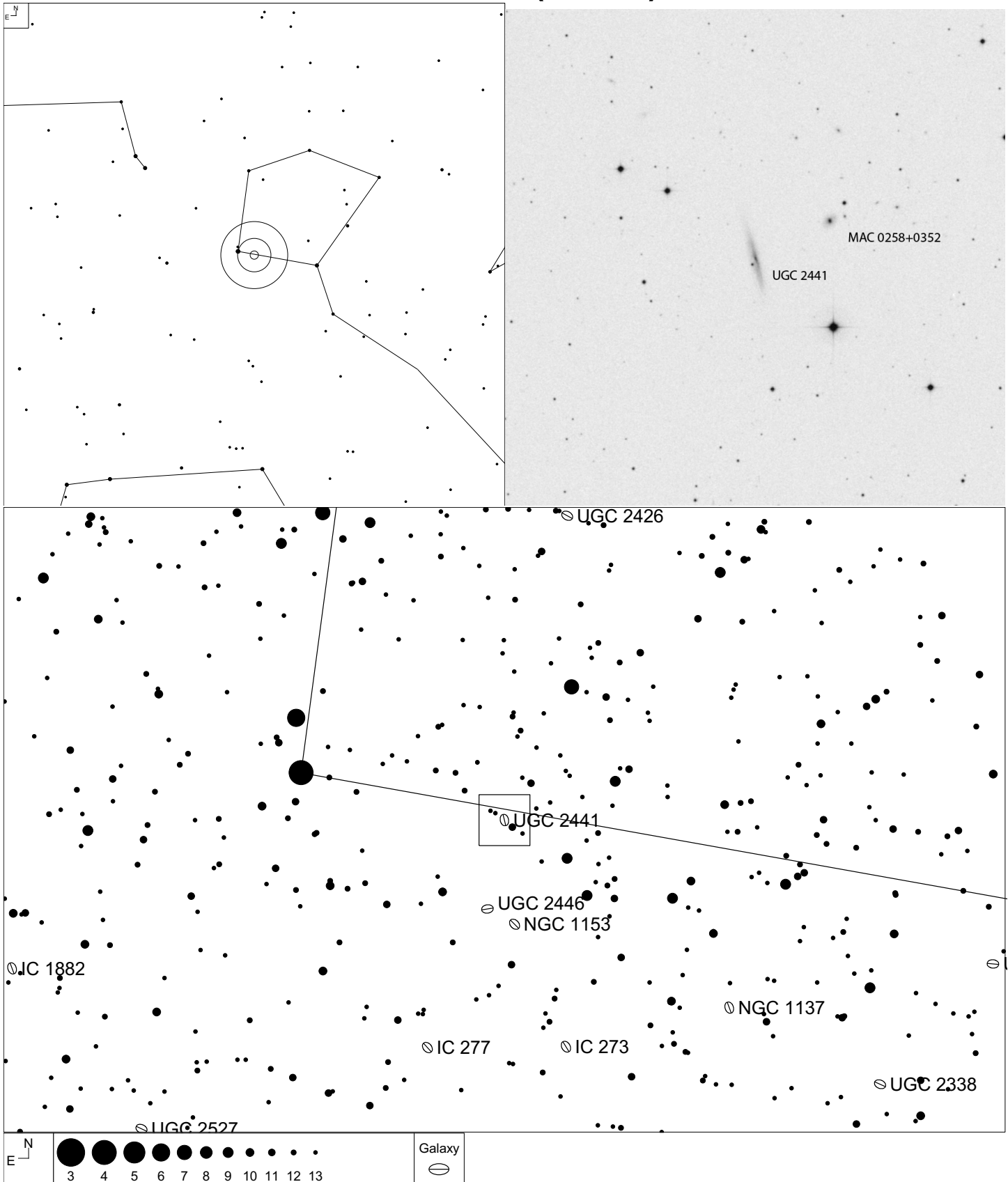
Name	RA	Dec	Mag	Size	Urano
UGC 1803	02h 20m 29.3s	+06°48'38"	14.7p	2.4 x 0.3'	99R

UGC 2092 (Cetus)



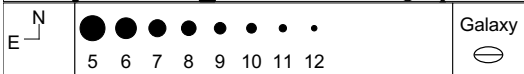
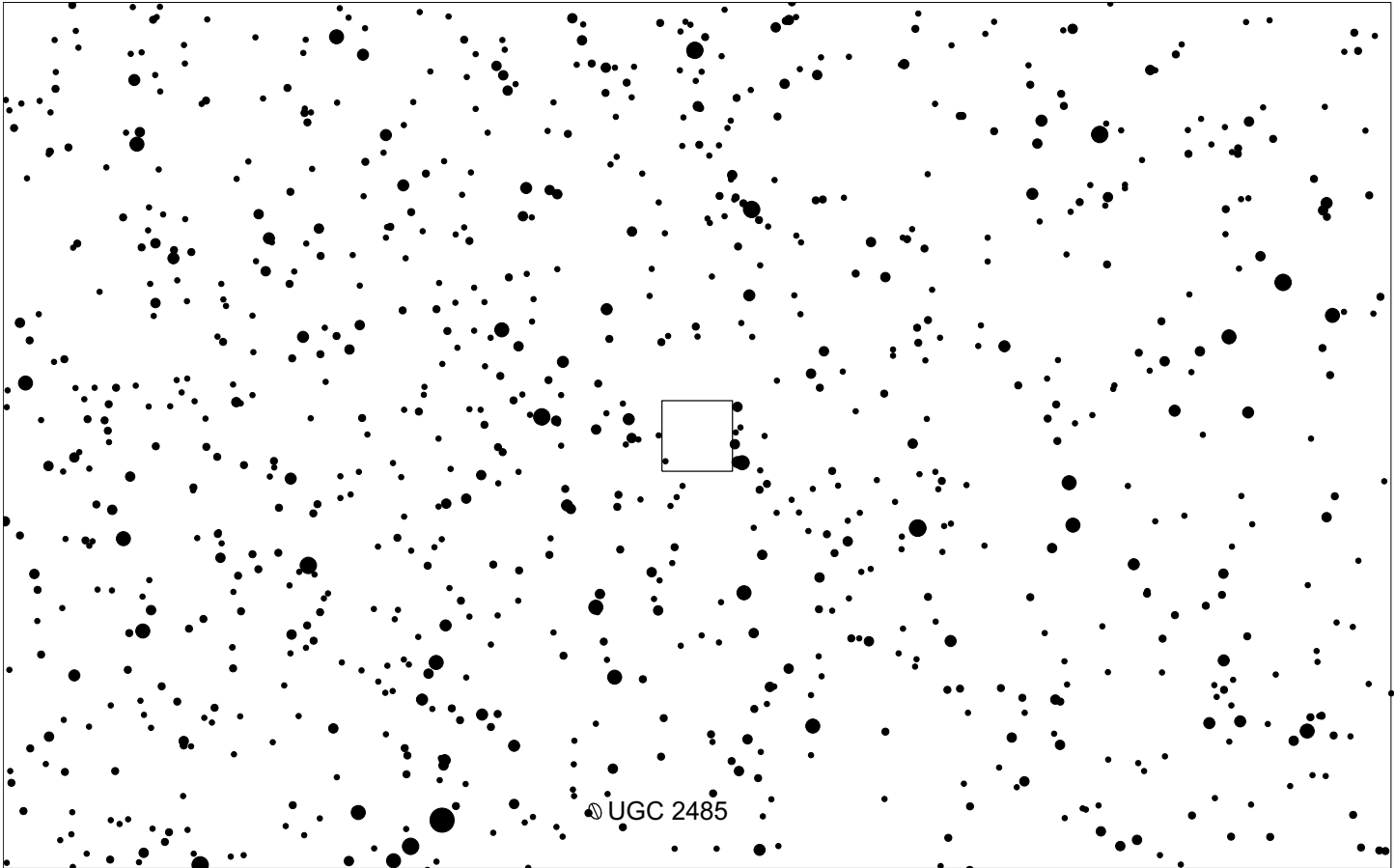
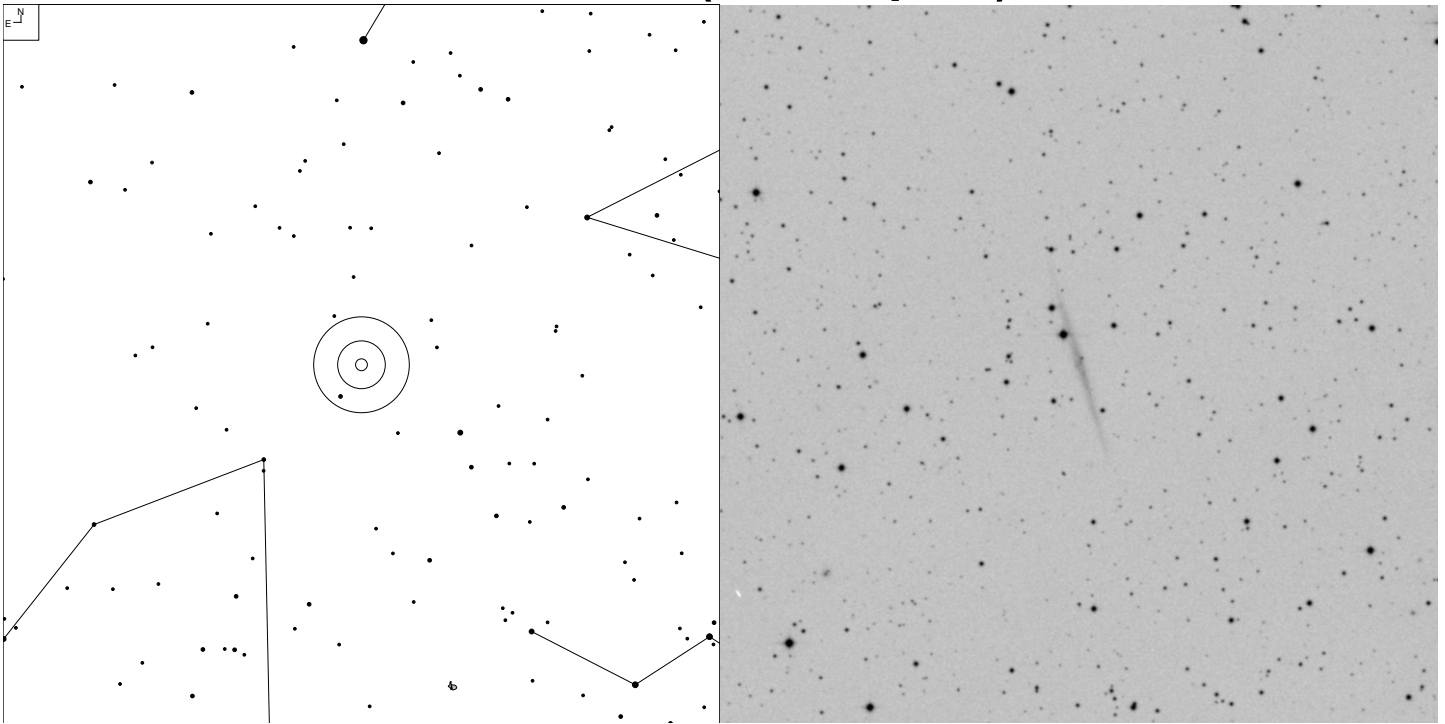
Name	RA	Dec	Mag	Size	Urano
UGC 2092	02h 36m 31.7s	+07°18'35"	15.1p	3.1 x 0.2'	99L

UGC 2441 (Cetus)



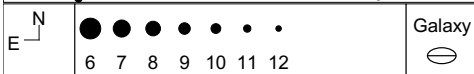
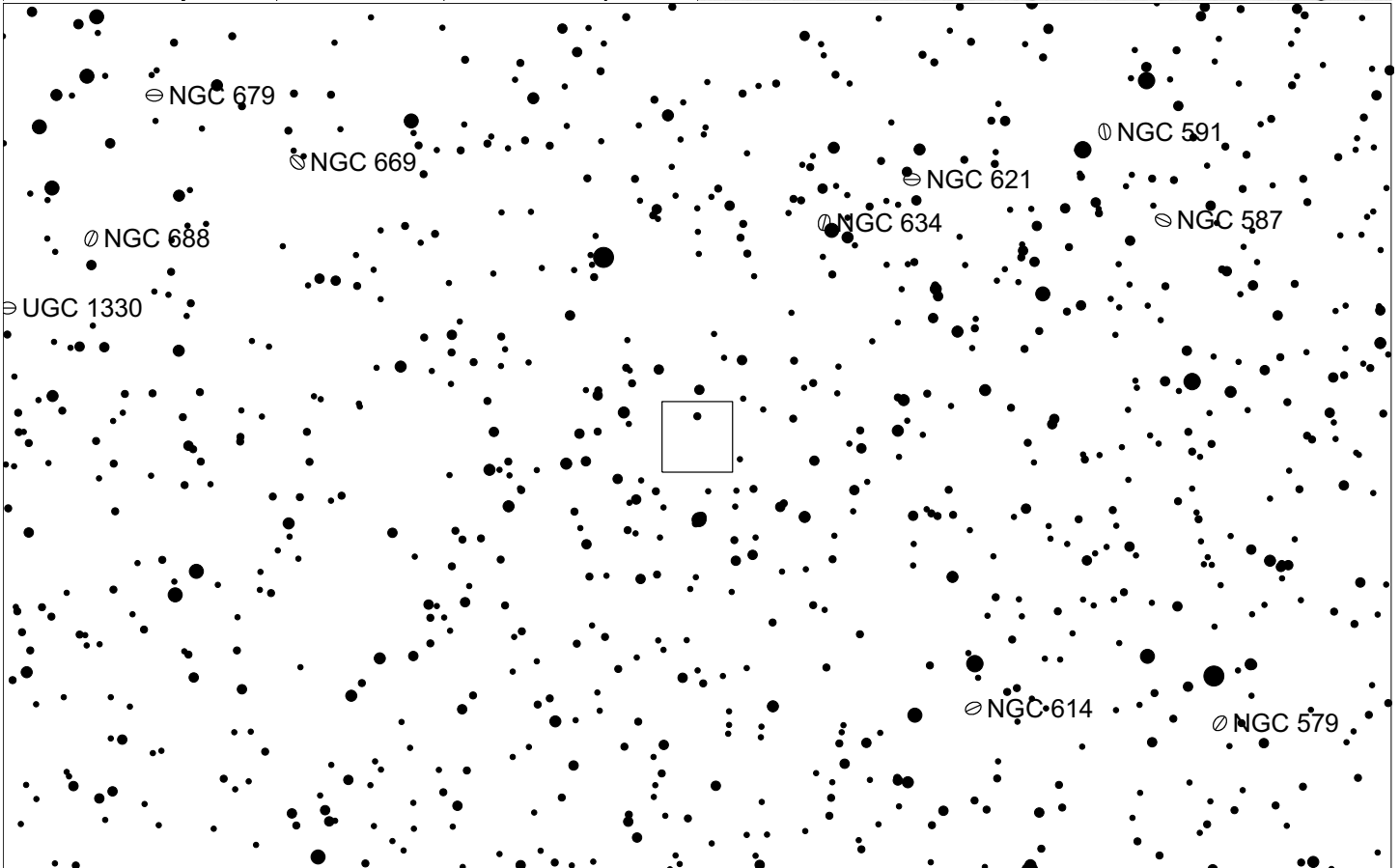
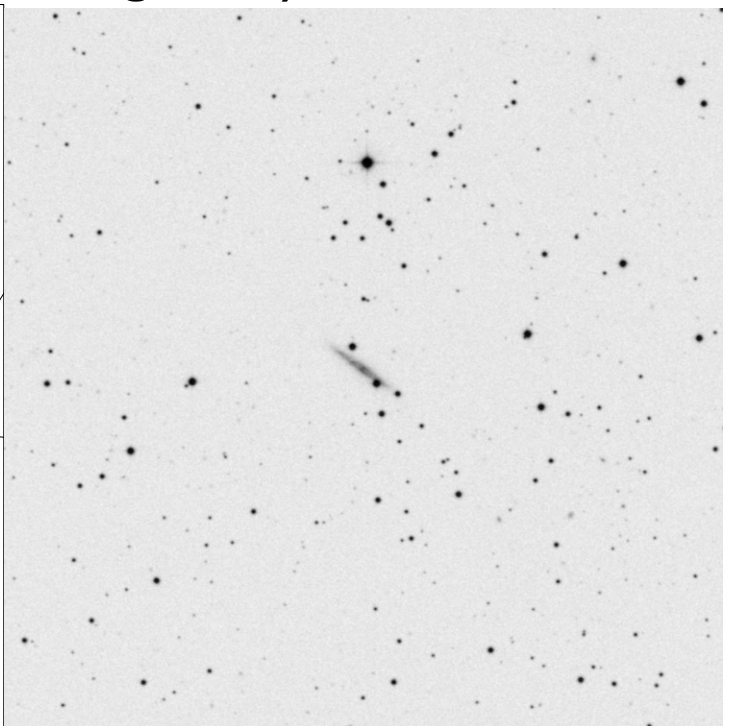
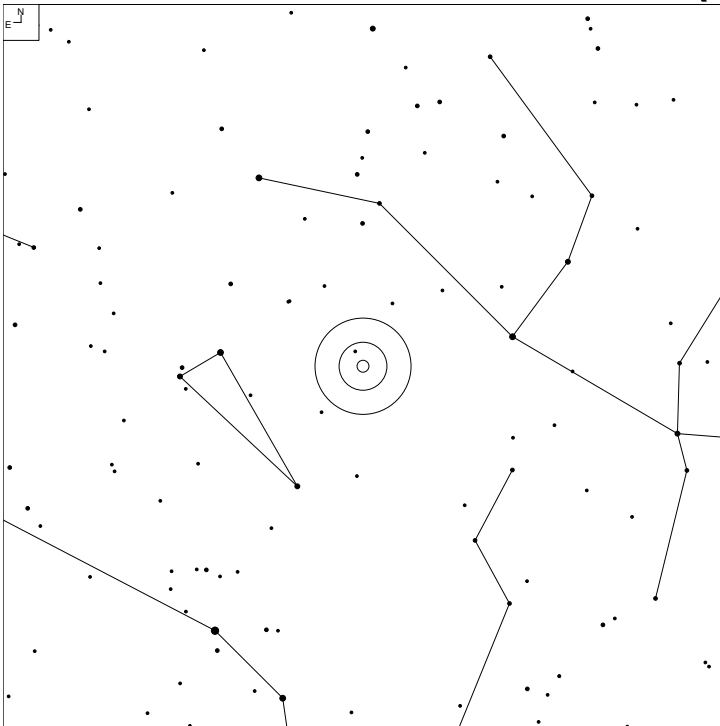
Name	RA	Dec	Mag	Size	Urano
UGC 2441	02h 58m 22.1s	+03°51'43"	14.6p	2.1 x 0.4'	119L

UGC 2411 (Cassiopeia)



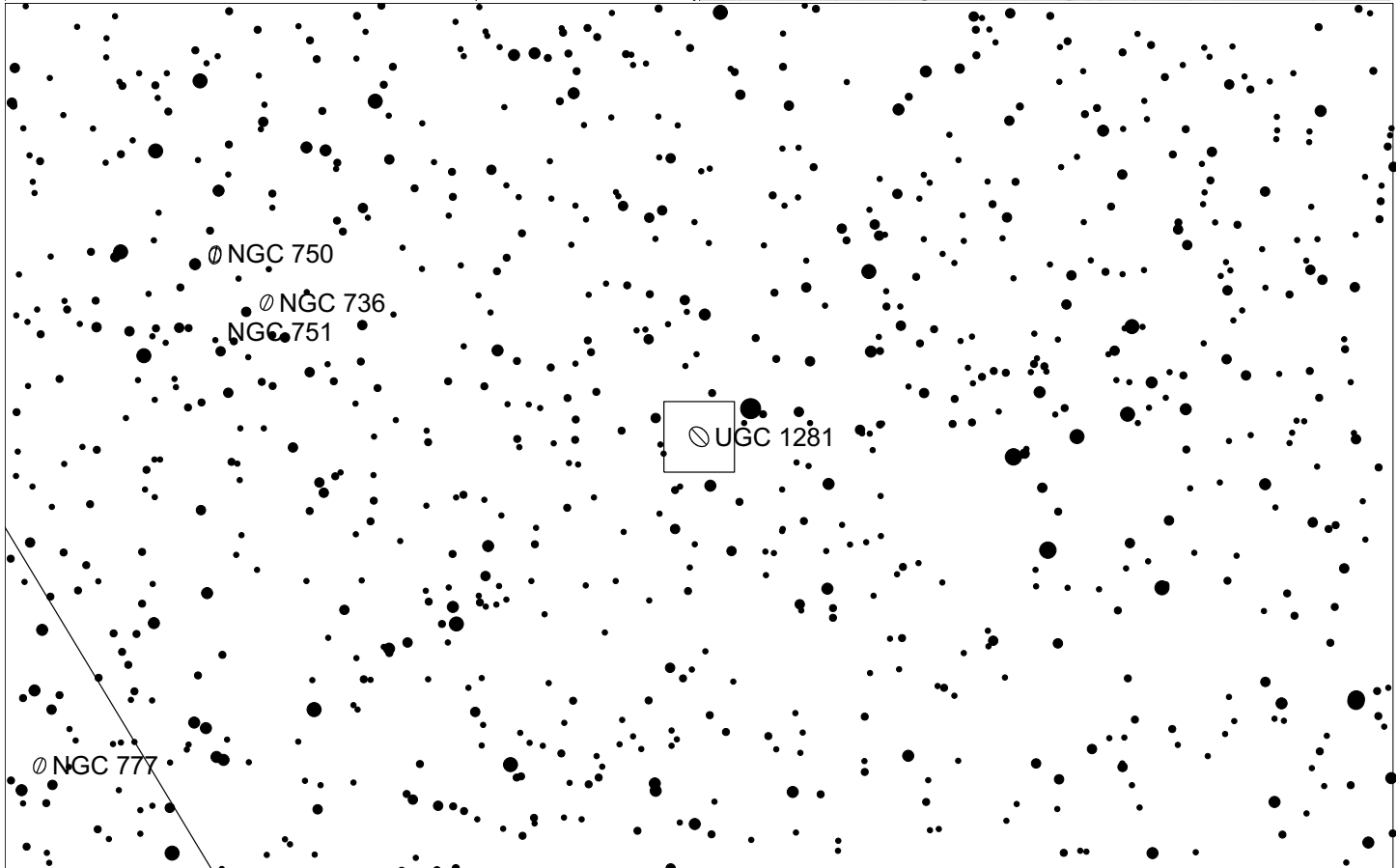
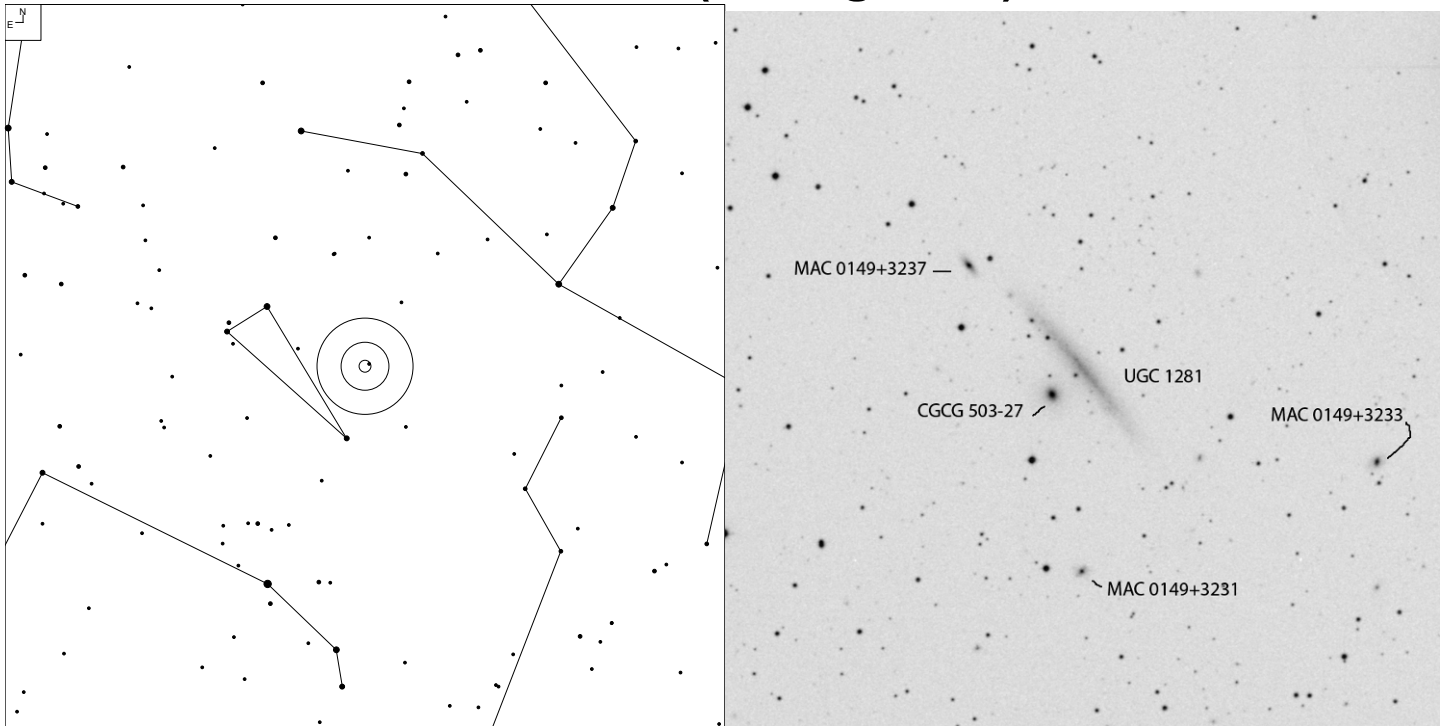
Name	RA	Dec	Mag	Size	Urano
UGC 2411	02h 58m 51.5s	+75°44'40"	16.2	4.1 x 0.2'	7R

UGC 1178 (Triangulum)



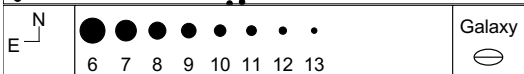
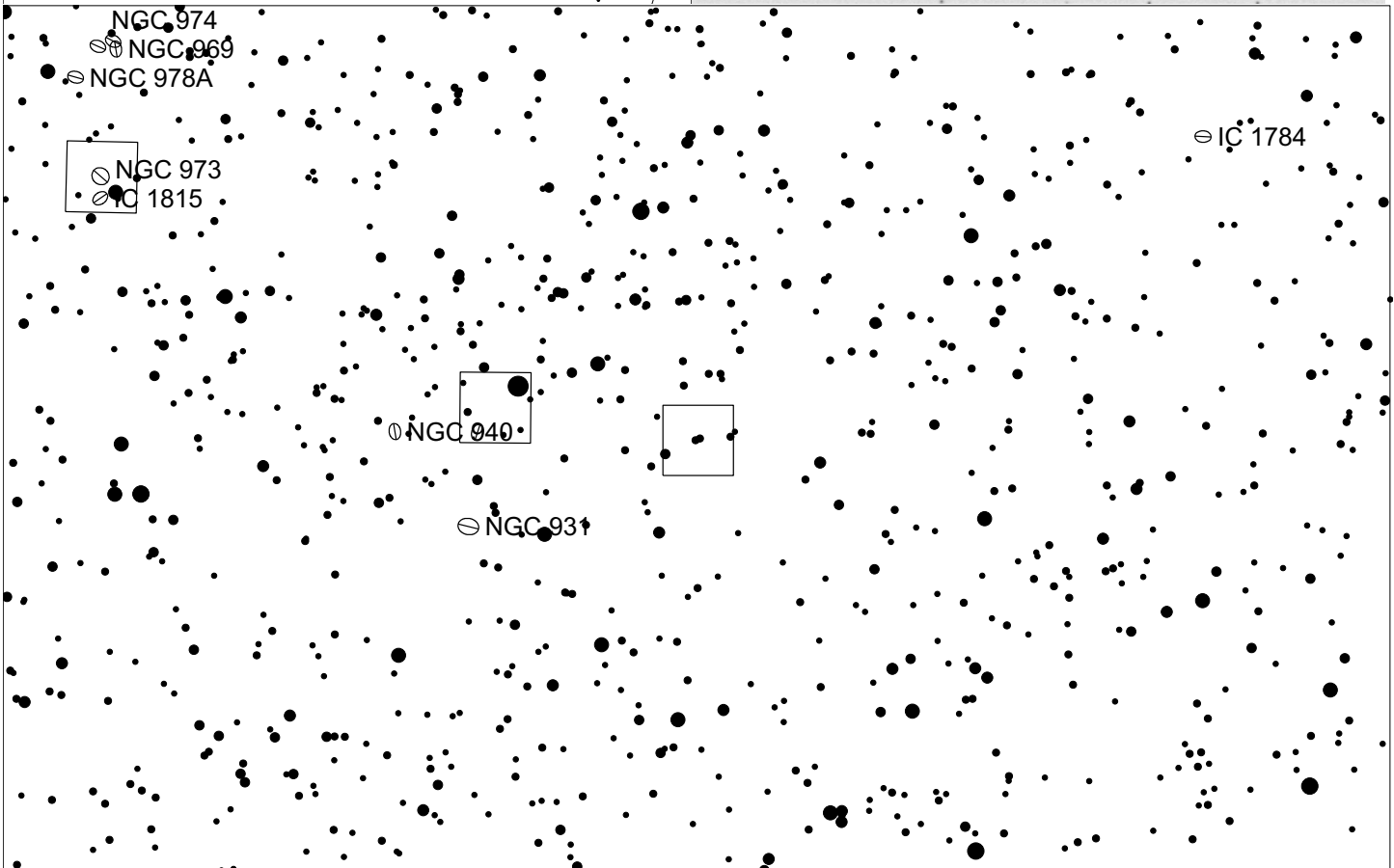
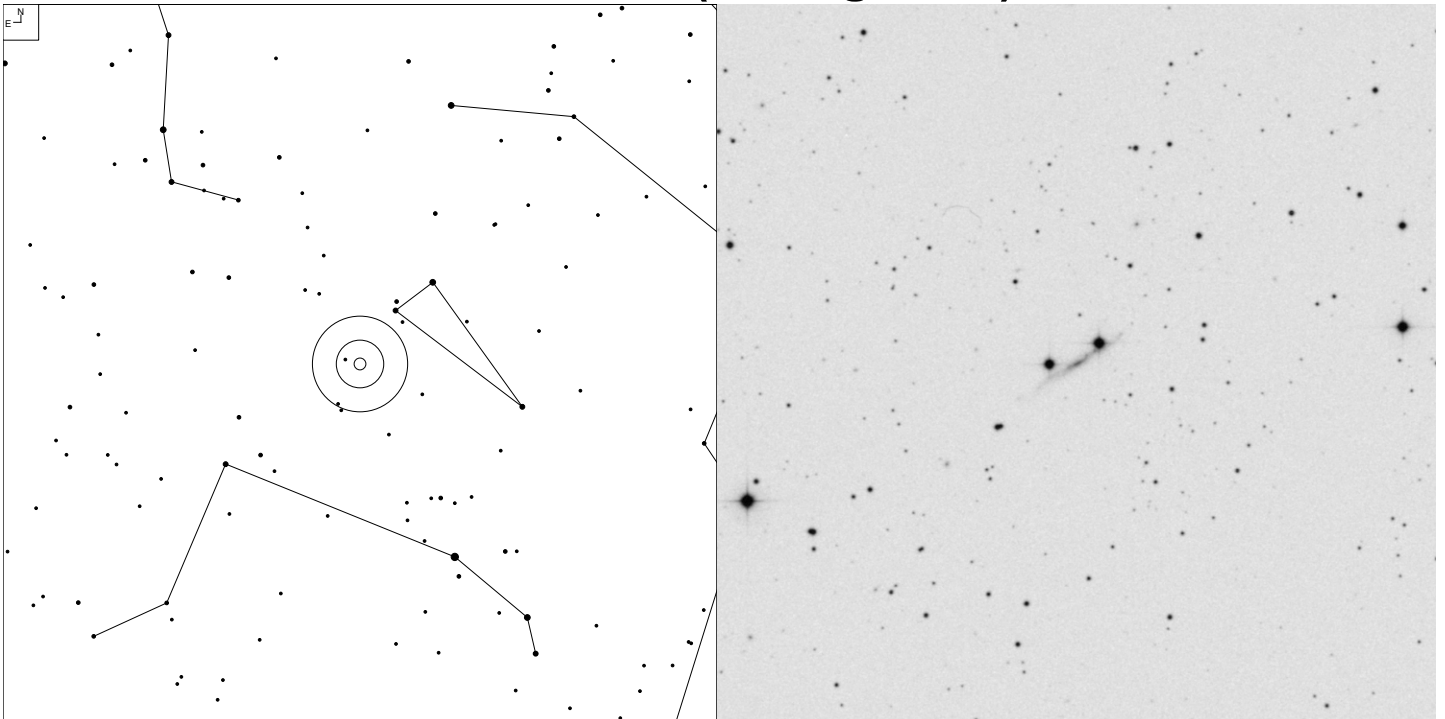
Name	RA	Dec	Mag	Size	Urano
UGC 1178	01h 40m 27.4s	+34°37'26"	14.7p	2.1 x 0.3'	62L

UGC 1281 (Triangulum)



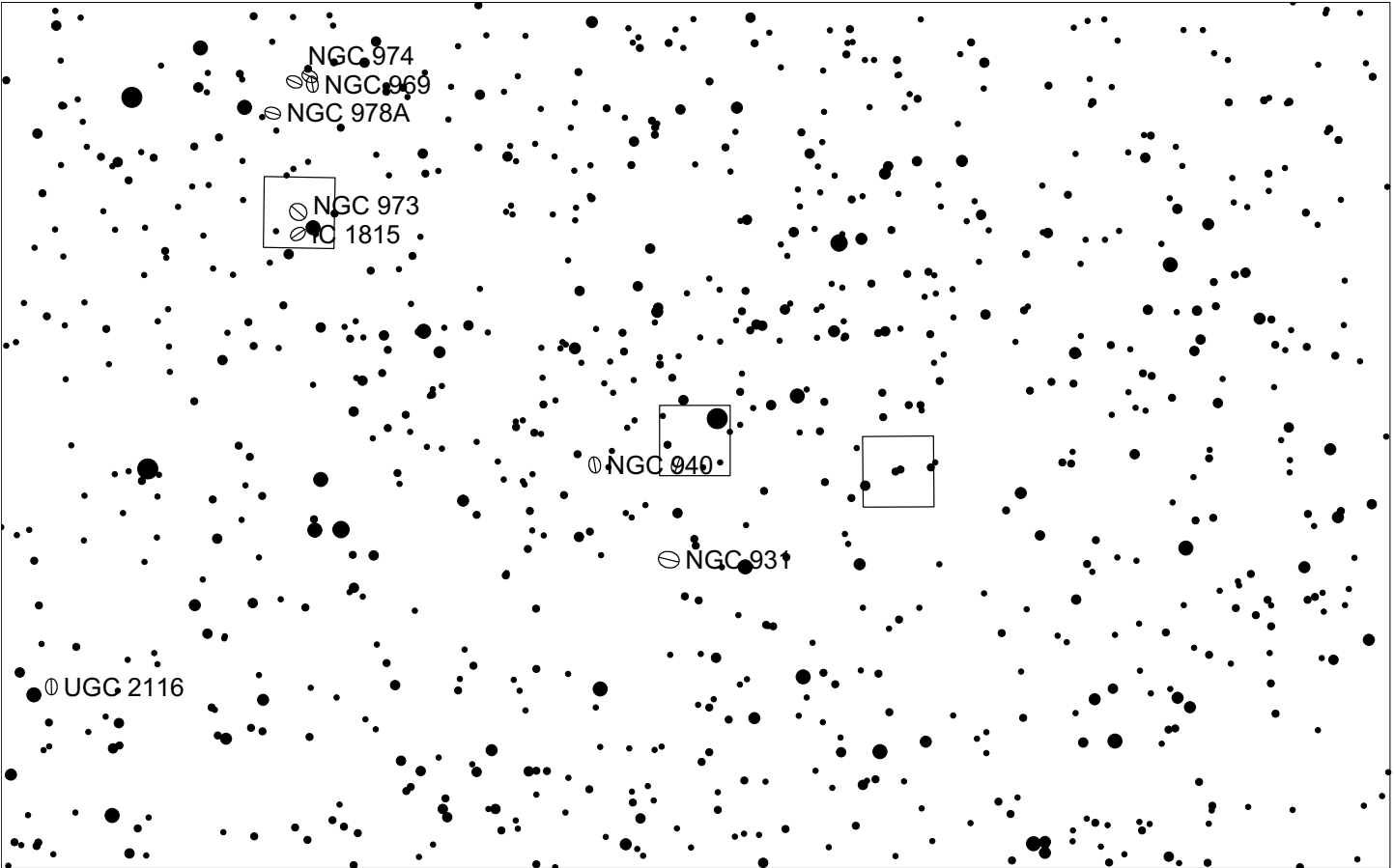
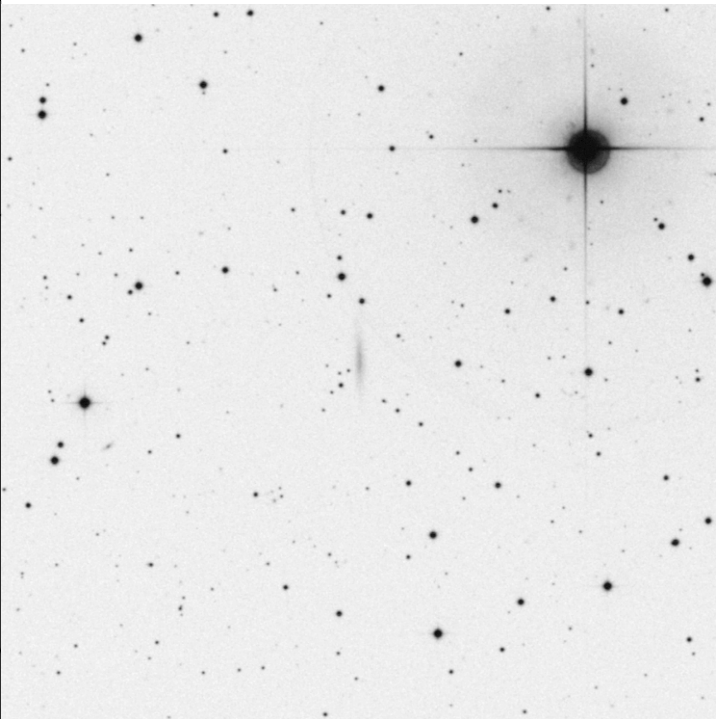
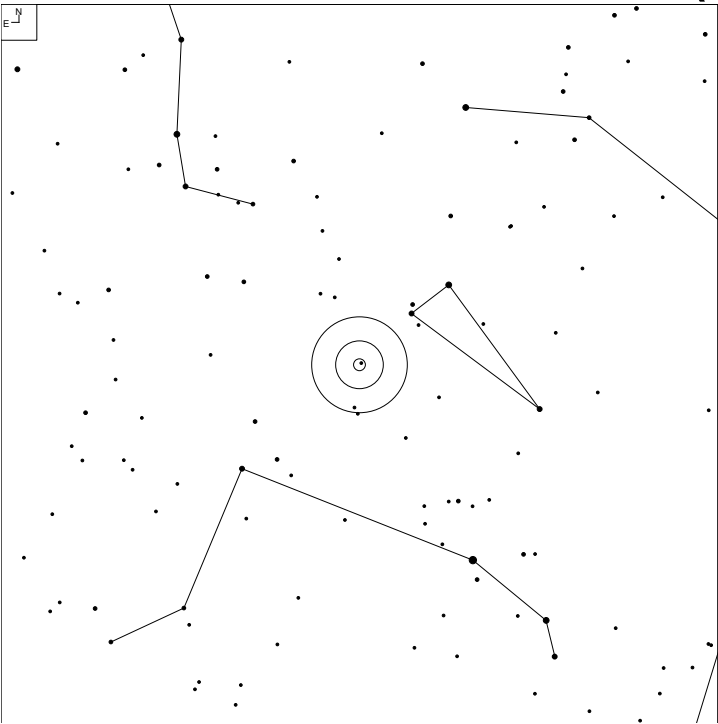
Name	RA	Dec	Mag	Size	Urano
UGC 1281	01h 49m 31.4s	+32°35'20"	12.9p	4.5 x 0.5'	62L

UGC 1856 (Triangulum)



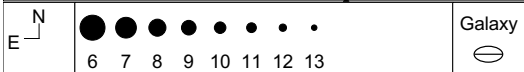
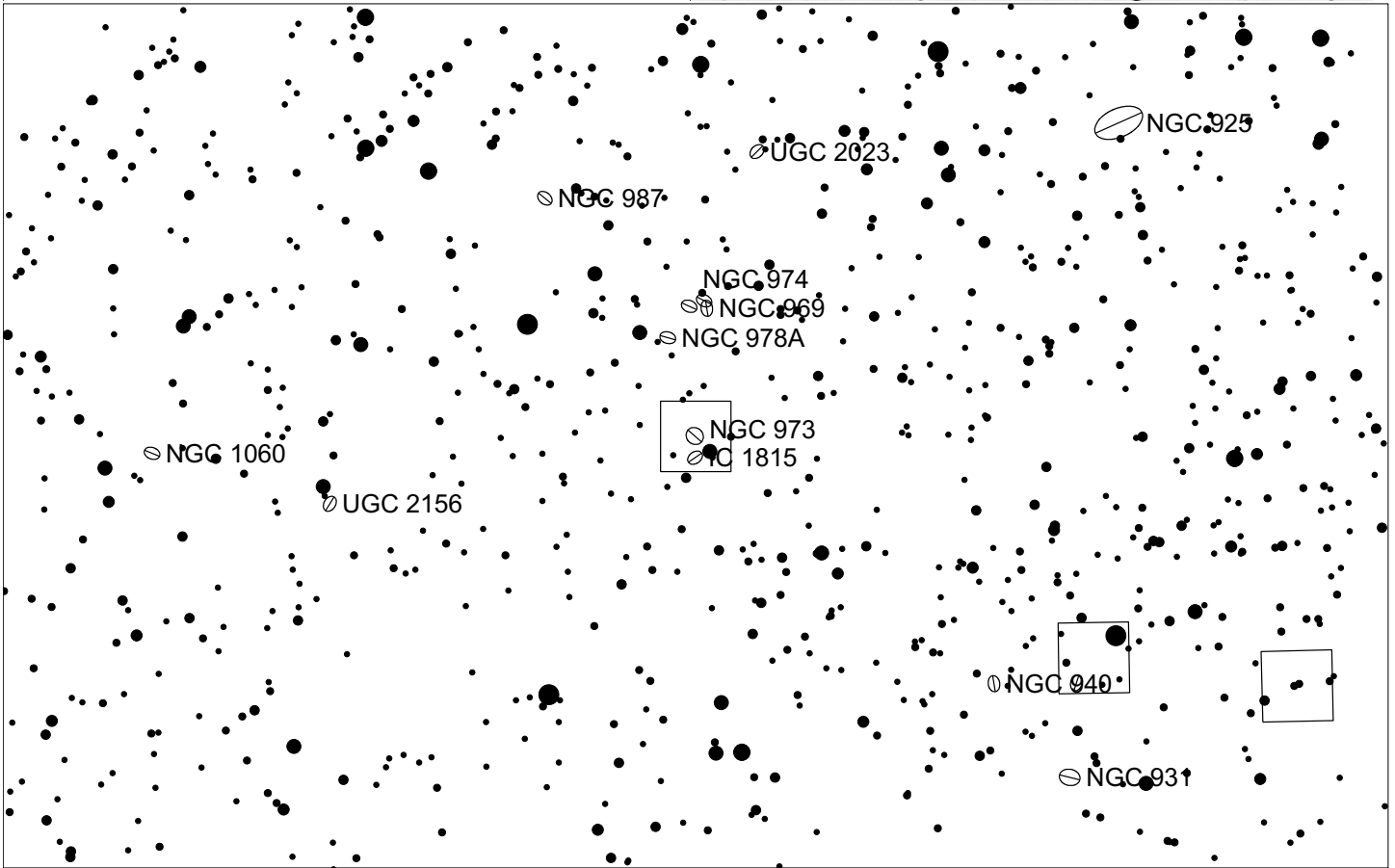
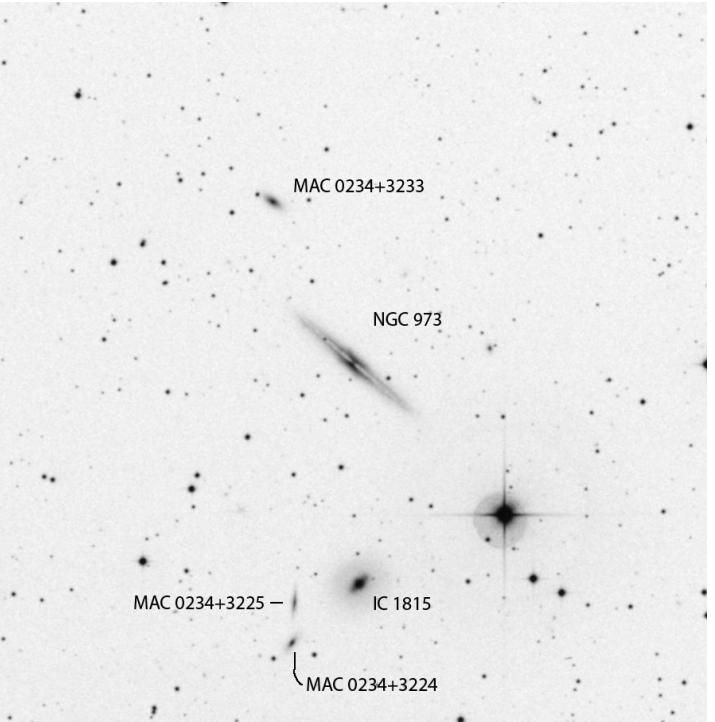
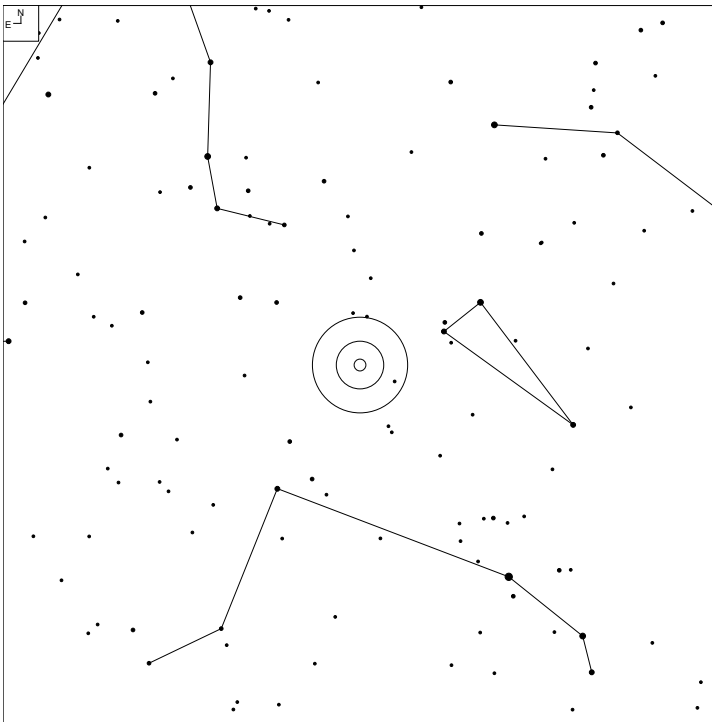
Name	RA	Dec	Mag	Size	Urano
UGC 1856	02h 24m 31.8s	+31°36'57"	14.8p	2.7 x 0.4'	61R

UGC 1924 (Triangulum)



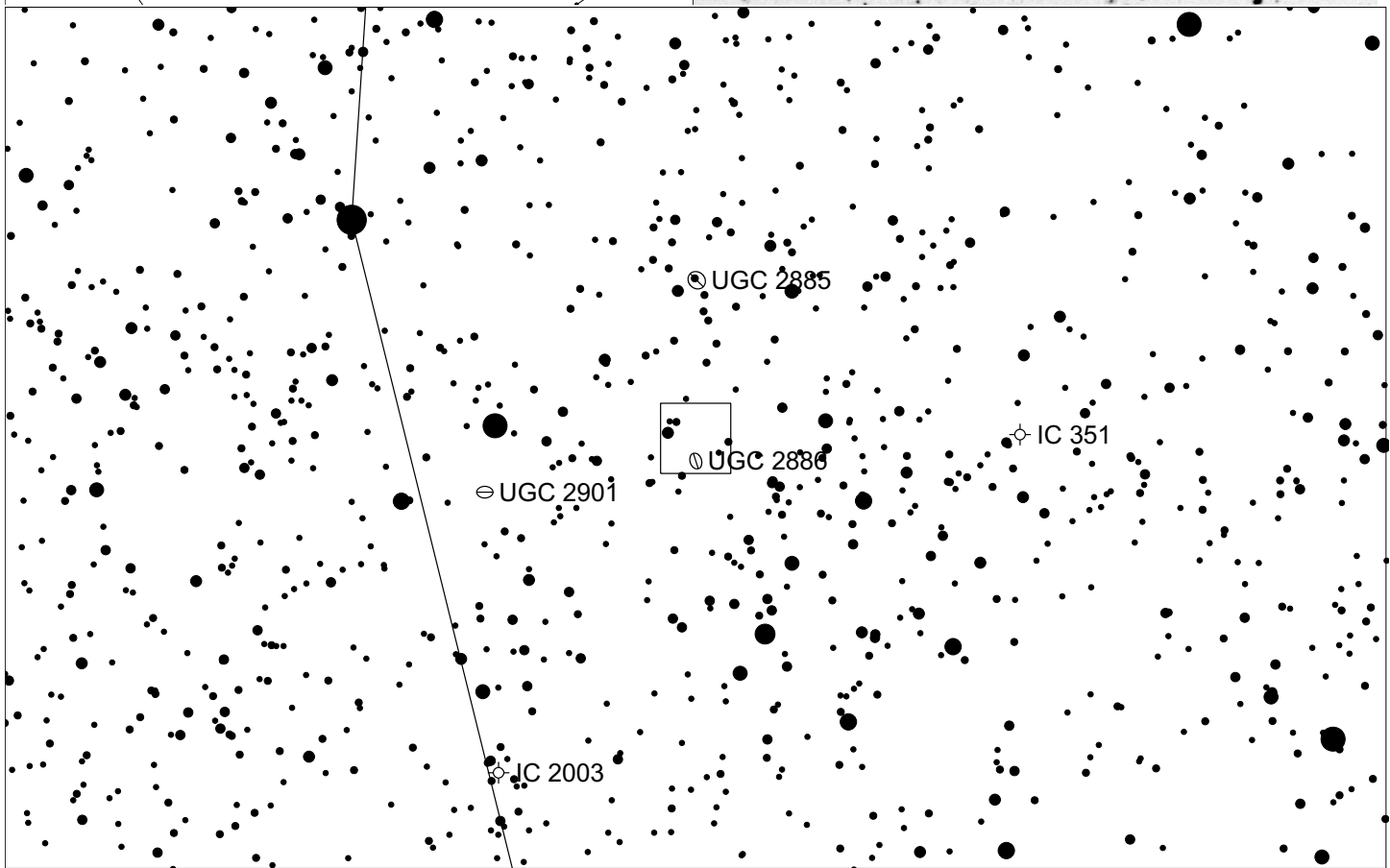
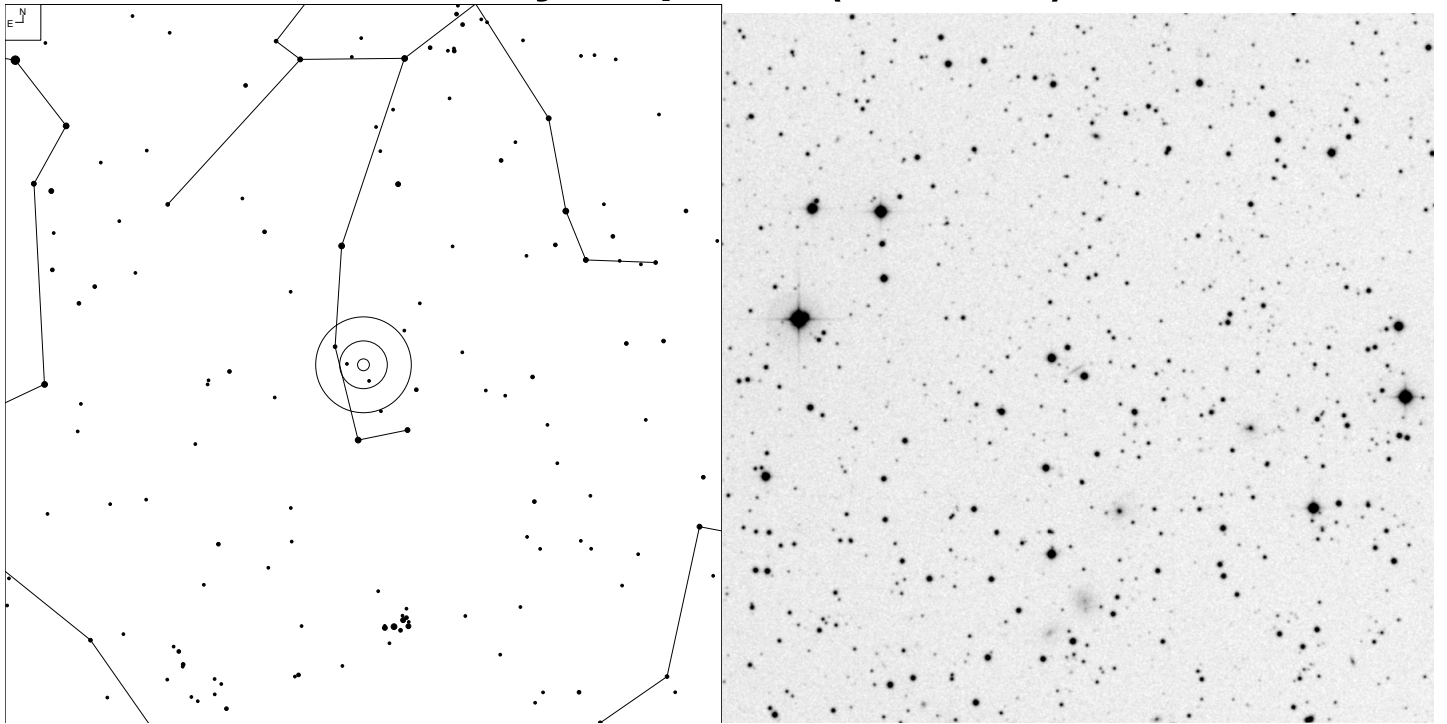
Name	RA	Dec	Mag	Size	Urano
UGC 1924	02h 27m 49.7s	+31°43'36"	15.2p	2.2 x 0.3'	61R

NGC 973 (Triangulum)



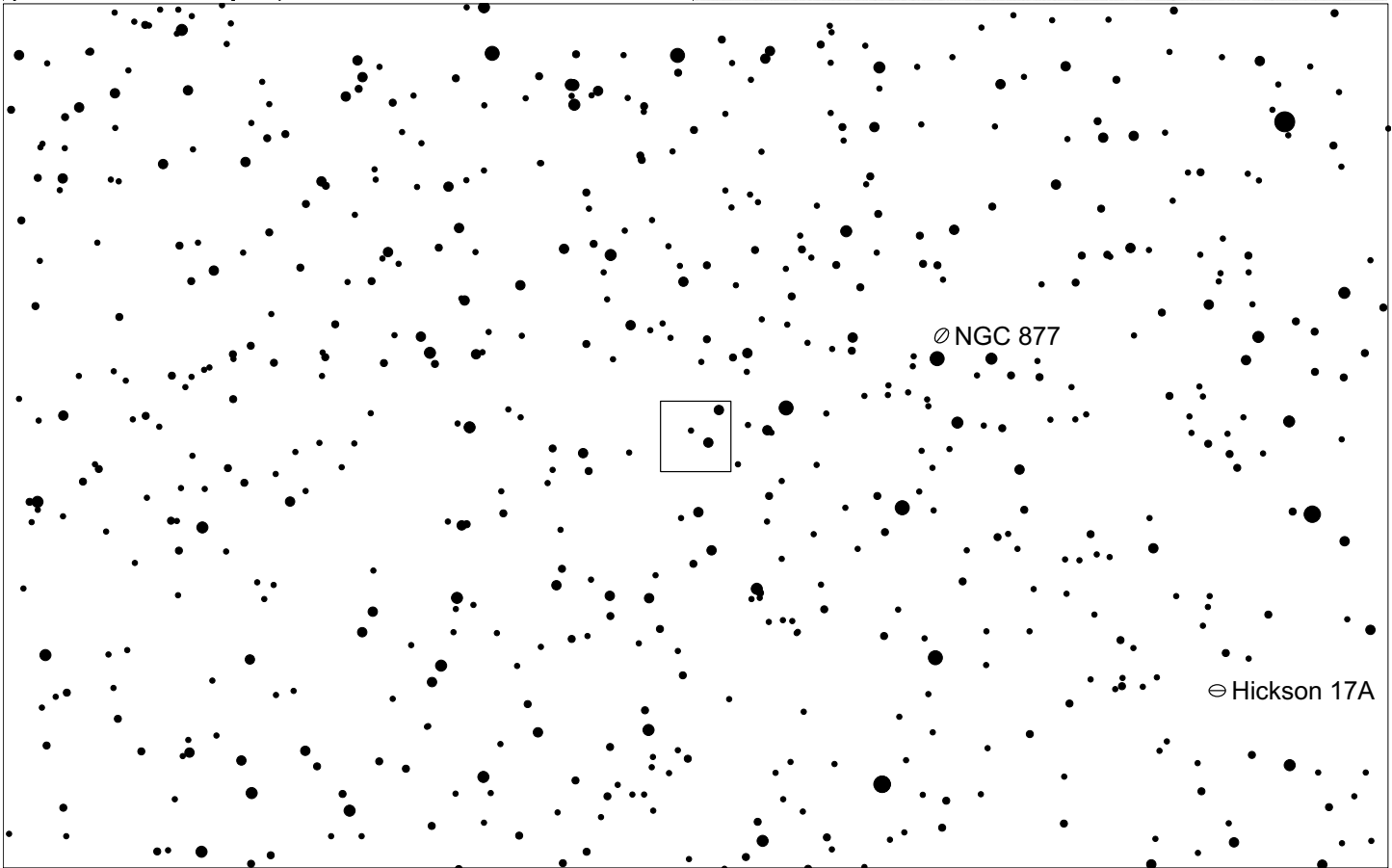
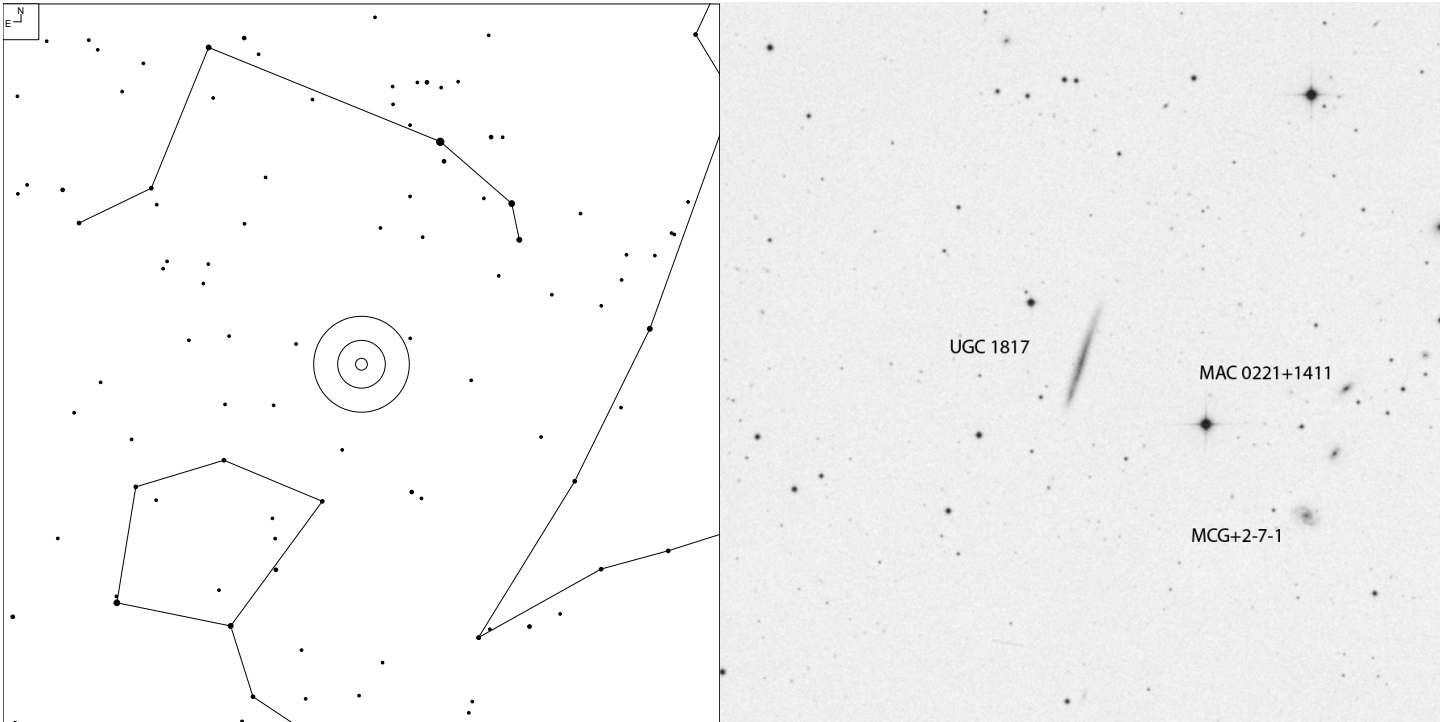
Name	RA	Dec	Mag	Size	Urano
NGC 973	02h 34m 20.5s	+32°30'21"	13.6p	3.7 x 0.6'	61R

Lowrey's Special (Perseus)



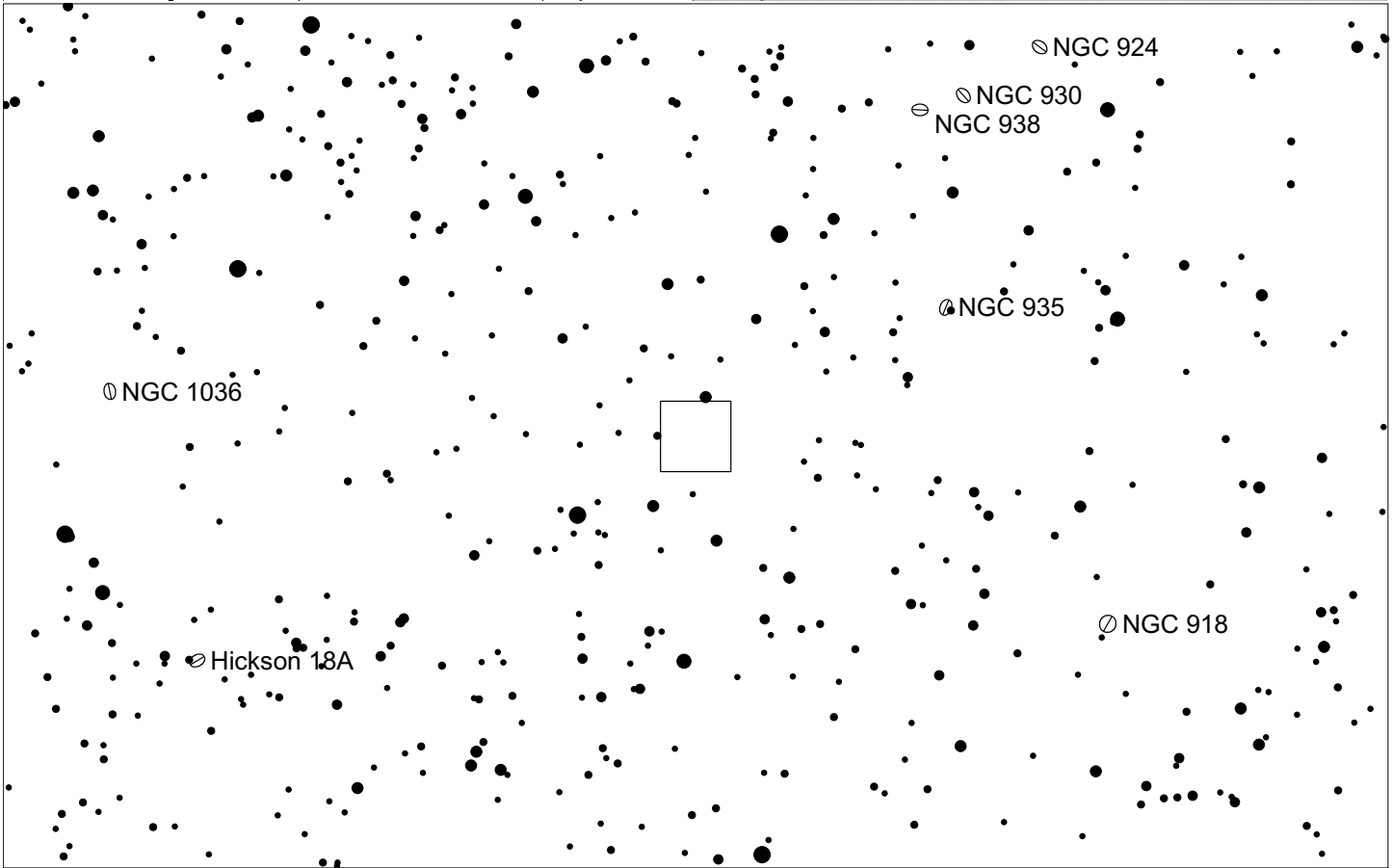
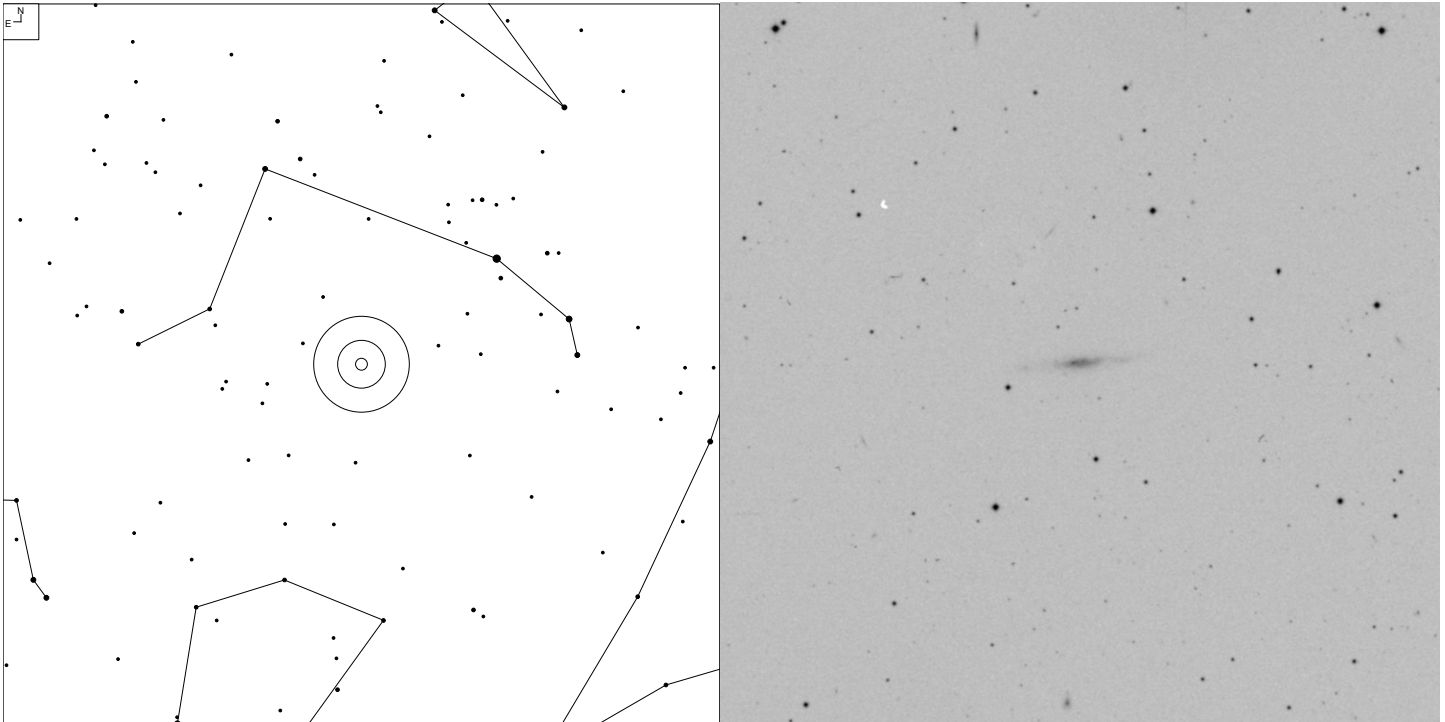
Name	RA	Dec	Mag	Size	Urano
Lowrey's Special	03h 53m 03.9s	+35°02'23"	-	-	60R

UGC 1817 (Aries)



Name	RA	Dec	Mag	Size	Urano
UGC 1817	02h 21m 31.2s	+14°11'53"	14.6p	2.4 x 0.2'	99R

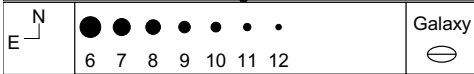
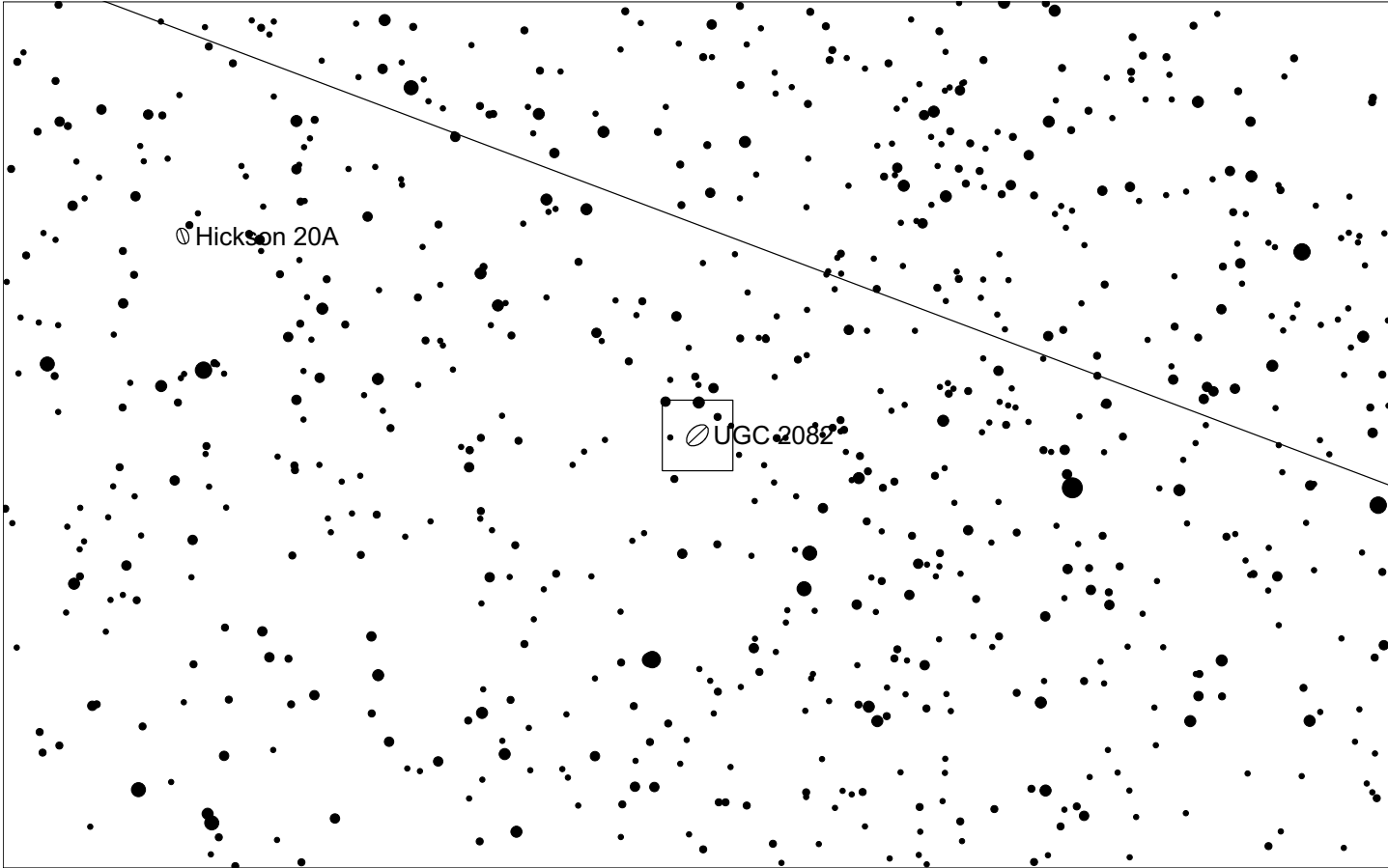
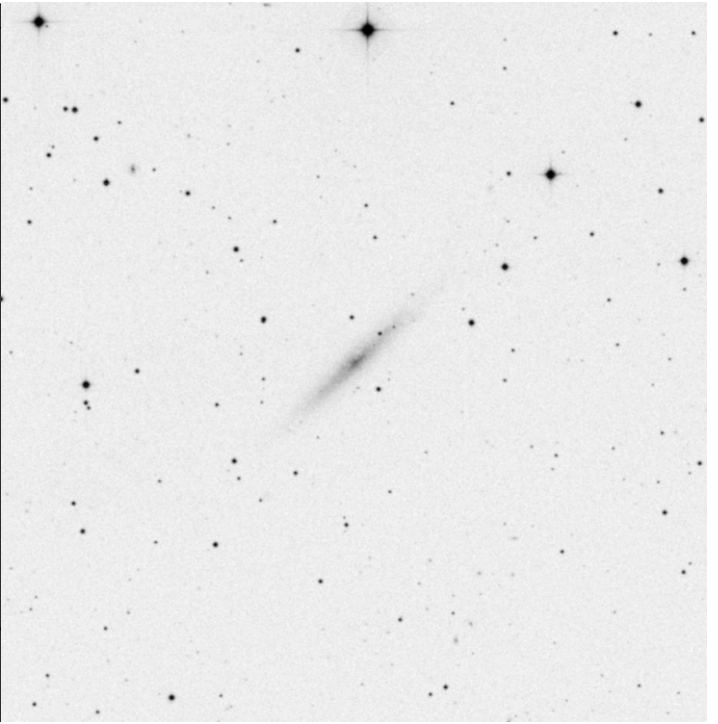
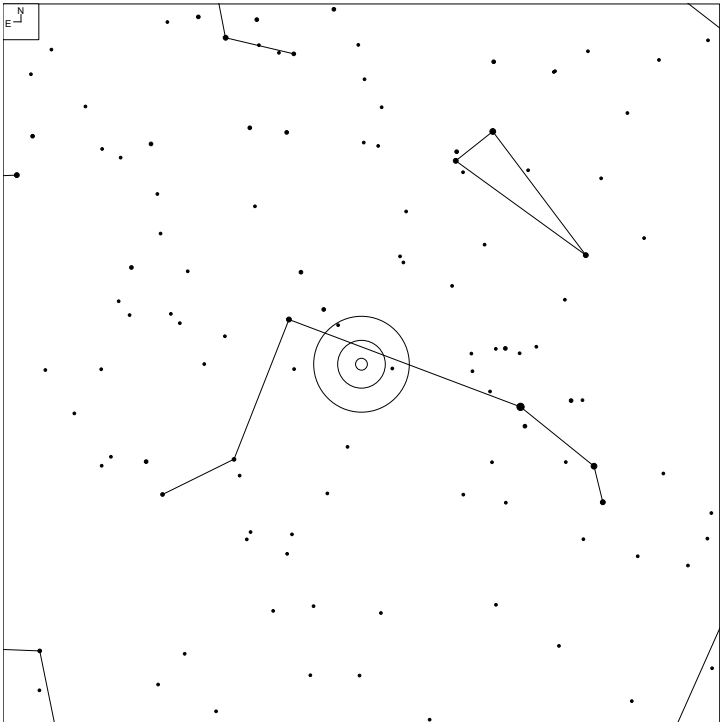
UGC 1999 (Aries)



Galaxy

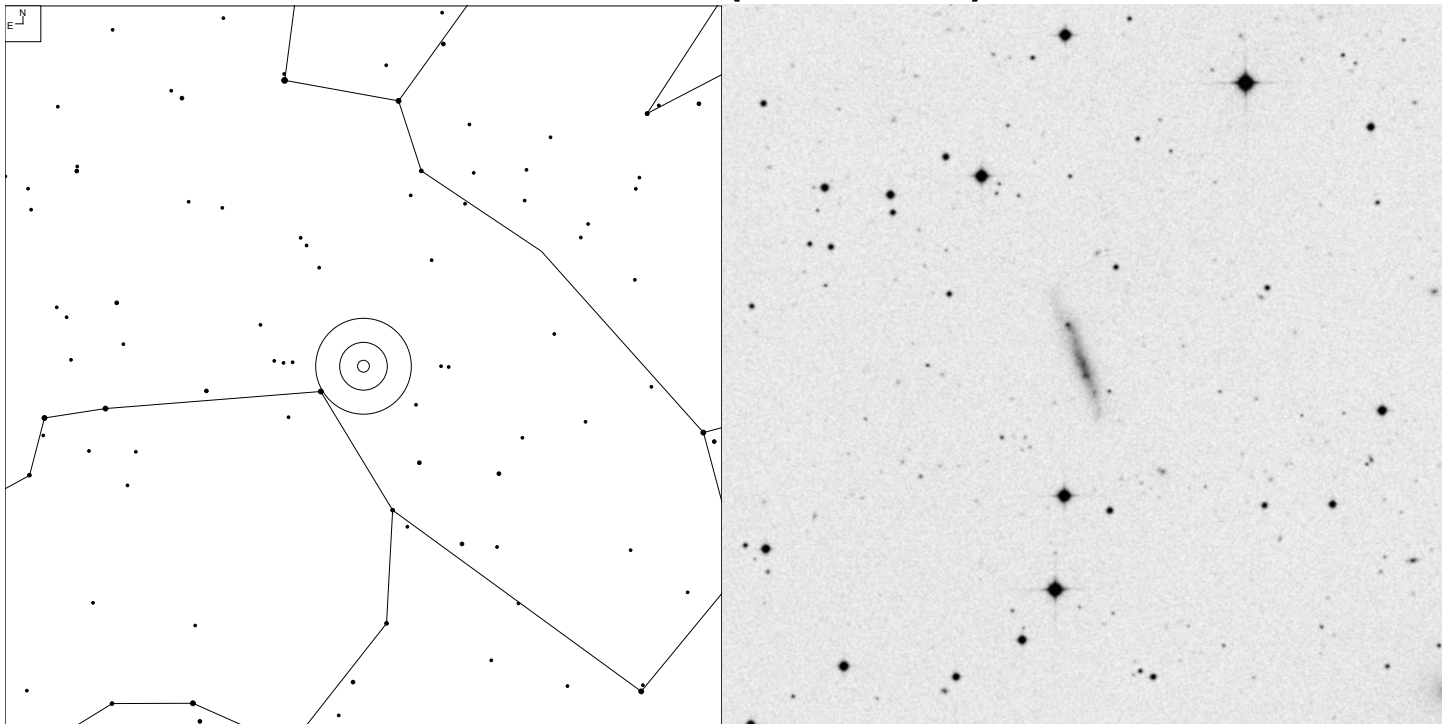
Name	RA	Dec	Mag	Size	Urano
UGC 1999	02h 31m 52.6s	+19°09'11"	14.6p	3.1 x 0.4'	79R

UGC 2082 (Aries)

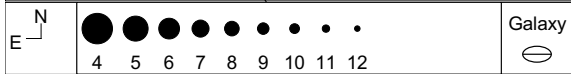
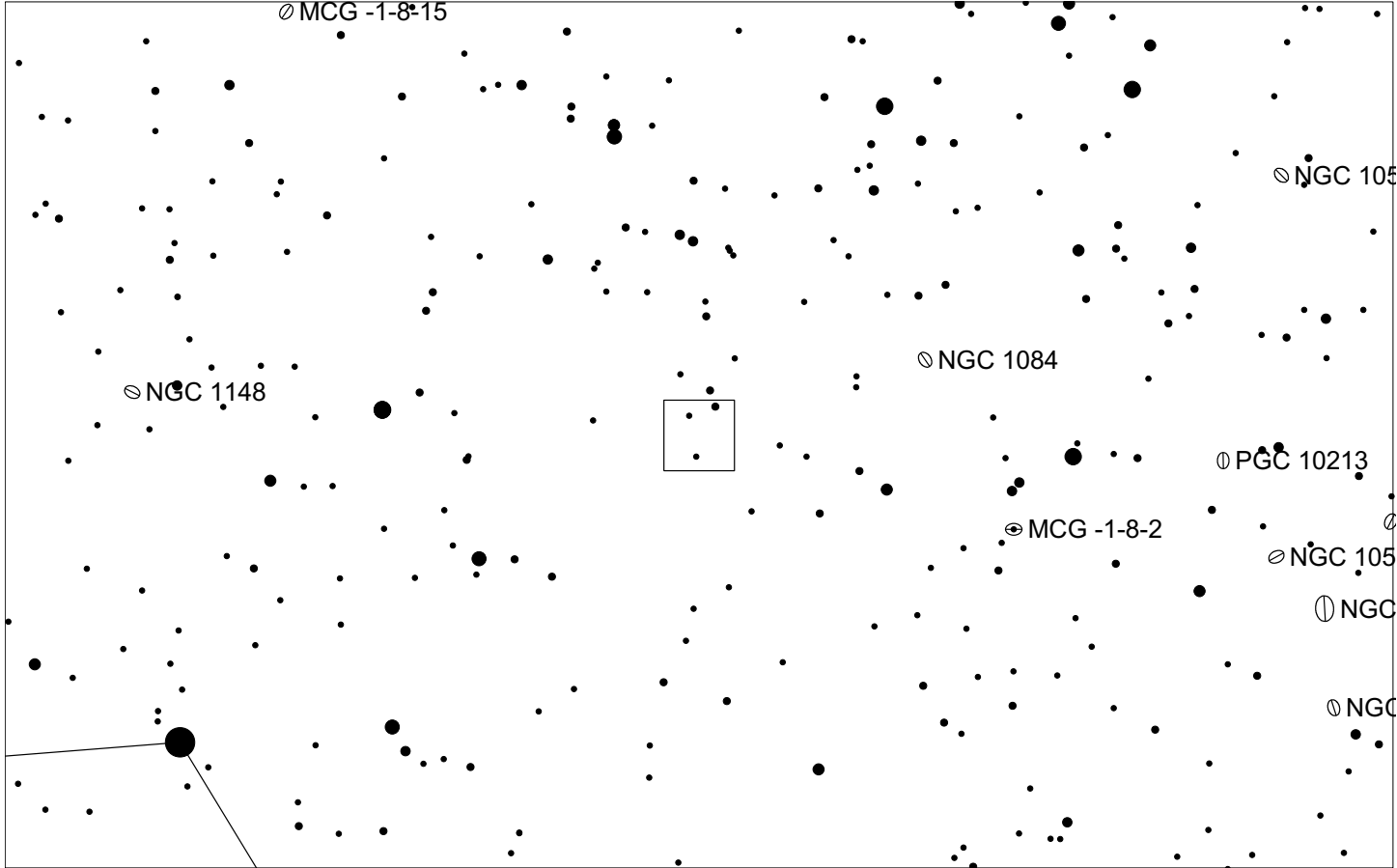


Name	RA	Dec	Mag	Size	Urano
UGC 2082	02h 36m 16.3s	+25°25'25"	13.7b	5.3 x 0.8'	79R

NGC 1110 (Eridanus)

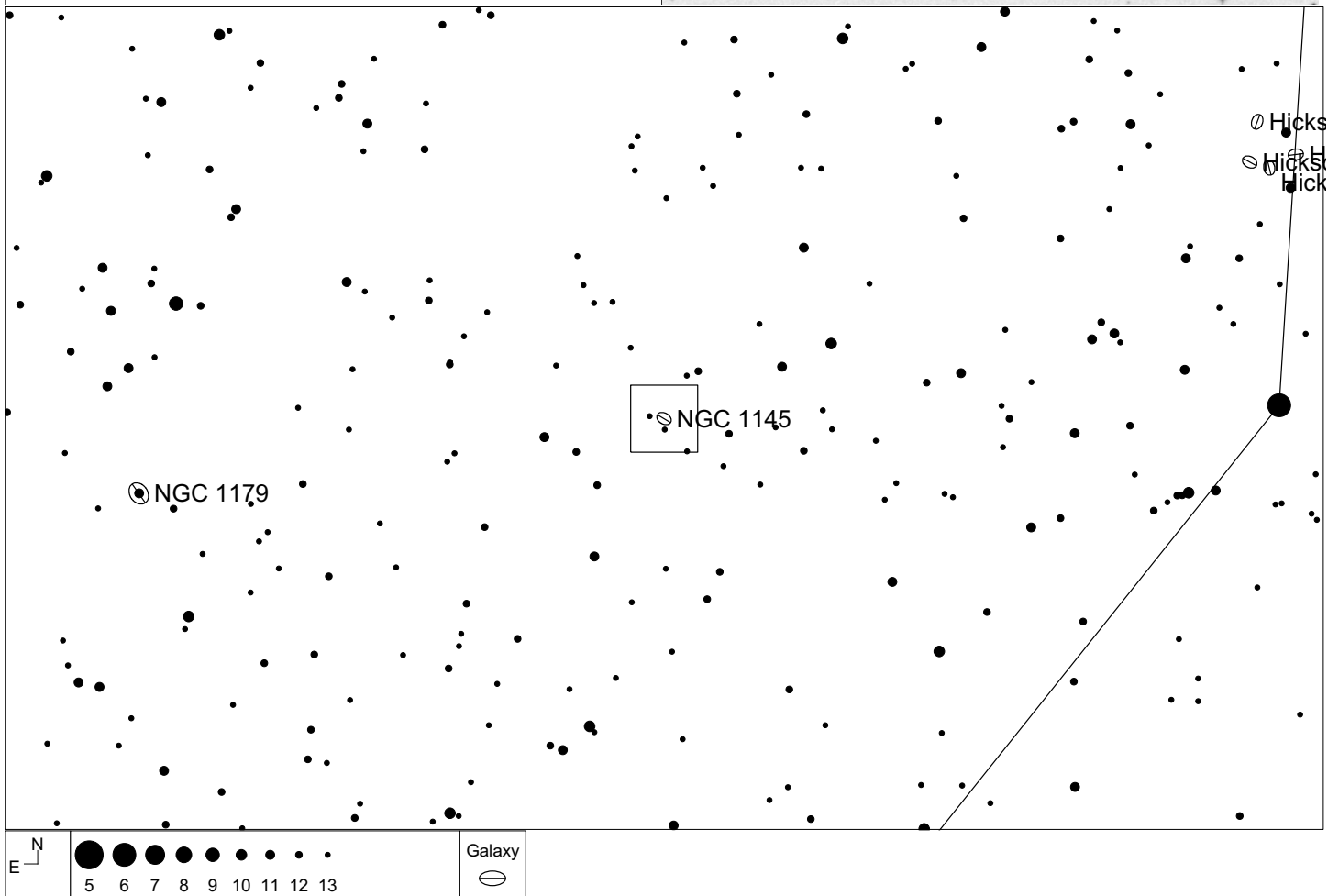
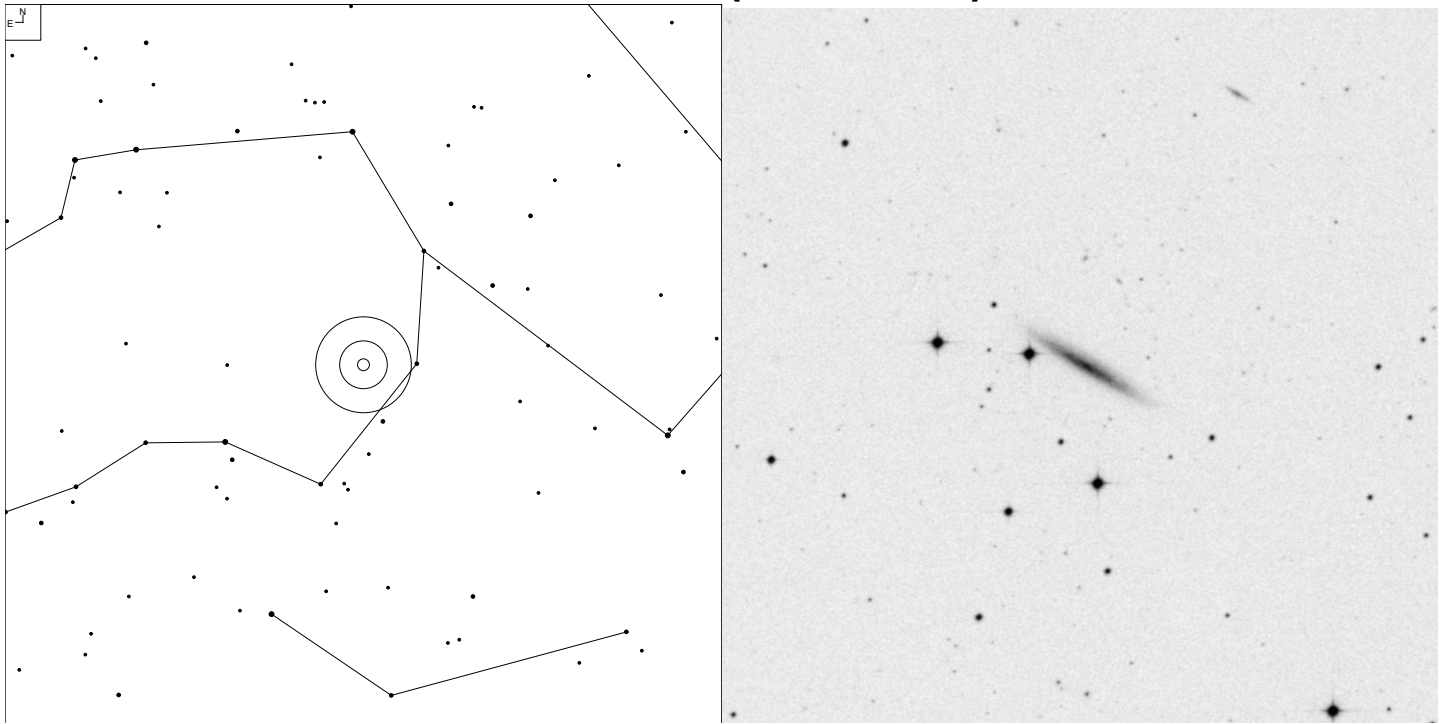


∅ MCG -1-8-15



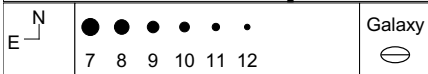
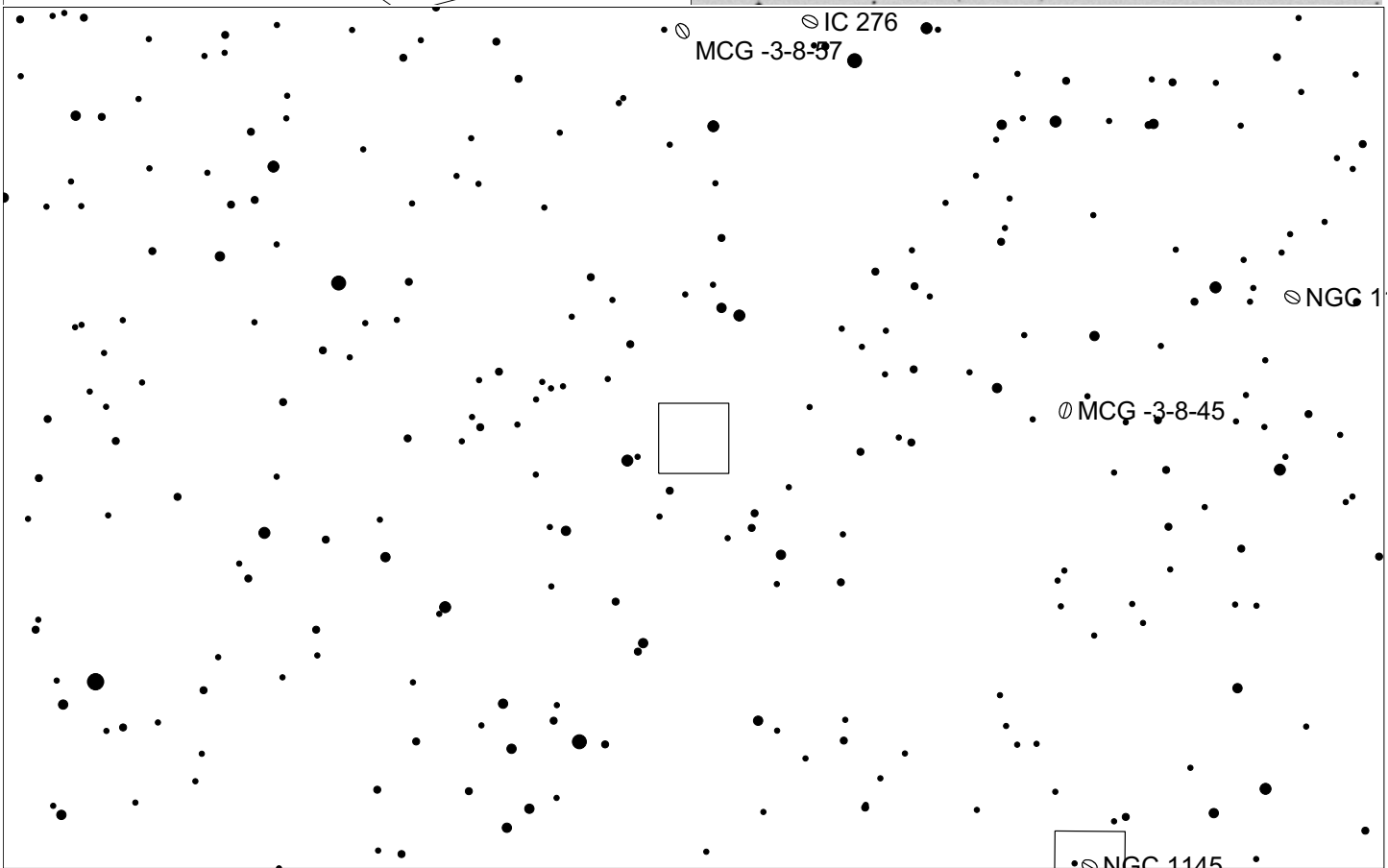
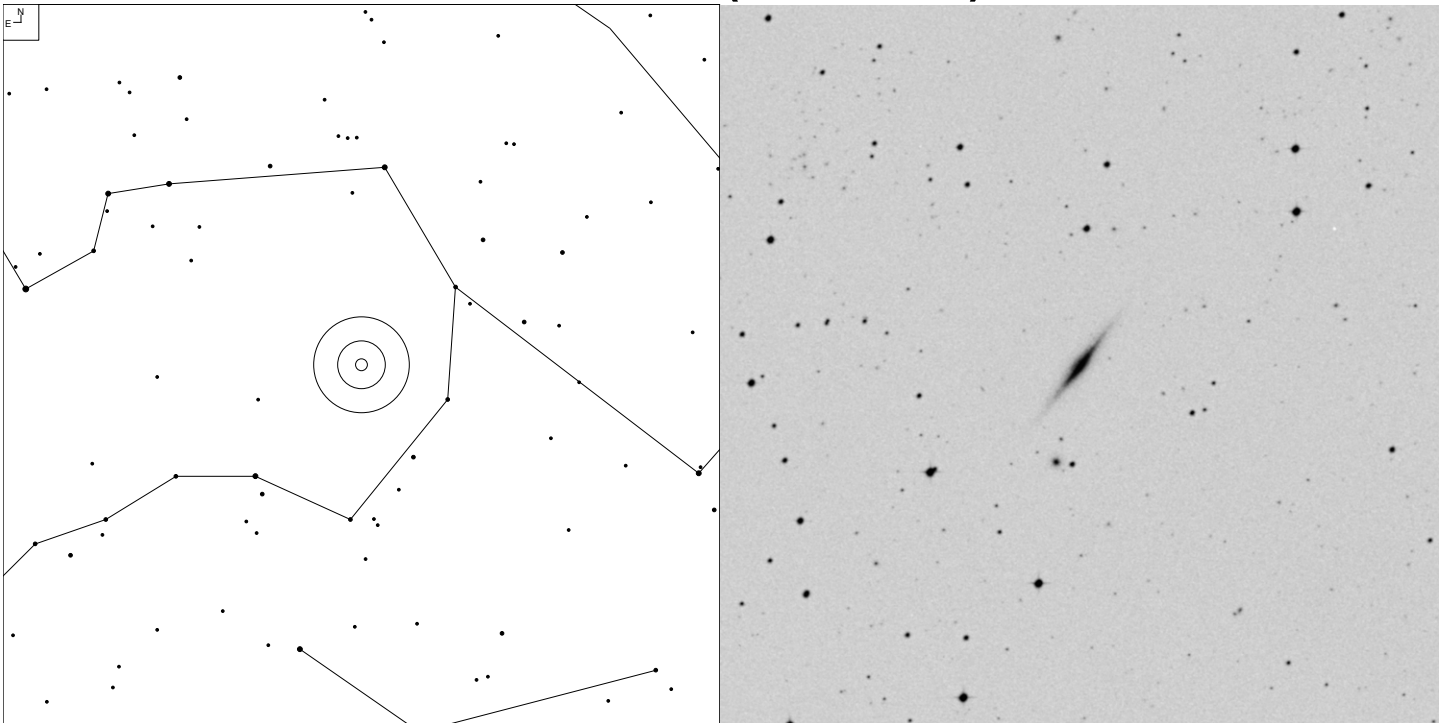
Name	RA	Dec	Mag	Size	Urano
NGC 1110	02h 49m 09.4s	-07°50'15"	15.0	2.8 x 0.5'	139L

NGC 1145 (Eridanus)



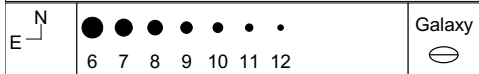
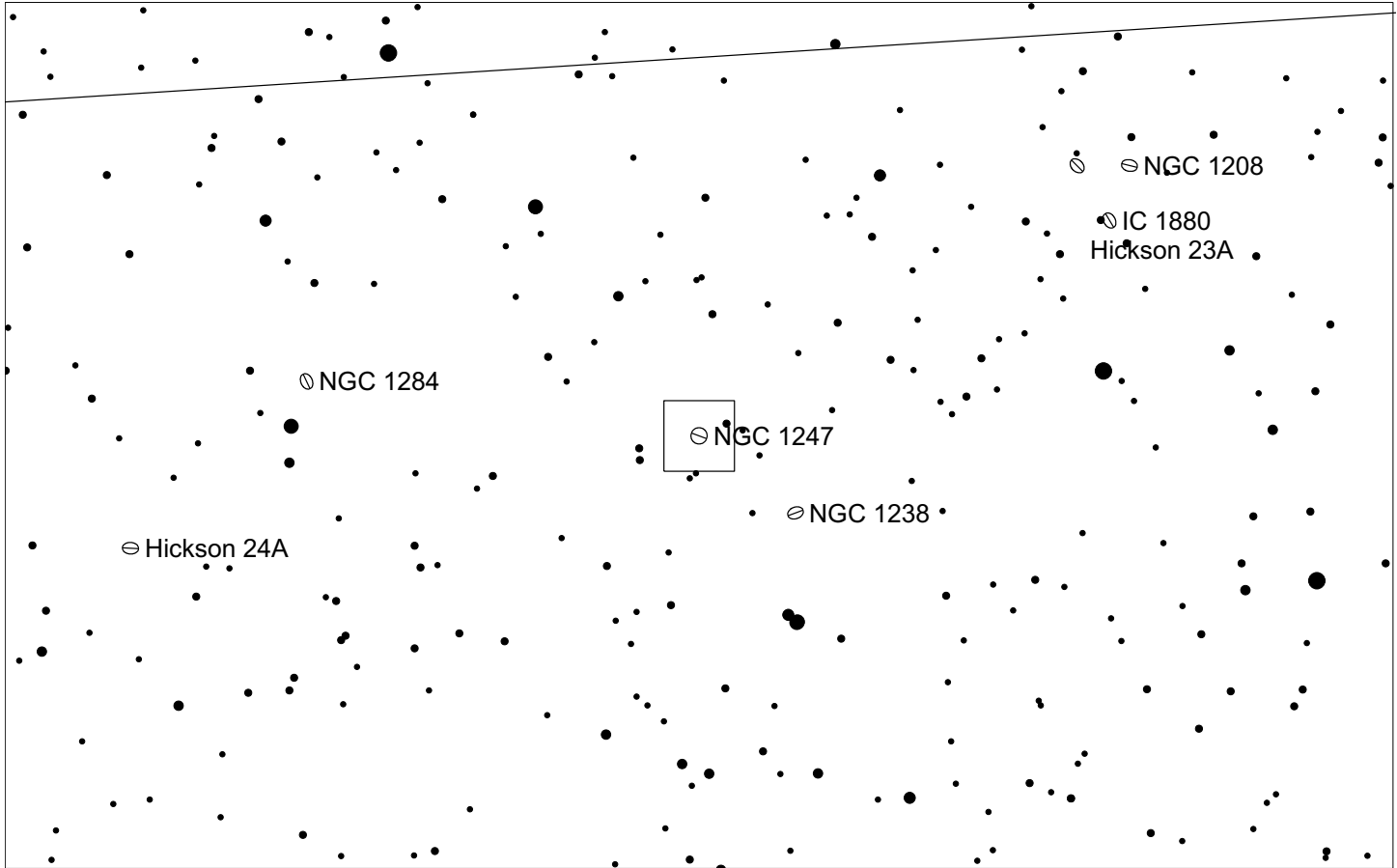
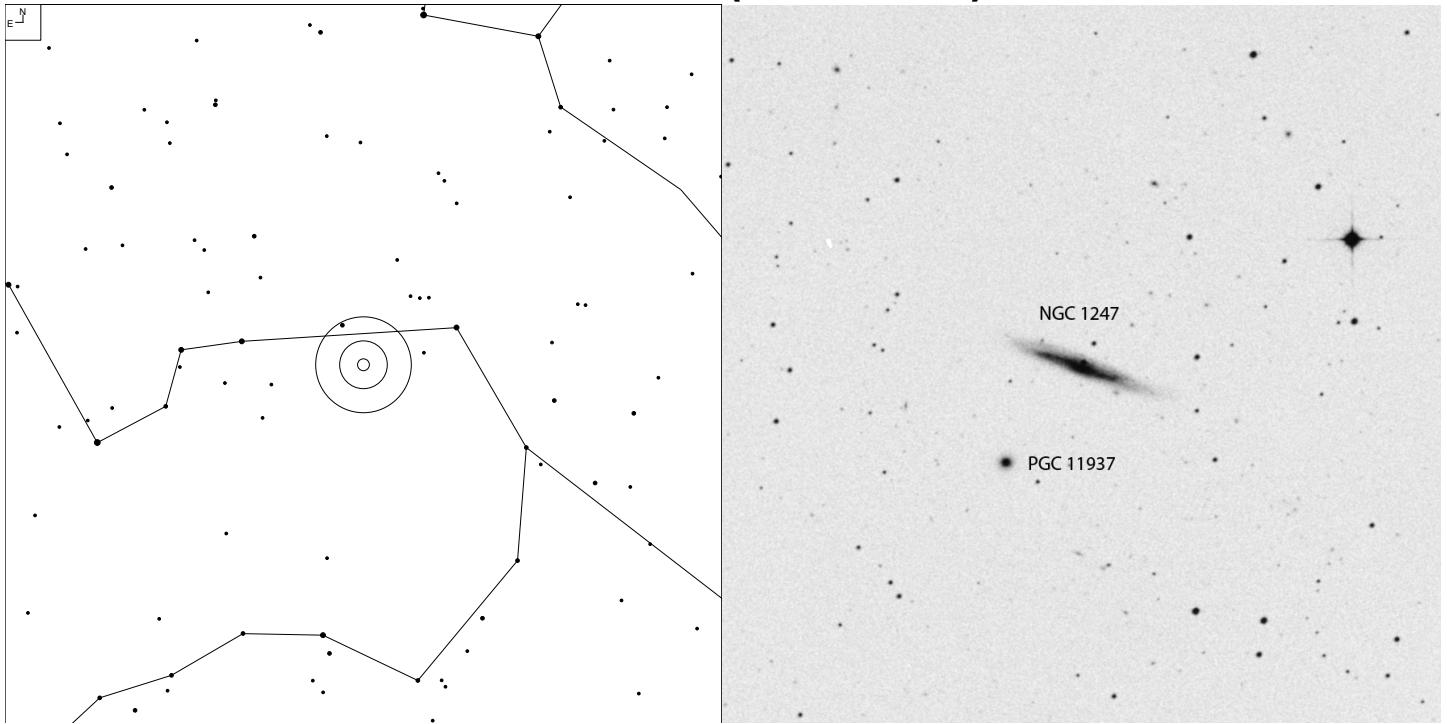
Name	RA	Dec	Mag	Size	Urano
NGC 1145	02h 54m 34.1s	-18°38'07"	13.6b	3.2 x 0.5'	157L

NGC 1163 (Eridanus)



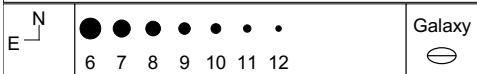
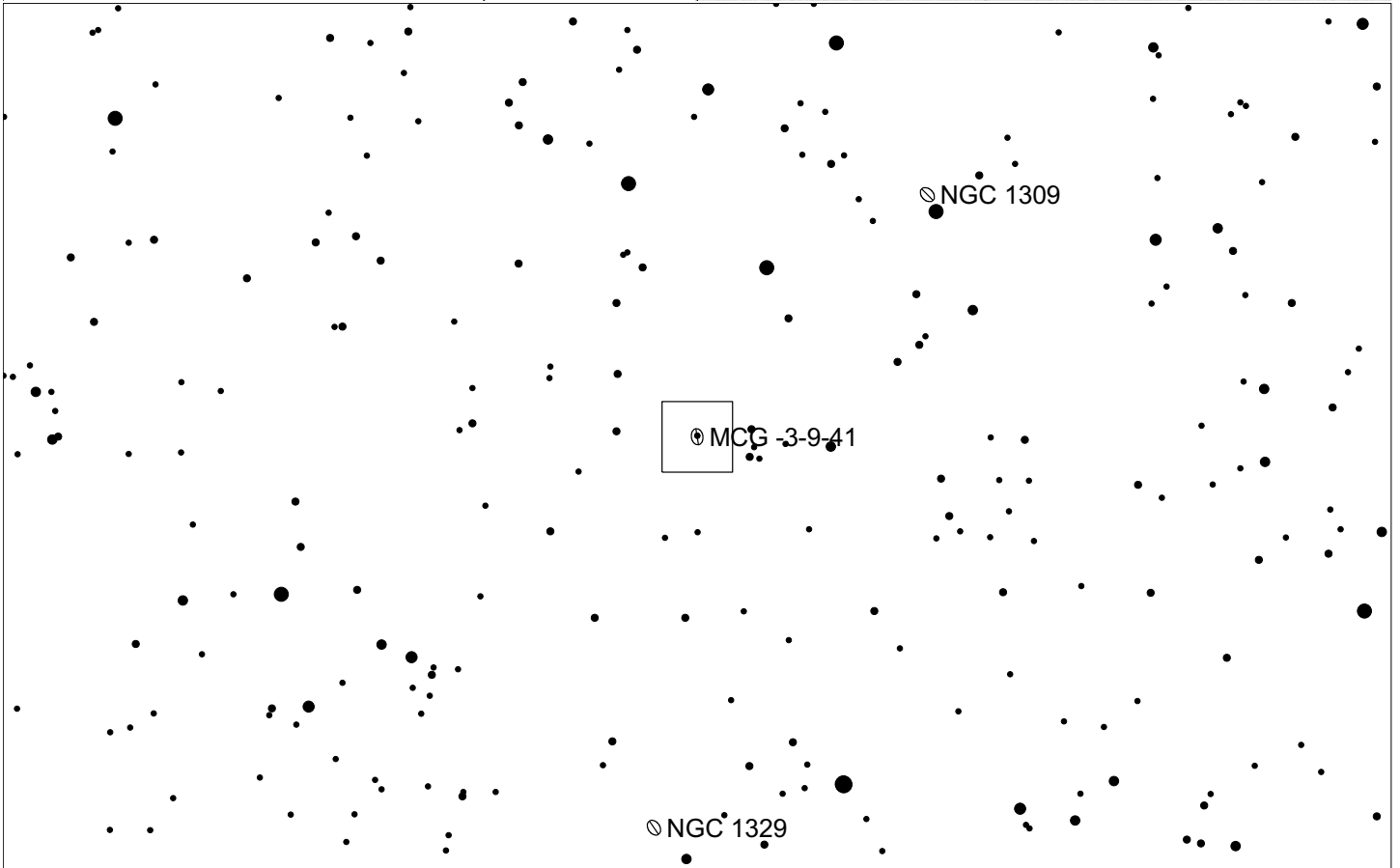
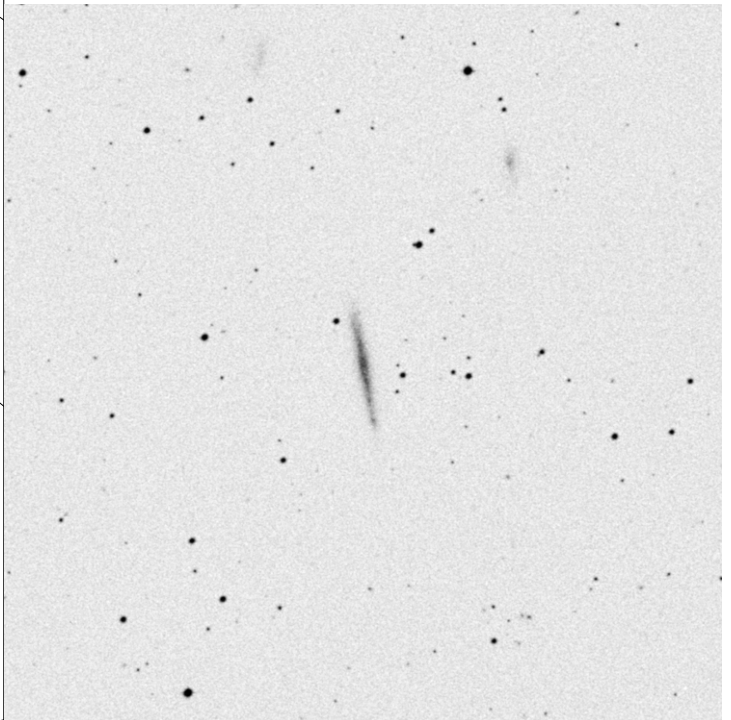
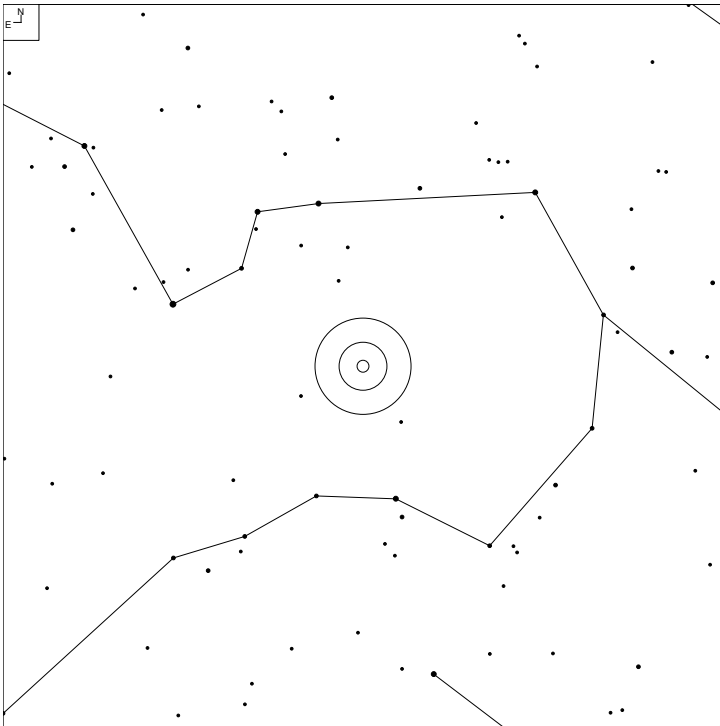
Name	RA	Dec	Mag	Size	Urano
NGC 1163	03h 00m 22.1s	-17°09'11"	14.7b	2.8 x 0.3'	139L

NGC 1247 (Eridanus)



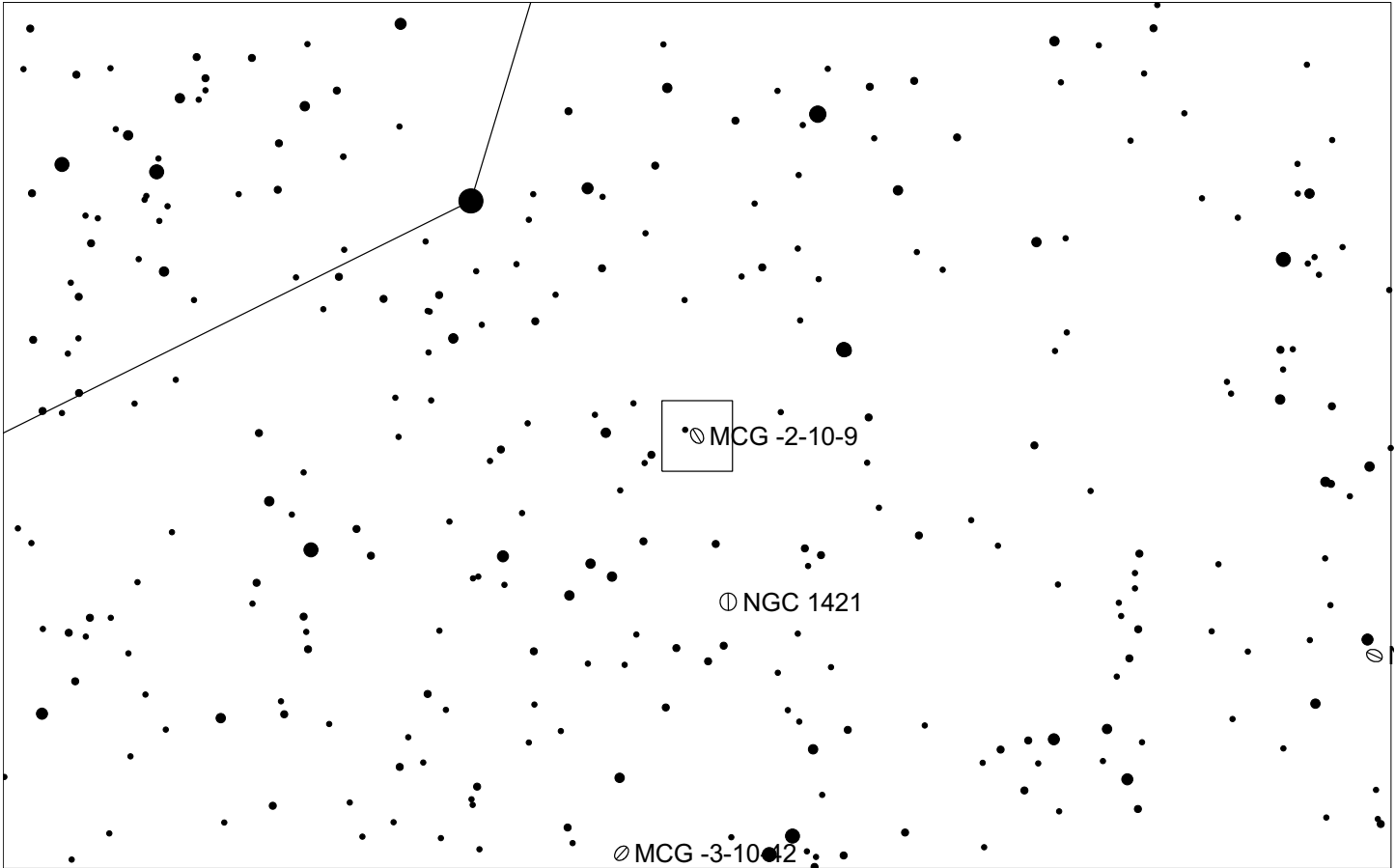
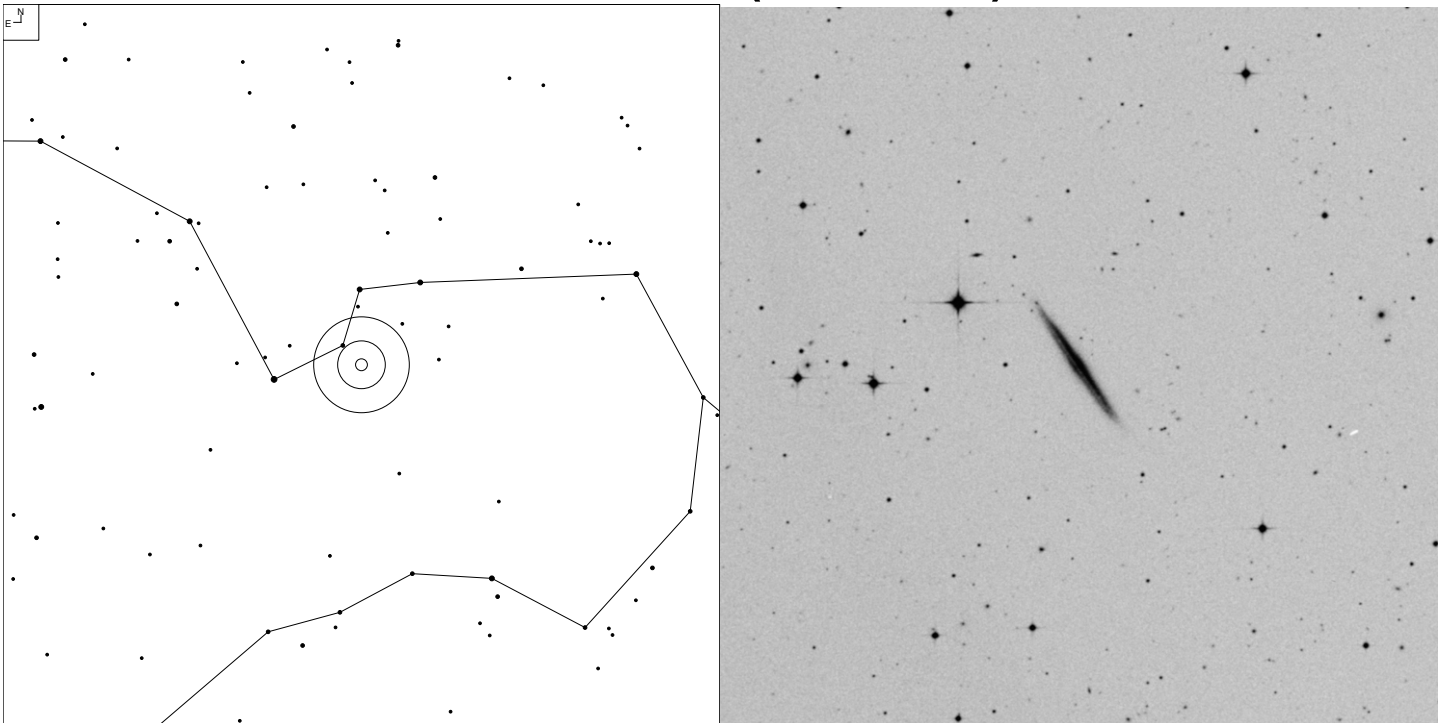
Name	RA	Dec	Mag	Size	Urano
NGC 1247	03h 12m 14.3s	-10°28'50"	13.5b	3.3 x 0.5'	139L

MCG-3-9-41 (Eridanus)



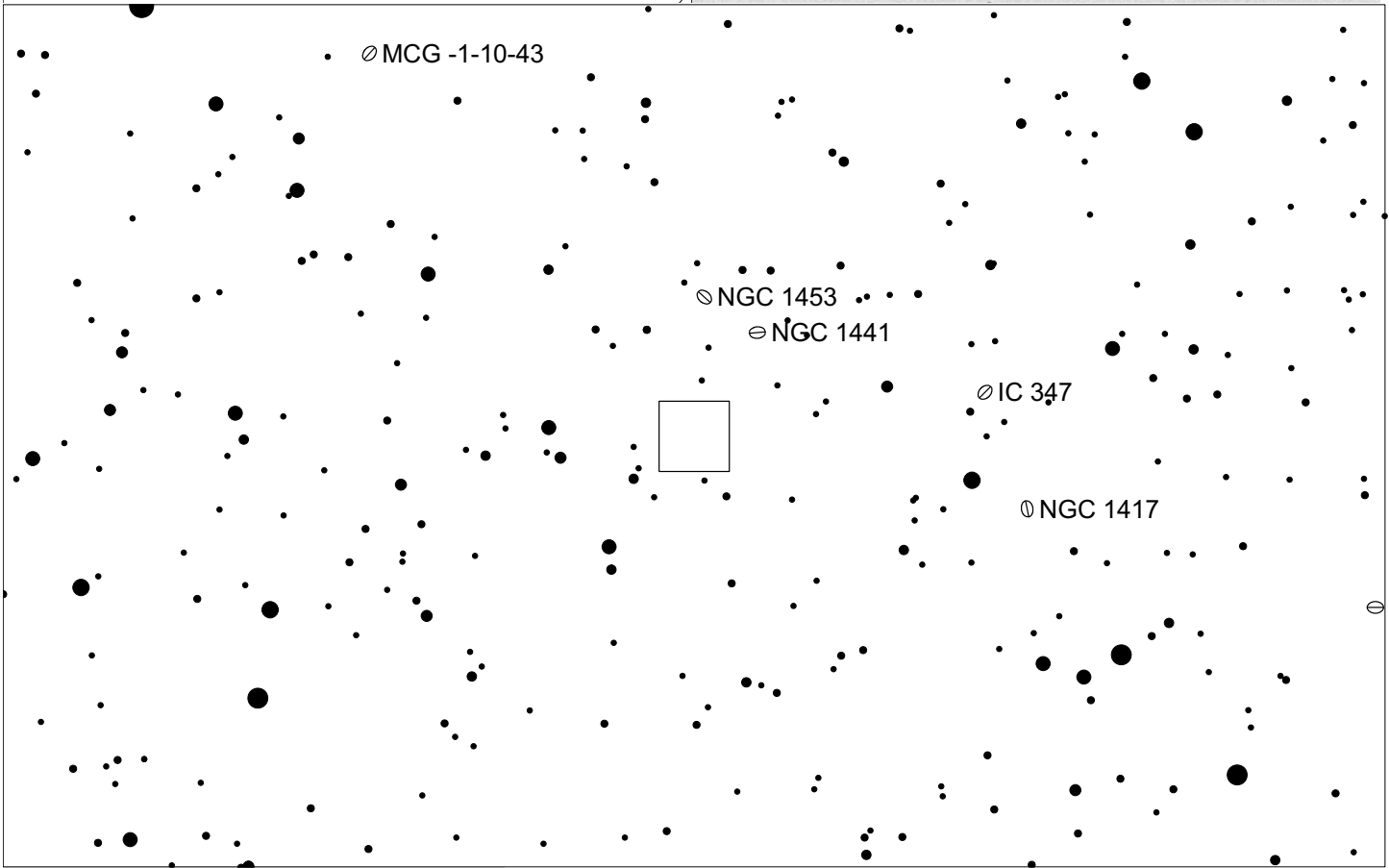
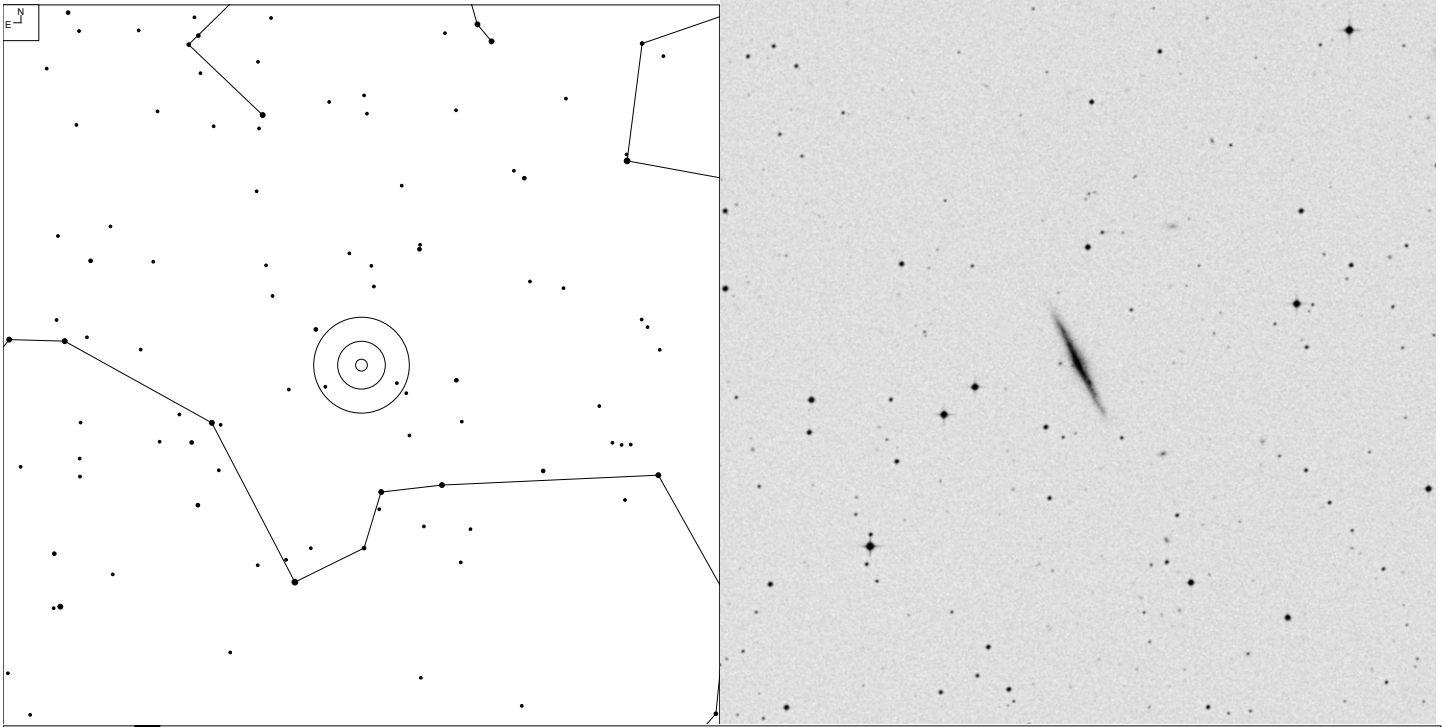
Name	RA	Dec	Mag	Size	Urano
MCG-3-9-41	03h 25m 25.0s	-16°14'06"	13.7	2.6 X 0.3'	138R

MCG-2-10-9 (Eridanus)



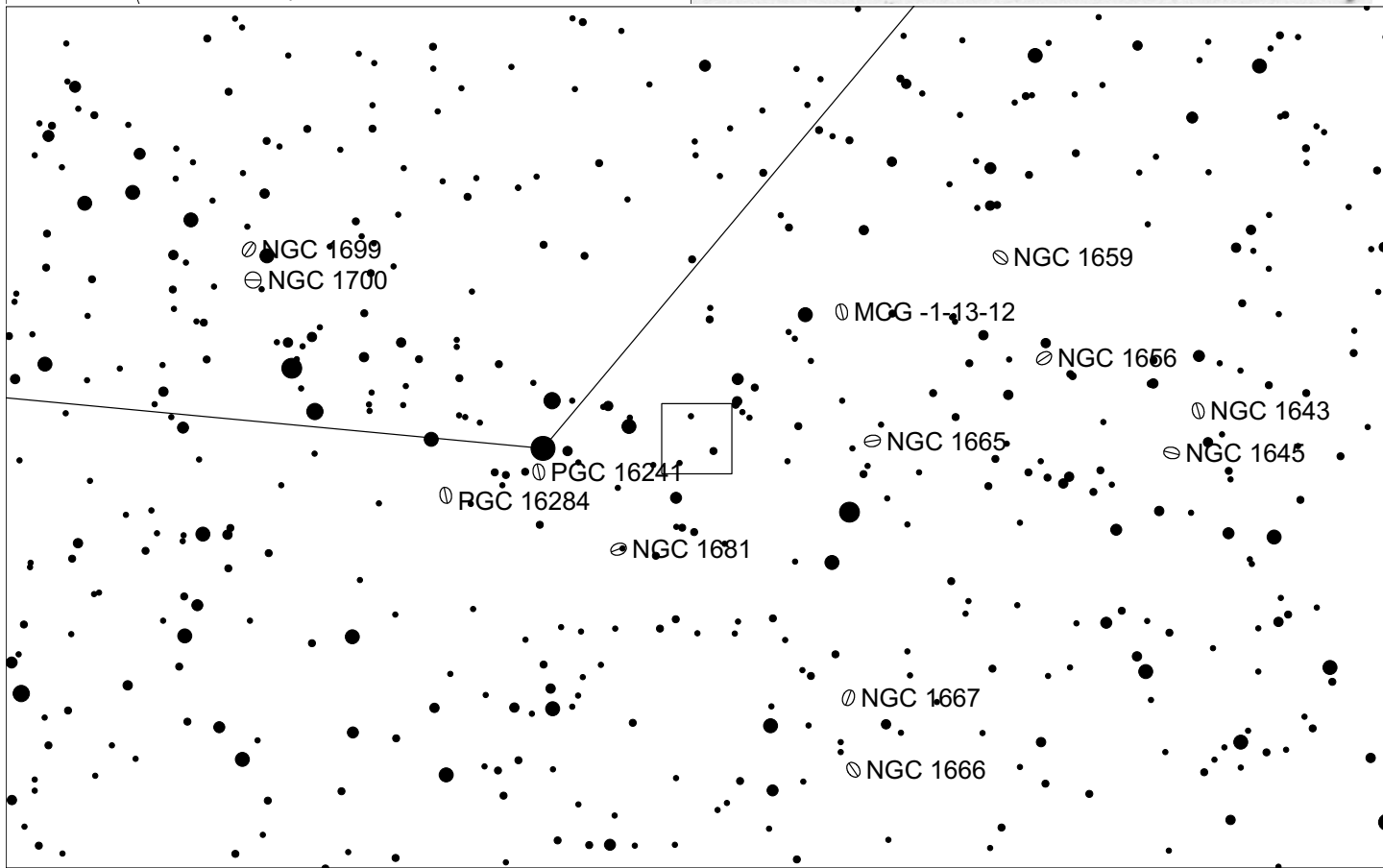
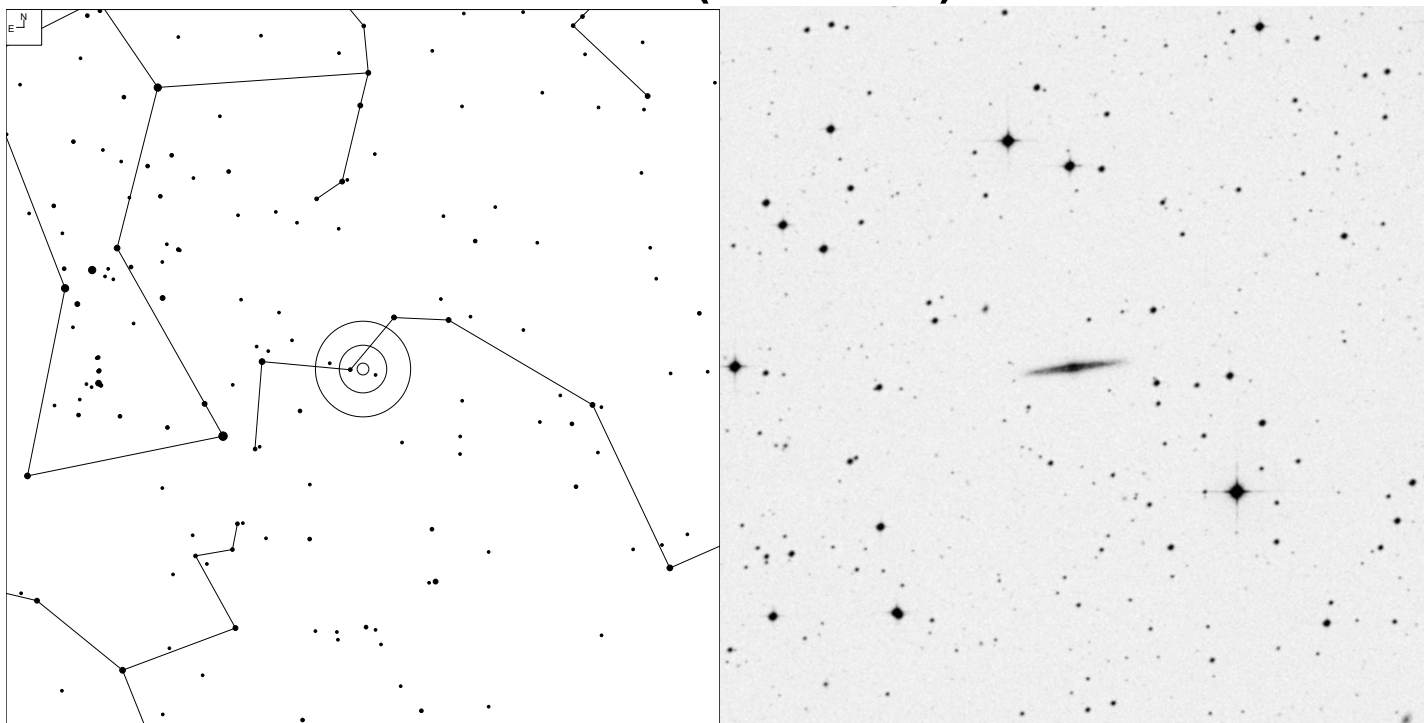
Name	RA	Dec	Mag	Size	Urano
MCG-2-10-9	03h 42m 55.9s	-12°54'58"	13.5	3.1 x 0.4'	138R

MCG-1-10-35 (Eridanus)



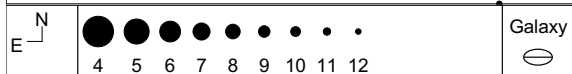
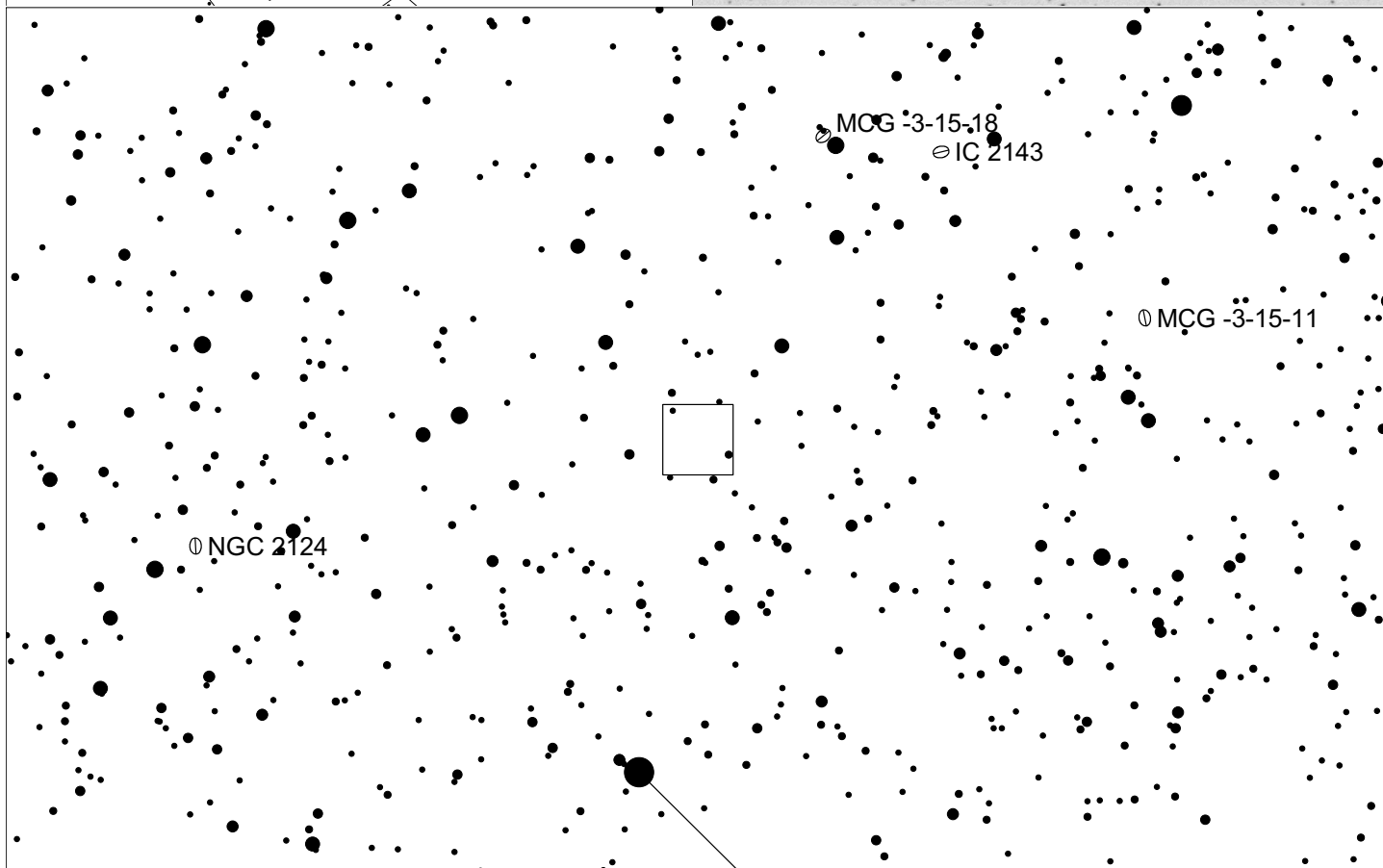
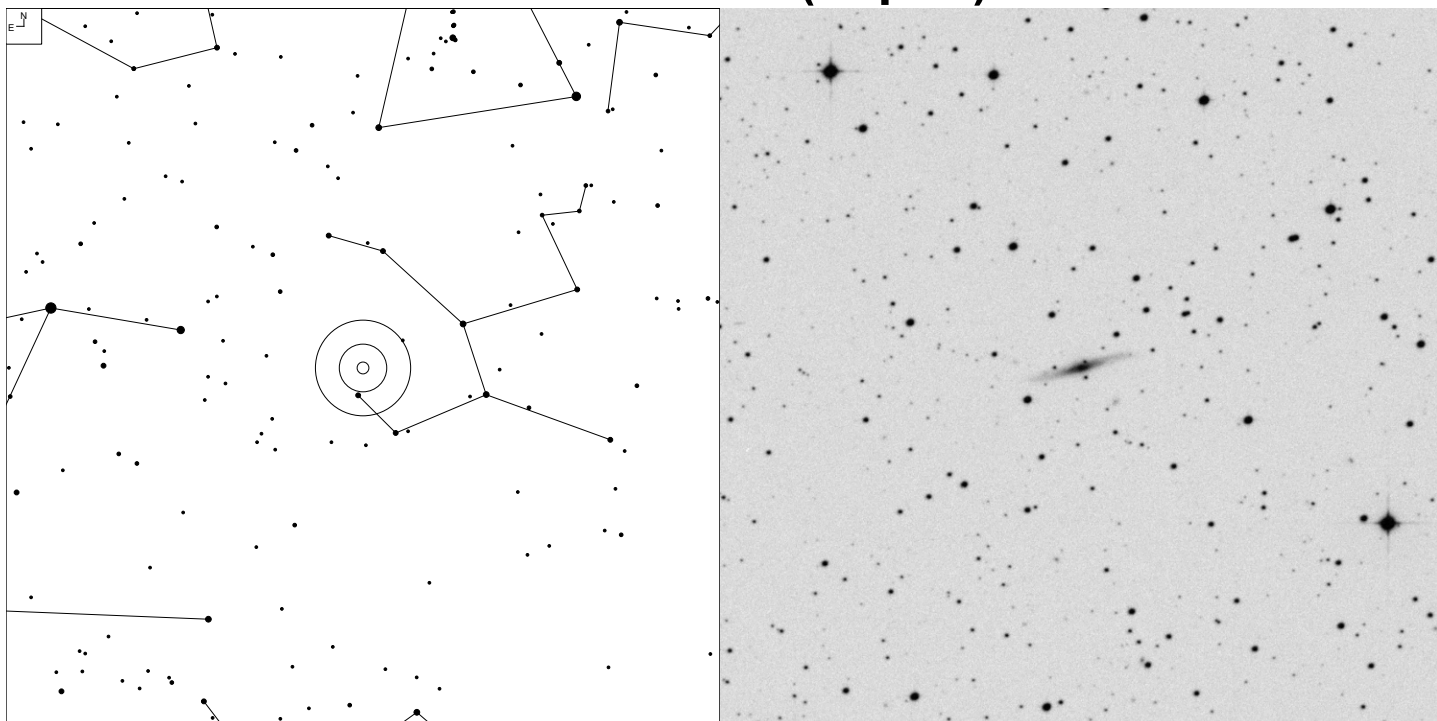
Name	RA	Dec	Mag	Size	Urano
MCG-1-10-35	03h 46m 35.8s	-04°27'14"	15.0	2.5 x 0.3'	118L

IC 2098 (Eridanus)



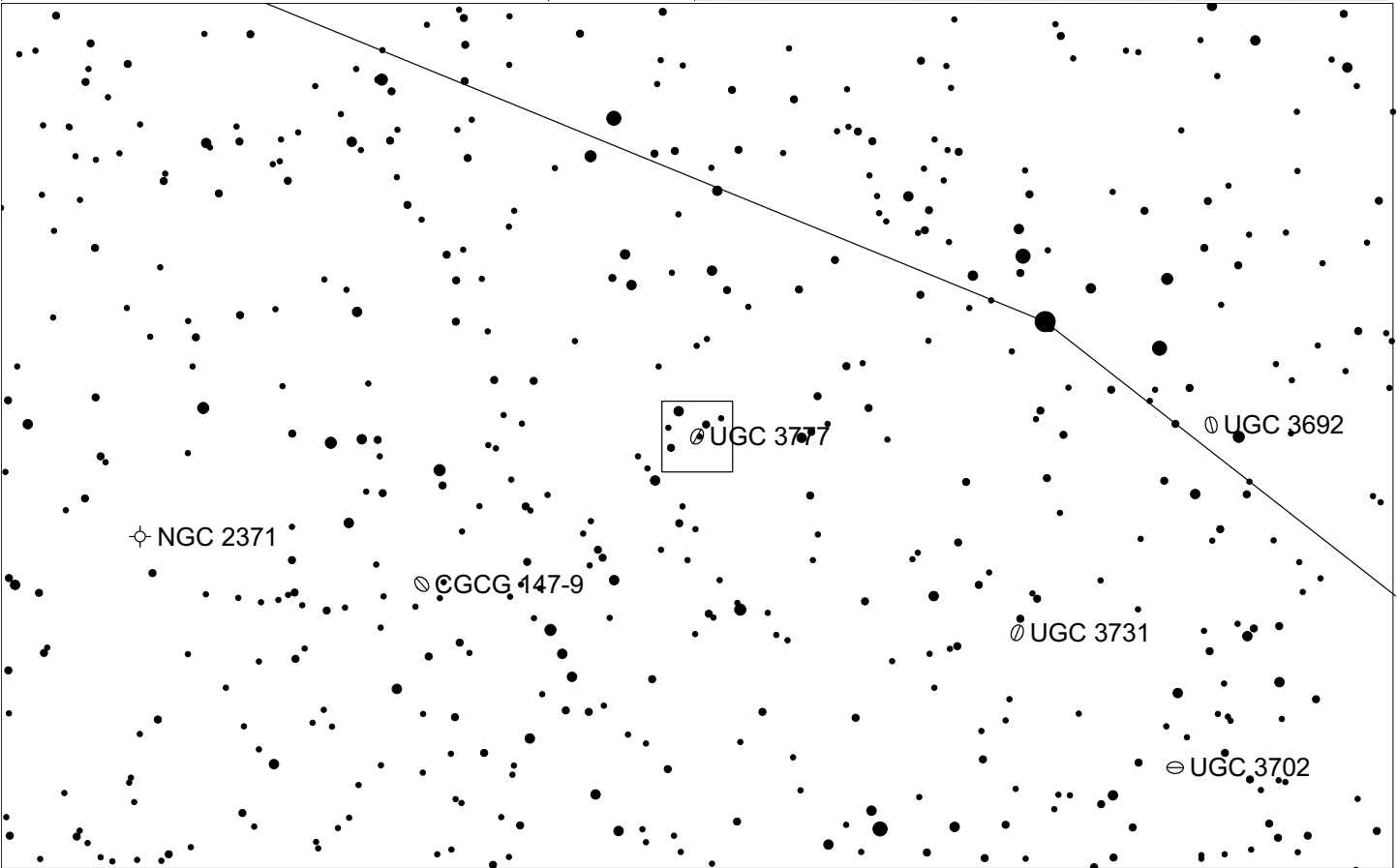
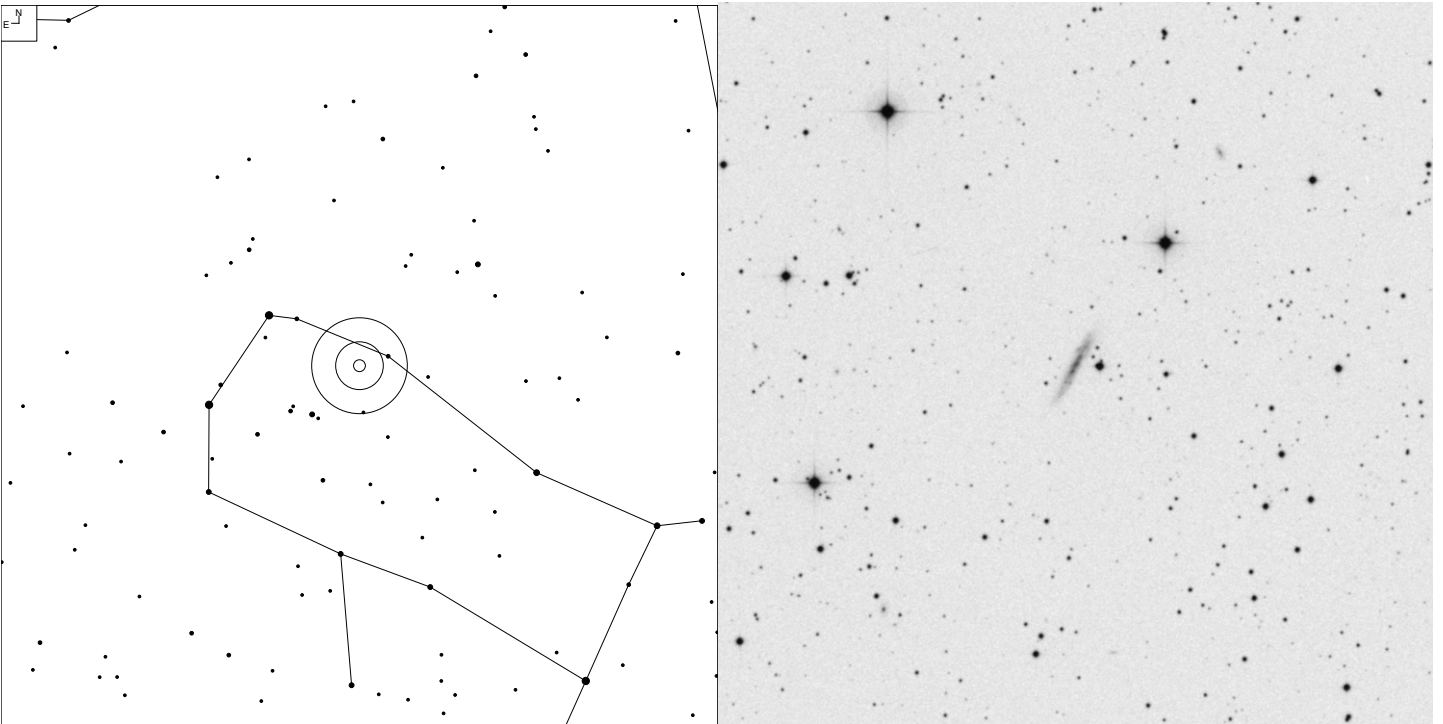
Name	RA	Dec	Mag	Size	Urano
IC 2098	04h 50m 44.2s	-05°25'07"	14.5	2.5 x 0.2'	117L

MCG-3-15-20 (Lepus)



Name	RA	Dec	Mag	Size	Urano
MCG-3-15-20	05h 50m 27.4s	-19°43'35"	14.4p	2.1 x 0.3'	155L

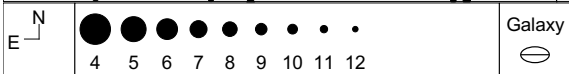
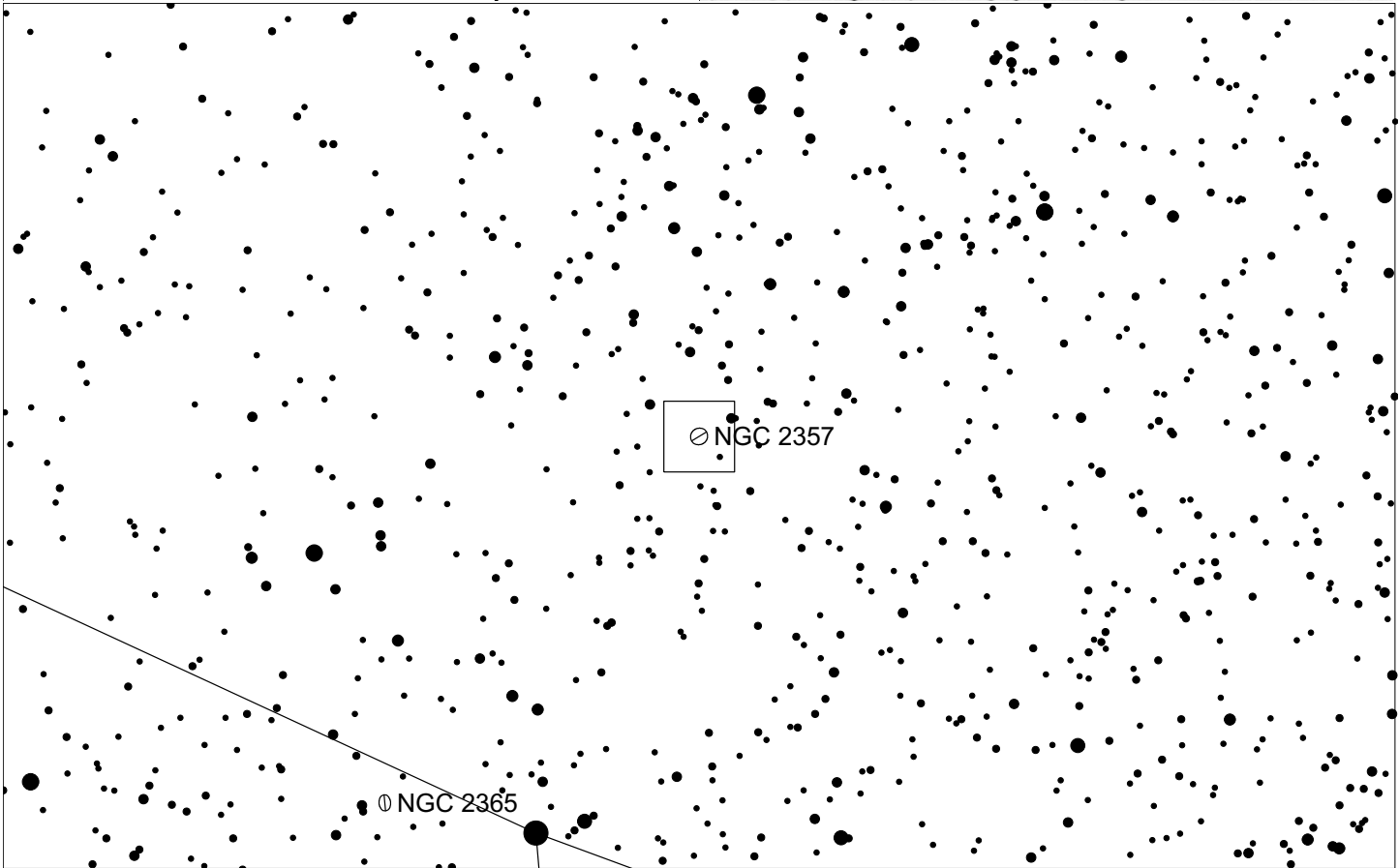
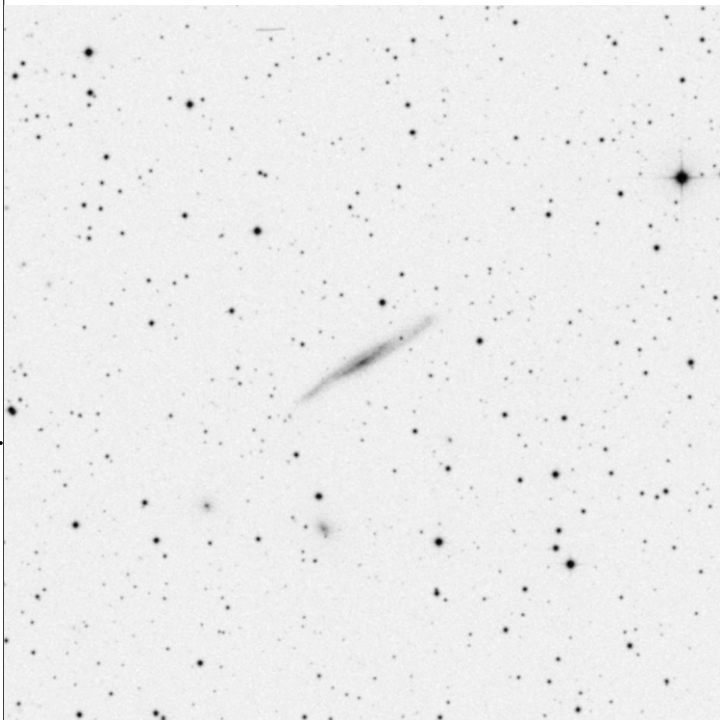
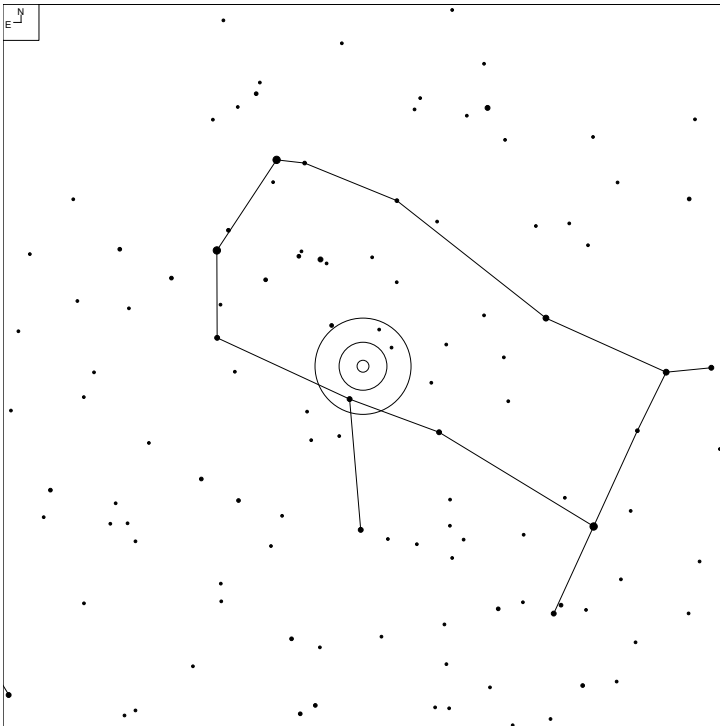
UGC 3777 (Gemini)



Galaxy
 Planetary

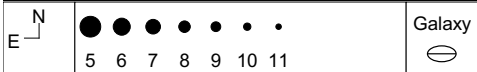
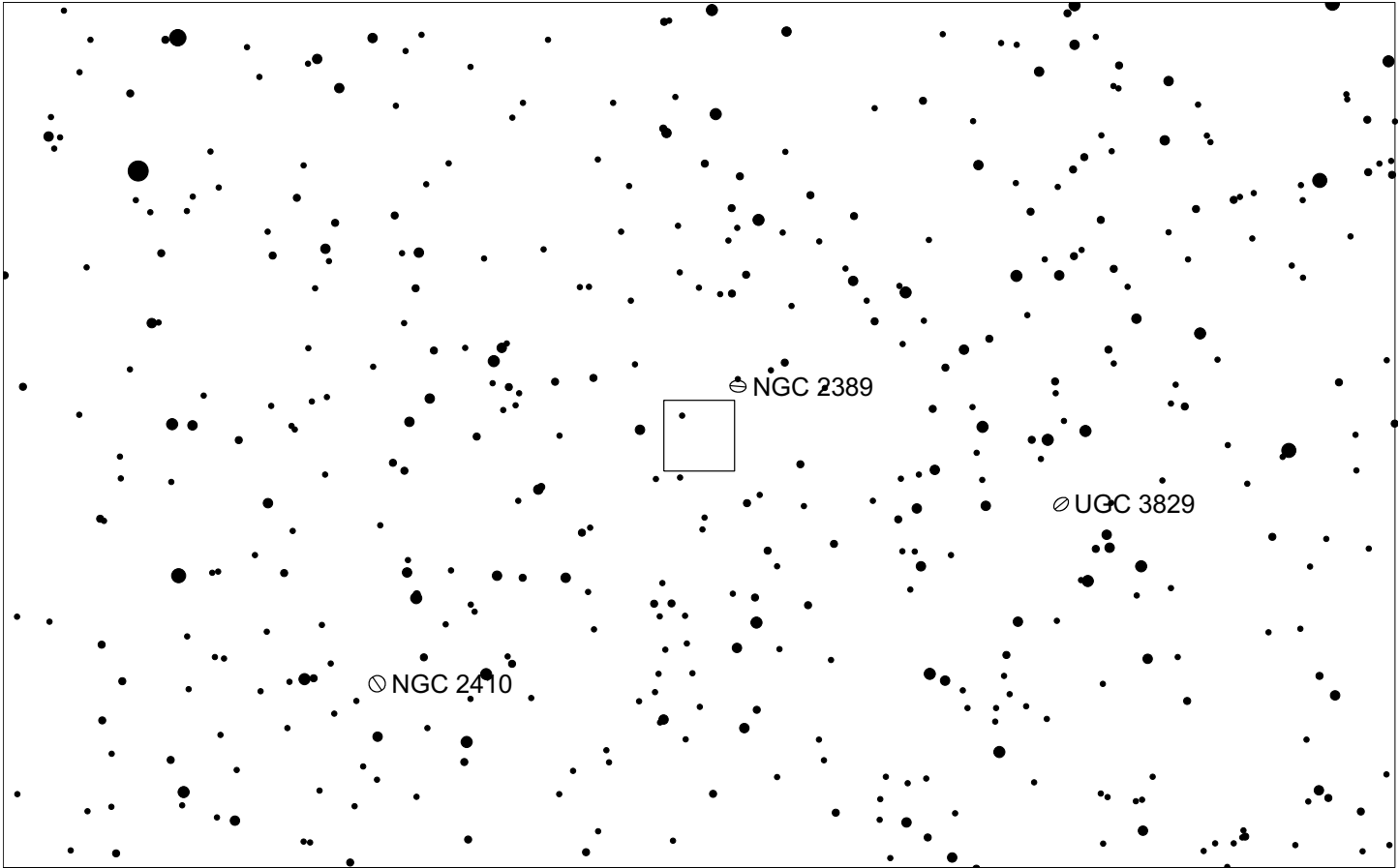
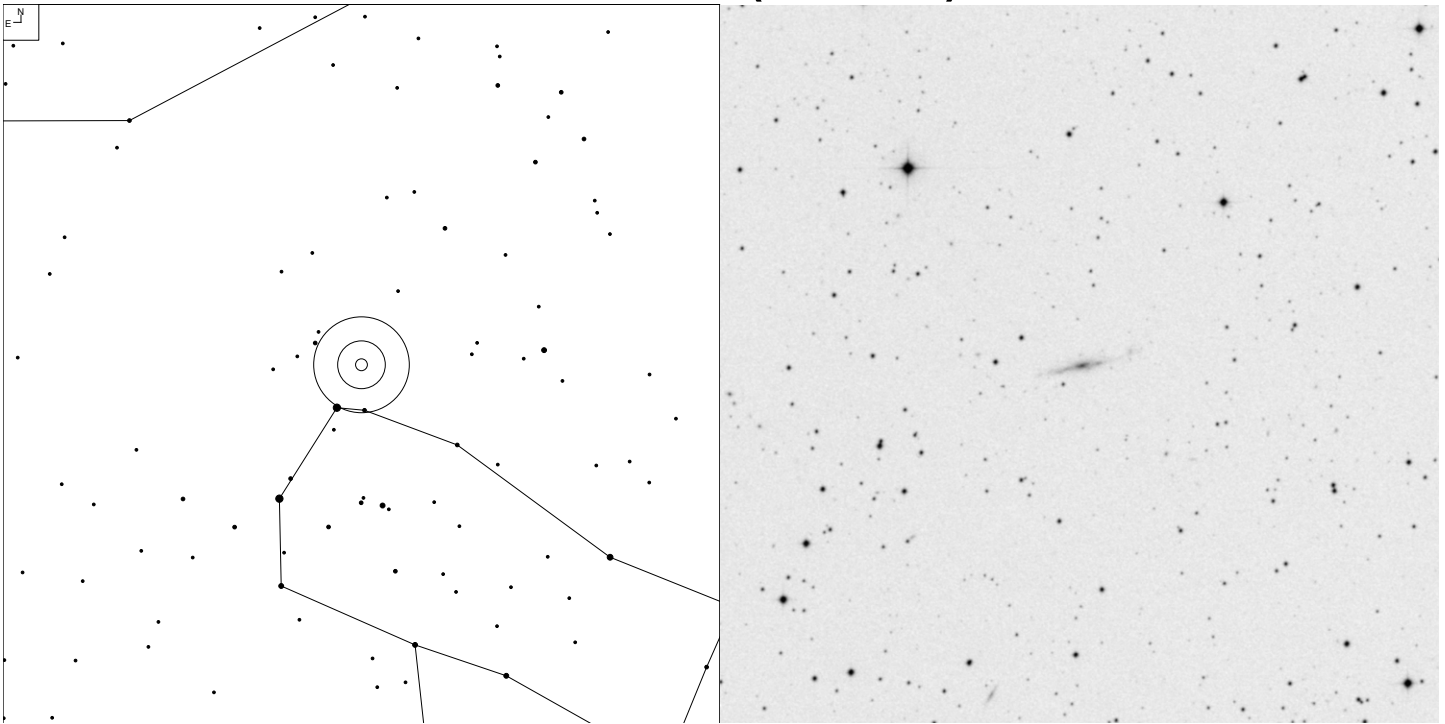
Name	RA	Dec	Mag	Size	Urano
UGC 3777	07h 16m 43.0s	+29°51'19"	14.6p	1.7 x 0.3'	58L

NGC 2357 (Gemini)



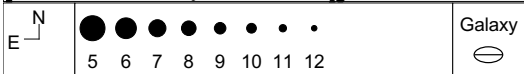
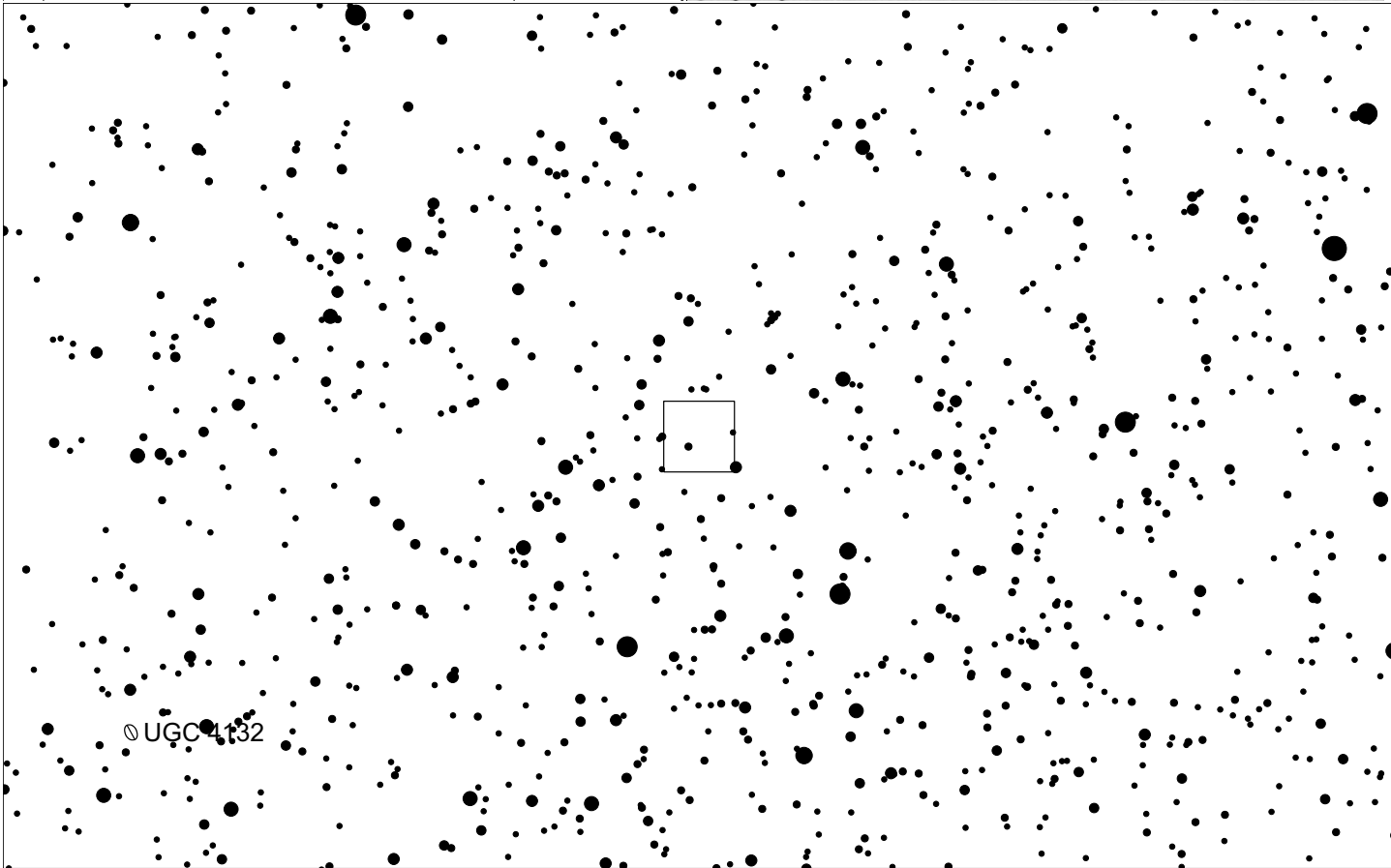
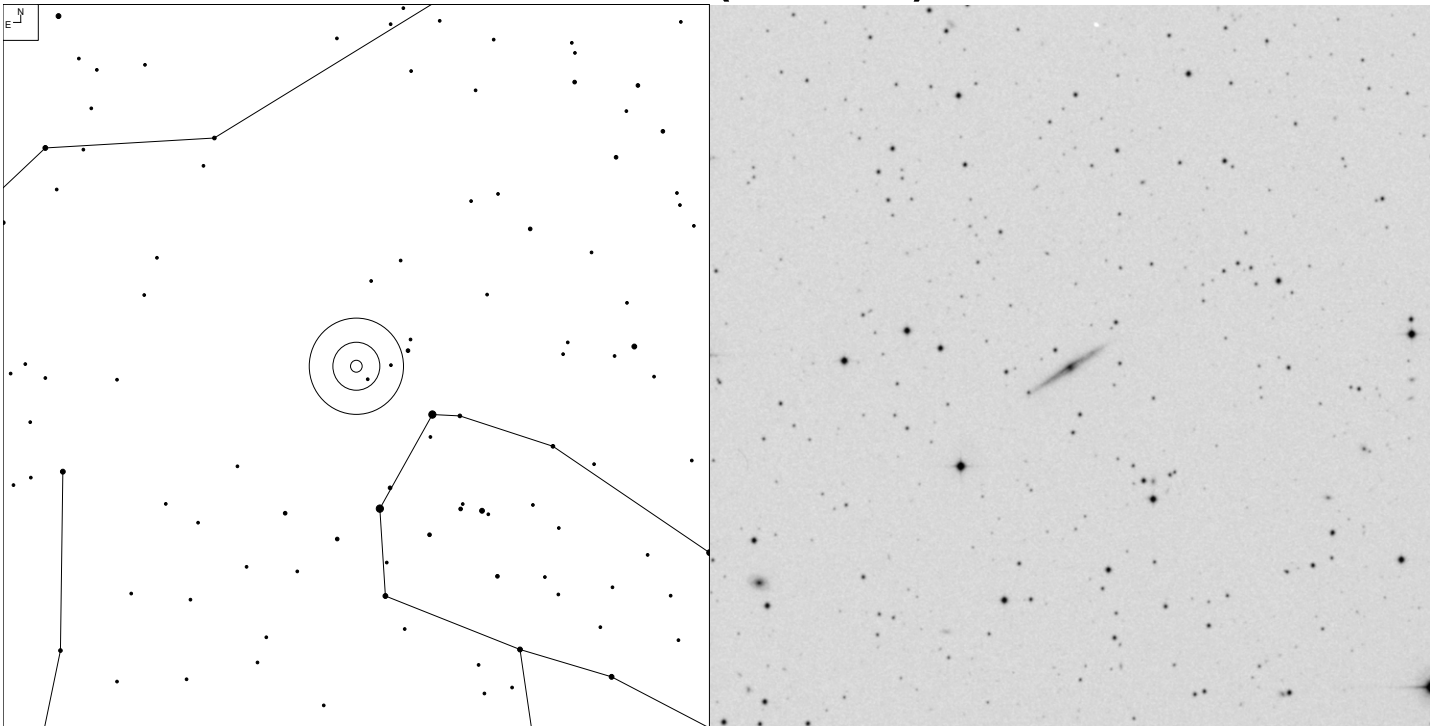
Name	RA	Dec	Mag	Size	Urano
NGC 2357	07h 17m 41.0s	+23°21'22"	14.0p	1.7 x 0.3'	76L

UGC 3879 (Gemini)



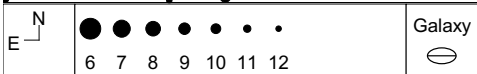
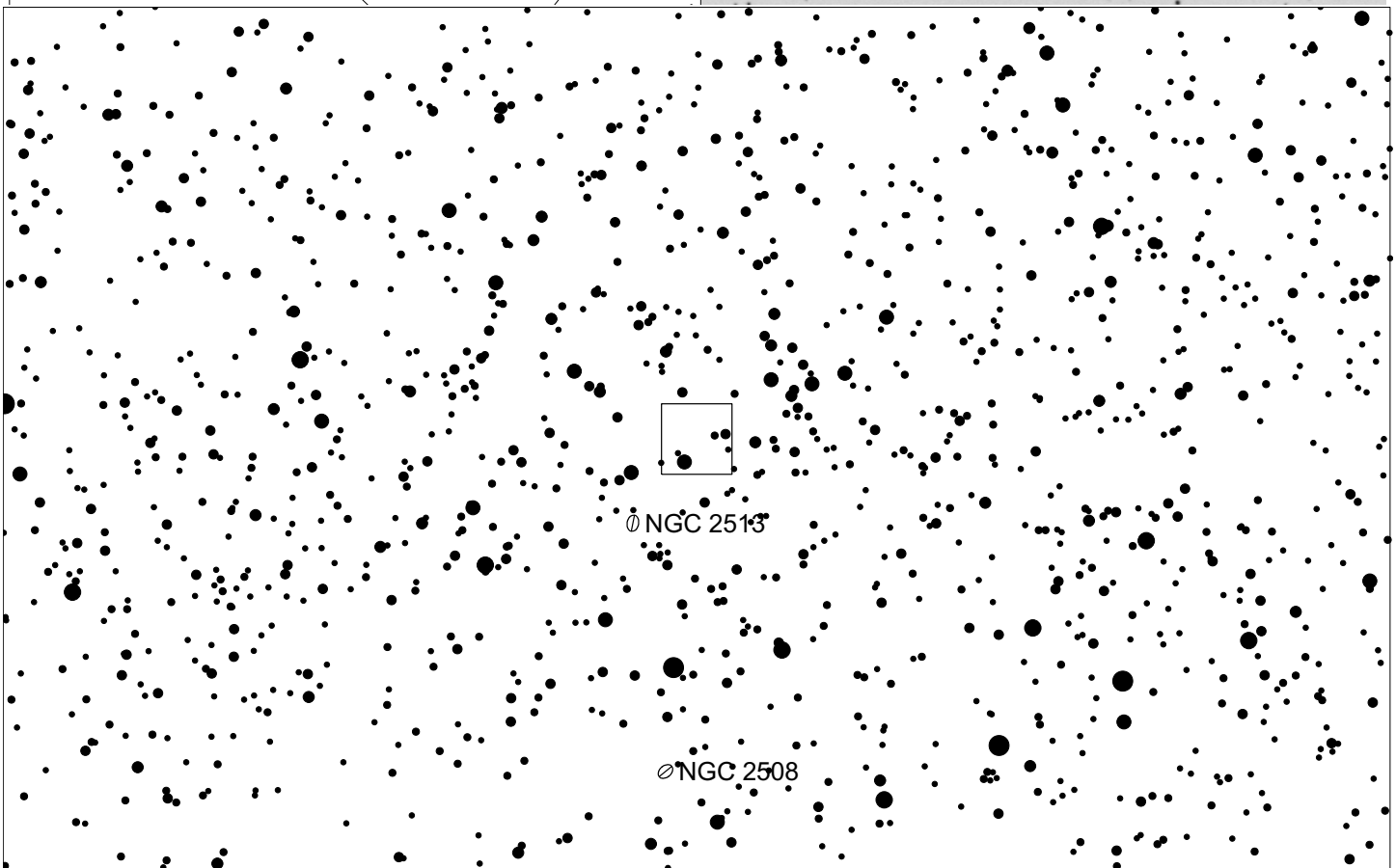
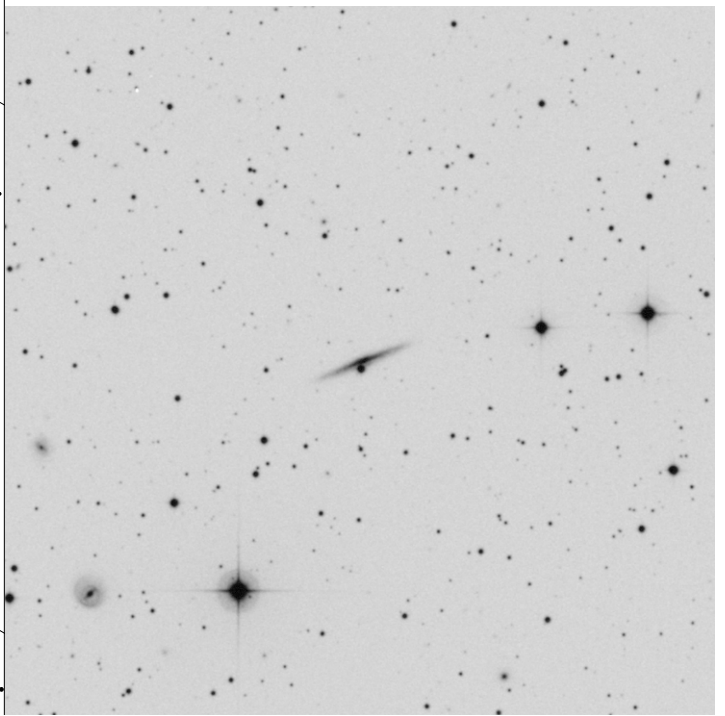
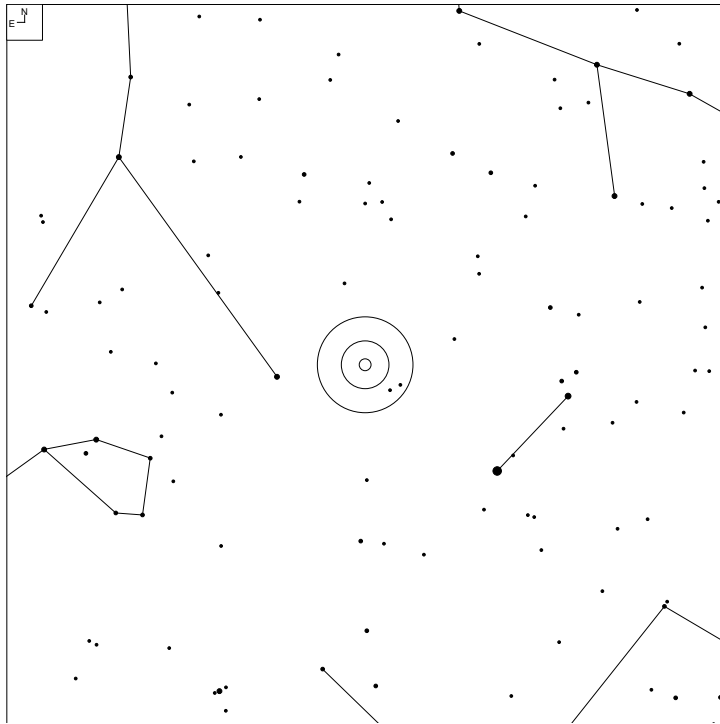
Name	RA	Dec	Mag	Size	Urano
UGC 3879	07h 29m 43.9s	+33°41'24"	15.0p	2.3 x 0.3'	57R

IC 2207 (Gemini)



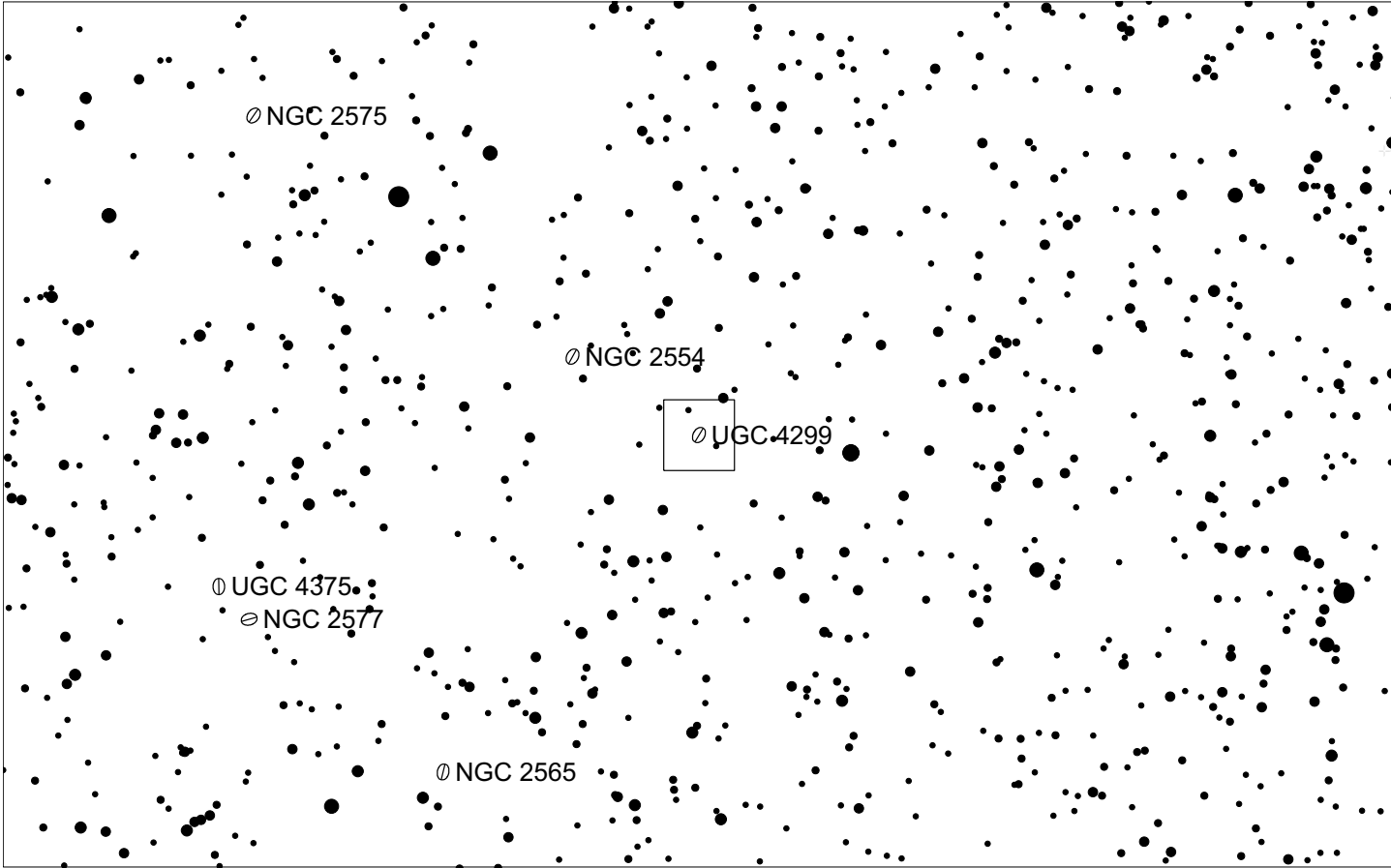
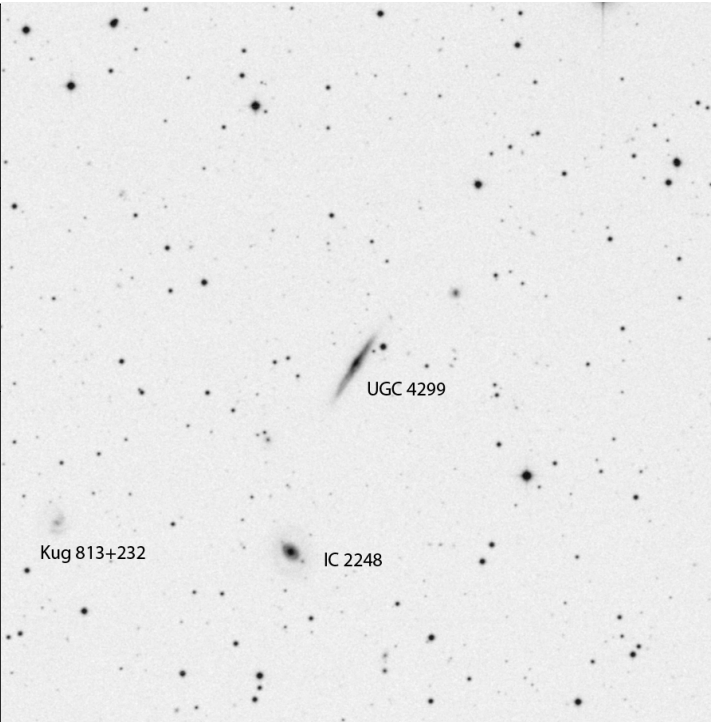
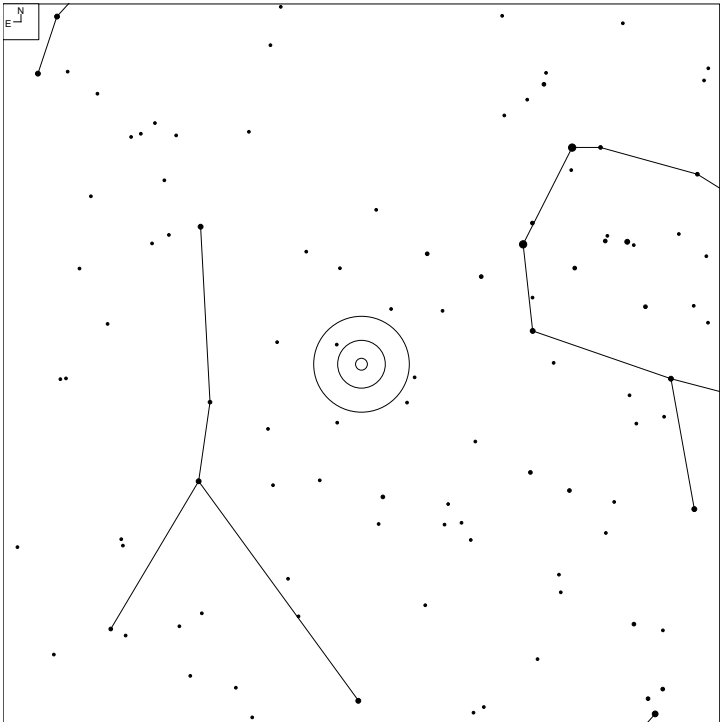
Name	RA	Dec	Mag	Size	Urano
IC 2207	07h 49m 50.9s	+33°57'43"	15.2p	2.0 x 0.2'	57R

UGC 4171 (Cancer)



Name	RA	Dec	Mag	Size	Urano
UGC 4171	08h 01m 30.8s	+09°42'25"	14.4p	2.3 x 0.3'	94R

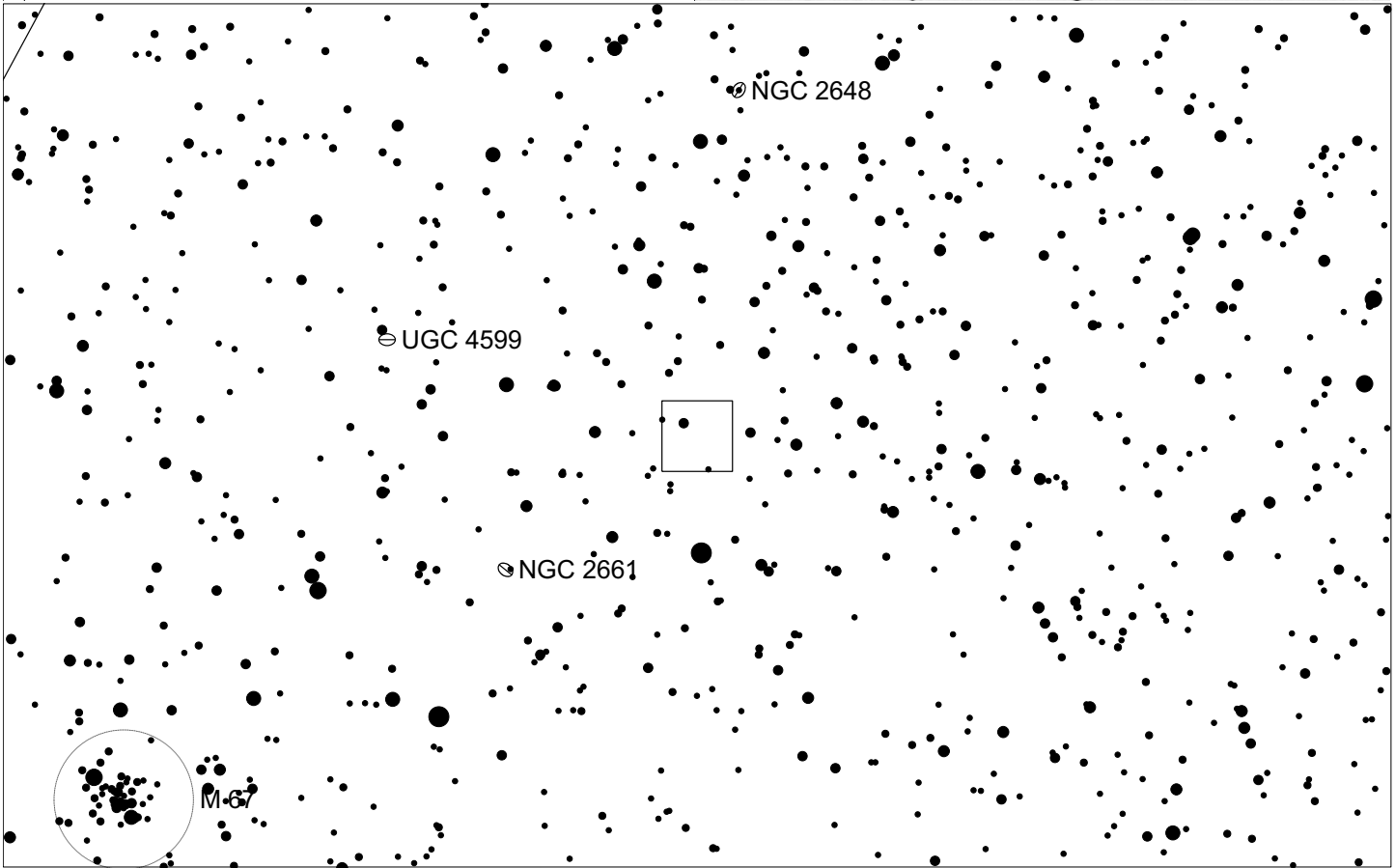
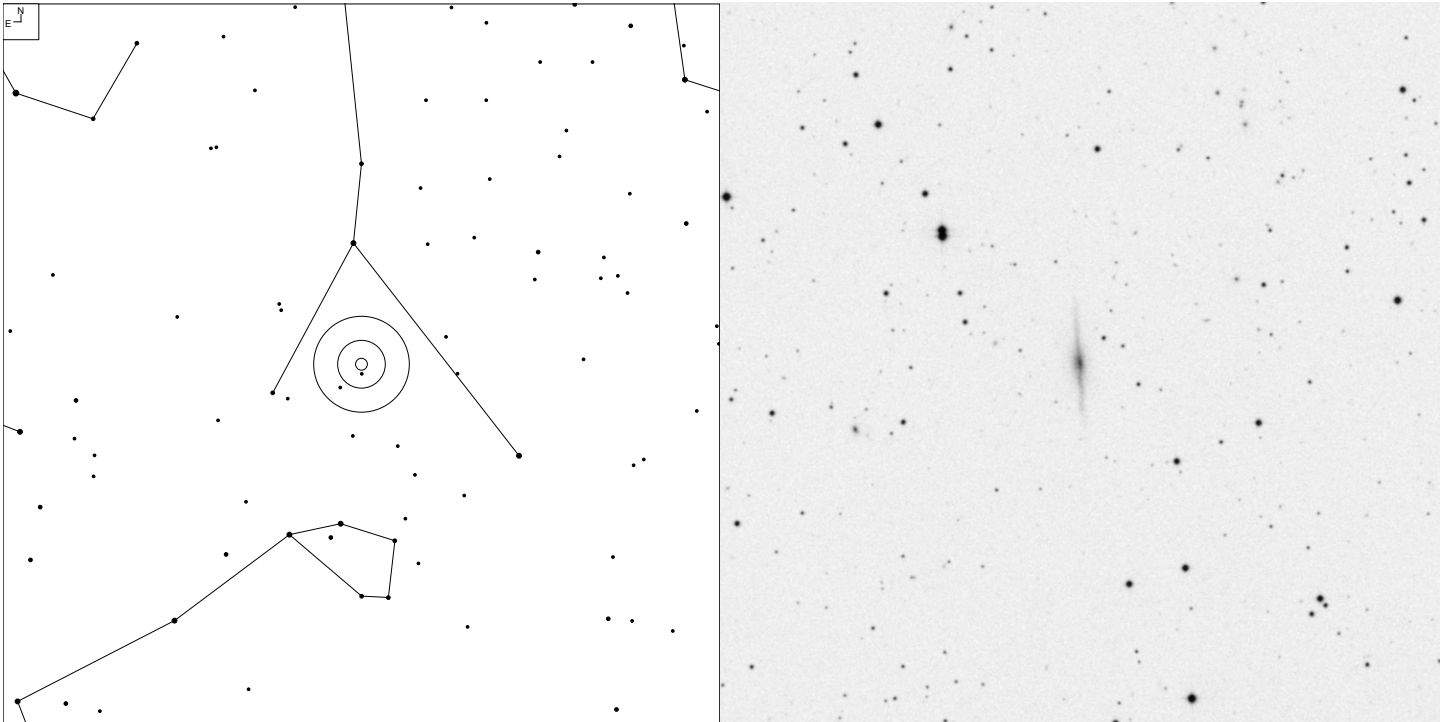
UGC 4299 (Cancer)



		Galaxy Radio
	6 7 8 9 10 11 12	

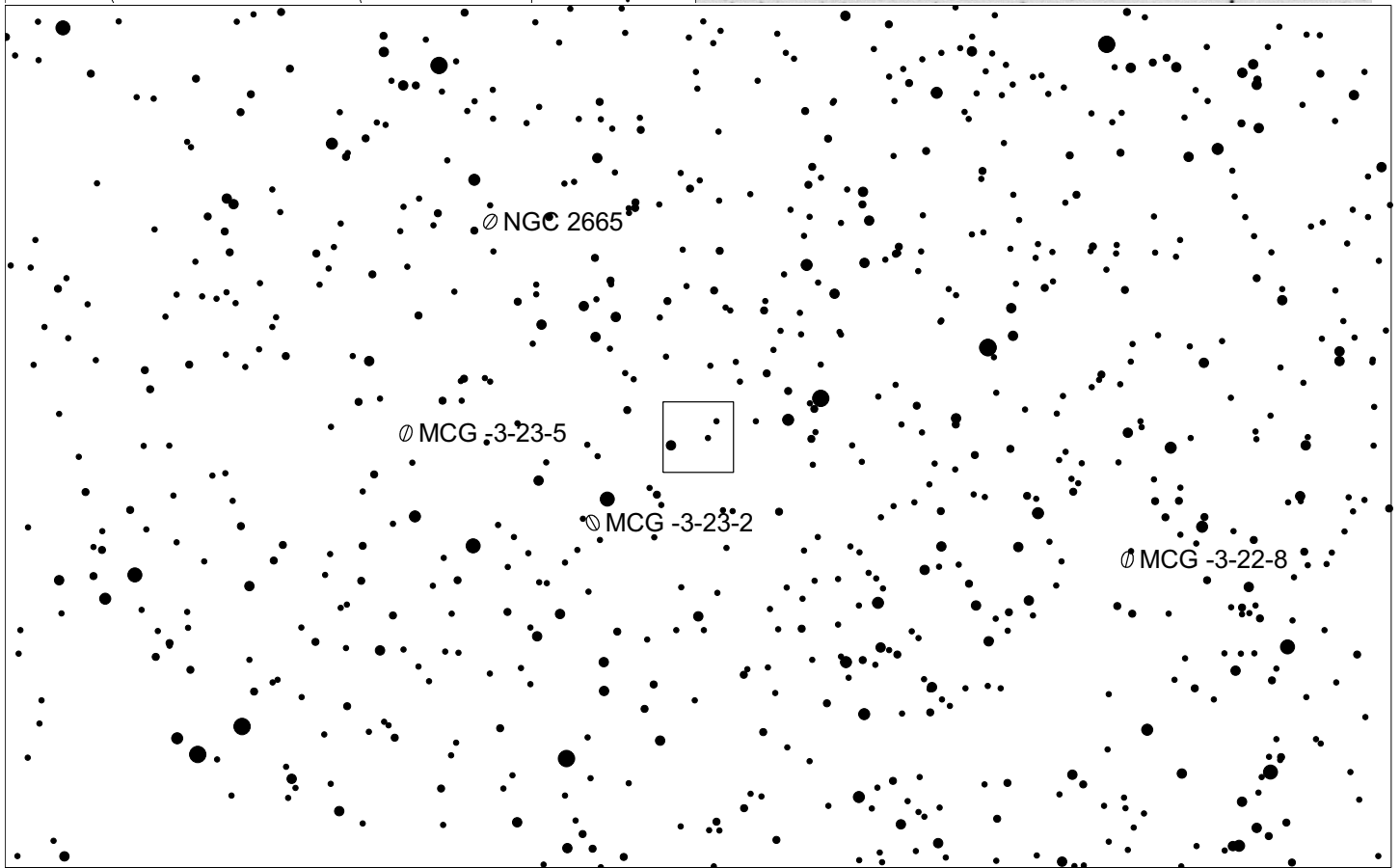
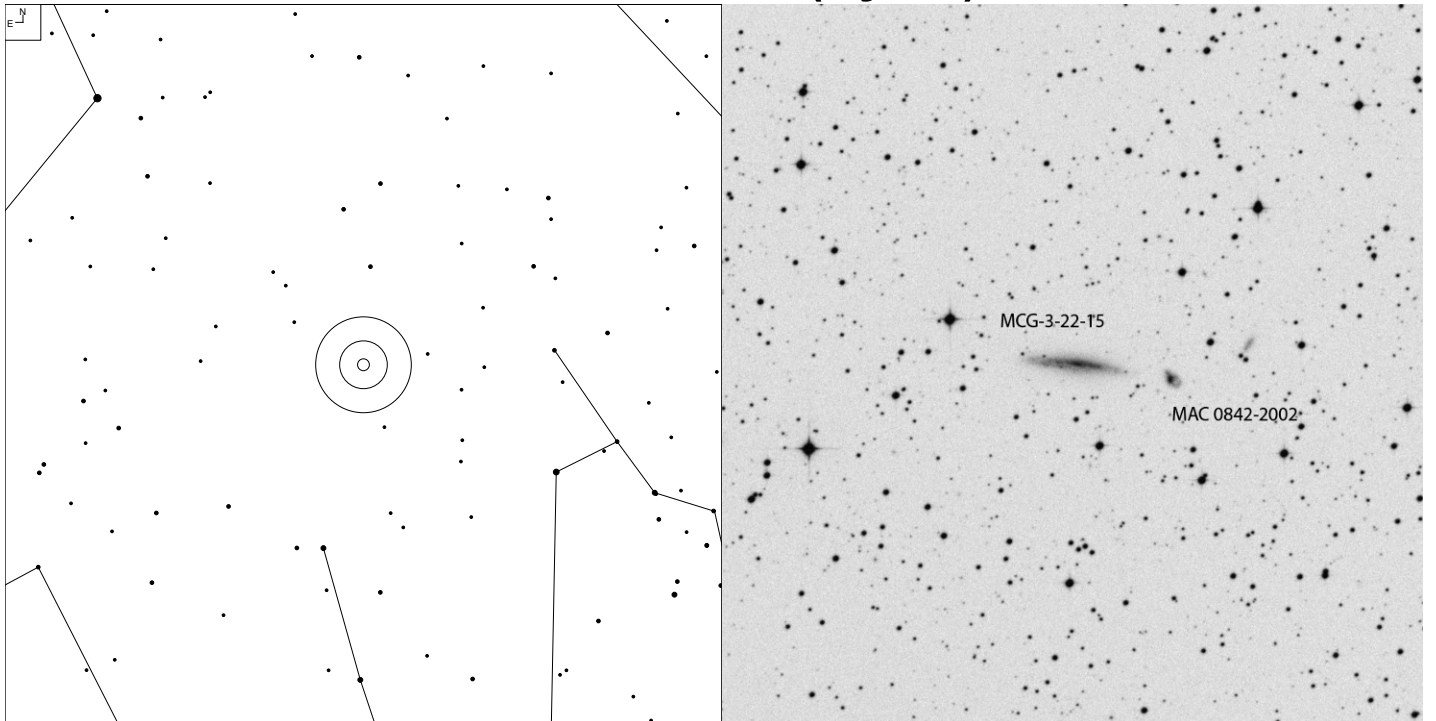
Name	RA	Dec	Mag	Size	Urano
UGC 4299	08h 15m 59.0s	+23°11'58"	14.0b	1.8 x 0.2'	75L

UGC 4550 (Cancer)



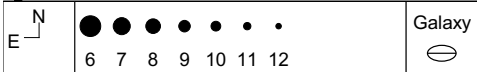
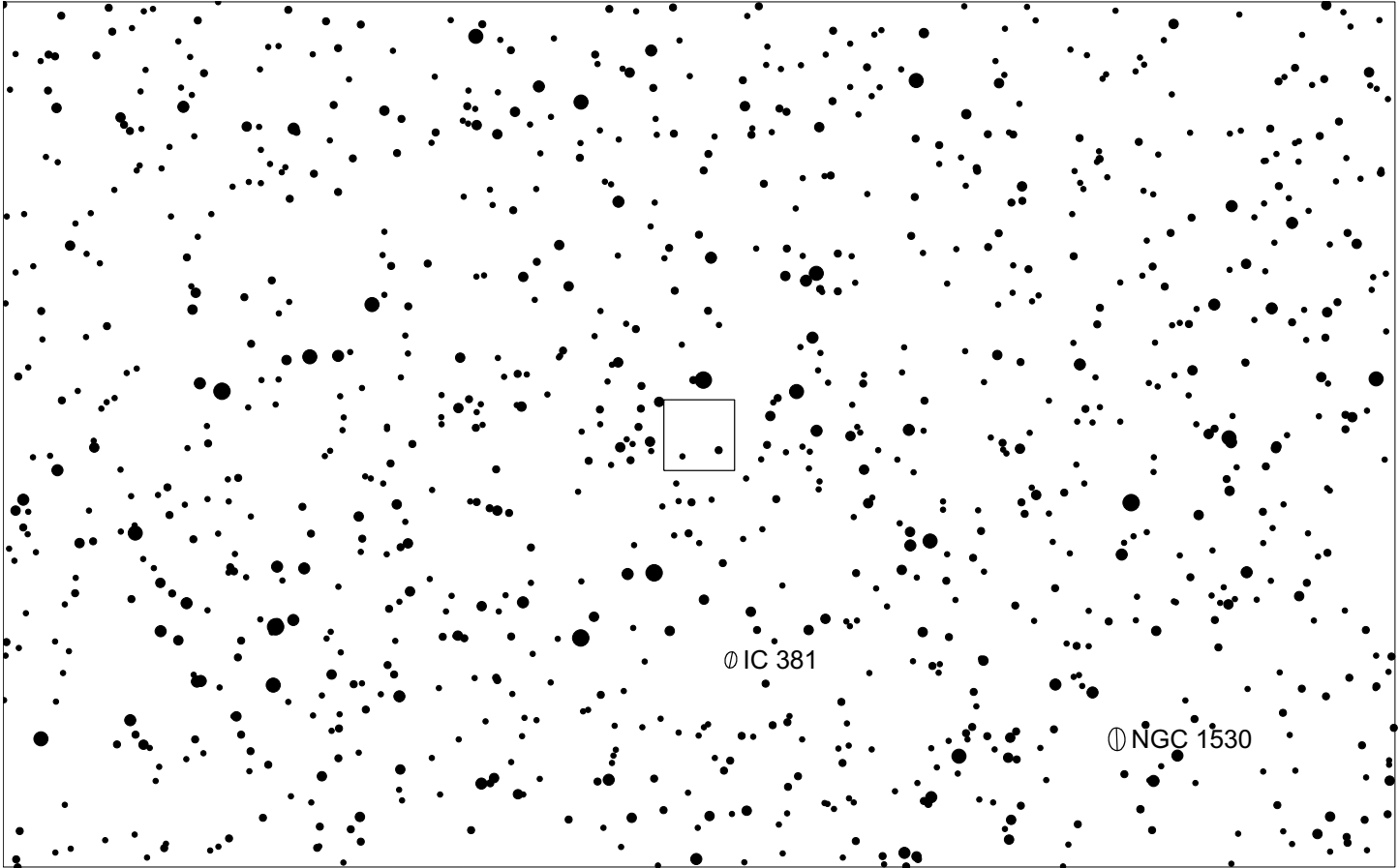
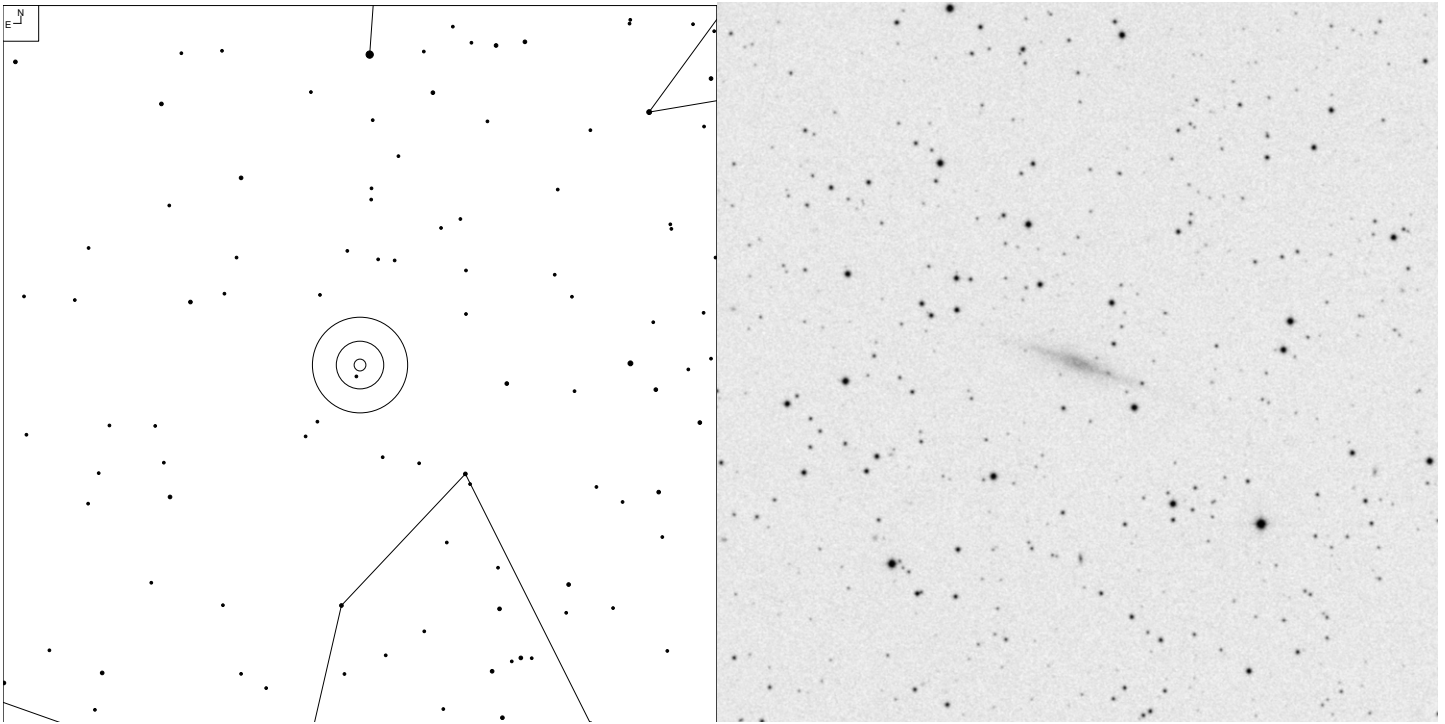
Name	RA	Dec	Mag	Size	Urano
UGC 4550	08h 43m 16.8s	+13°05'10"	14.3p	2.7 x 0.4'	94L

MCG-3-22-15 (Pyxis)



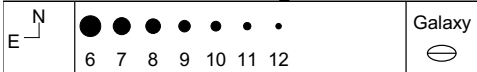
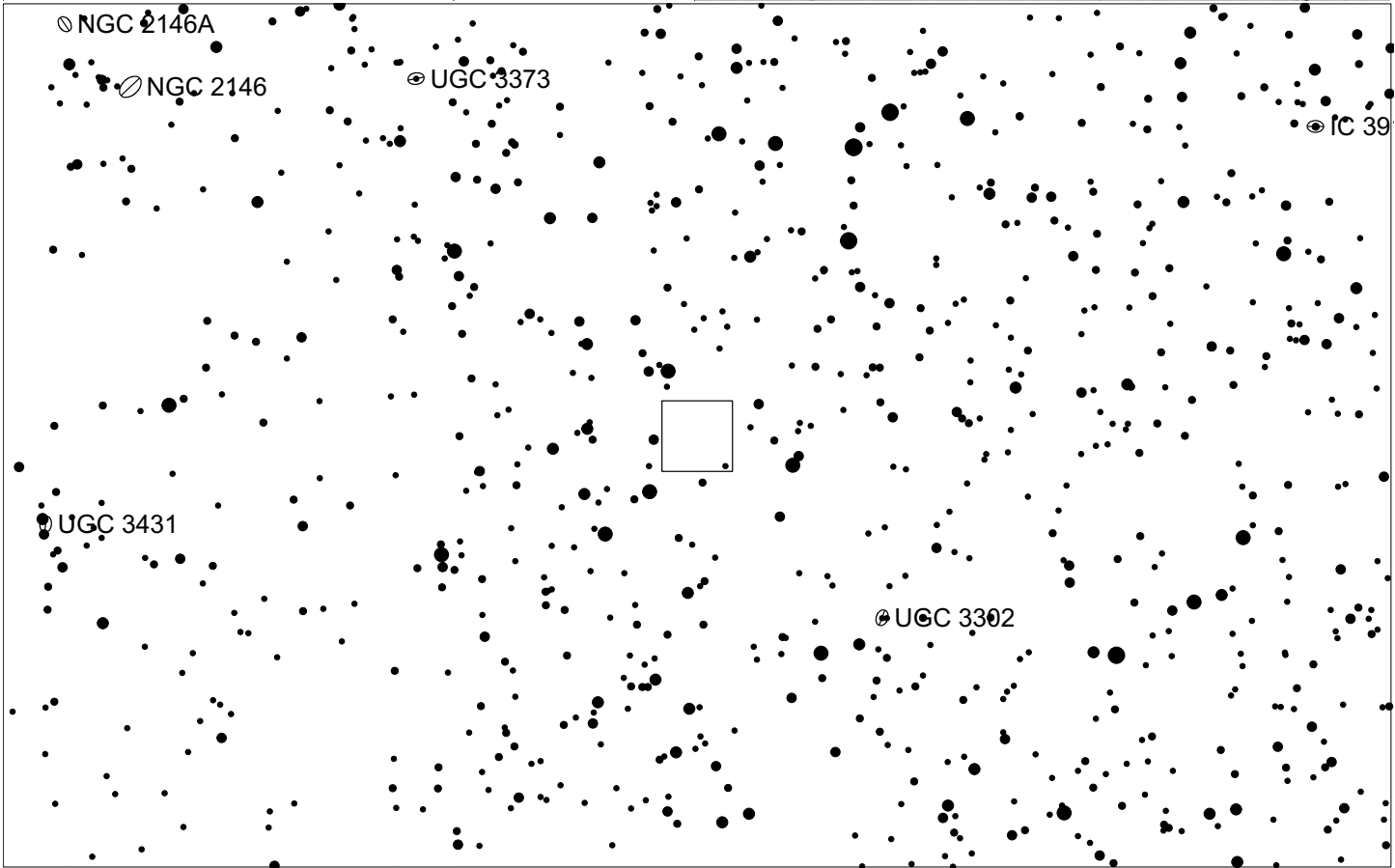
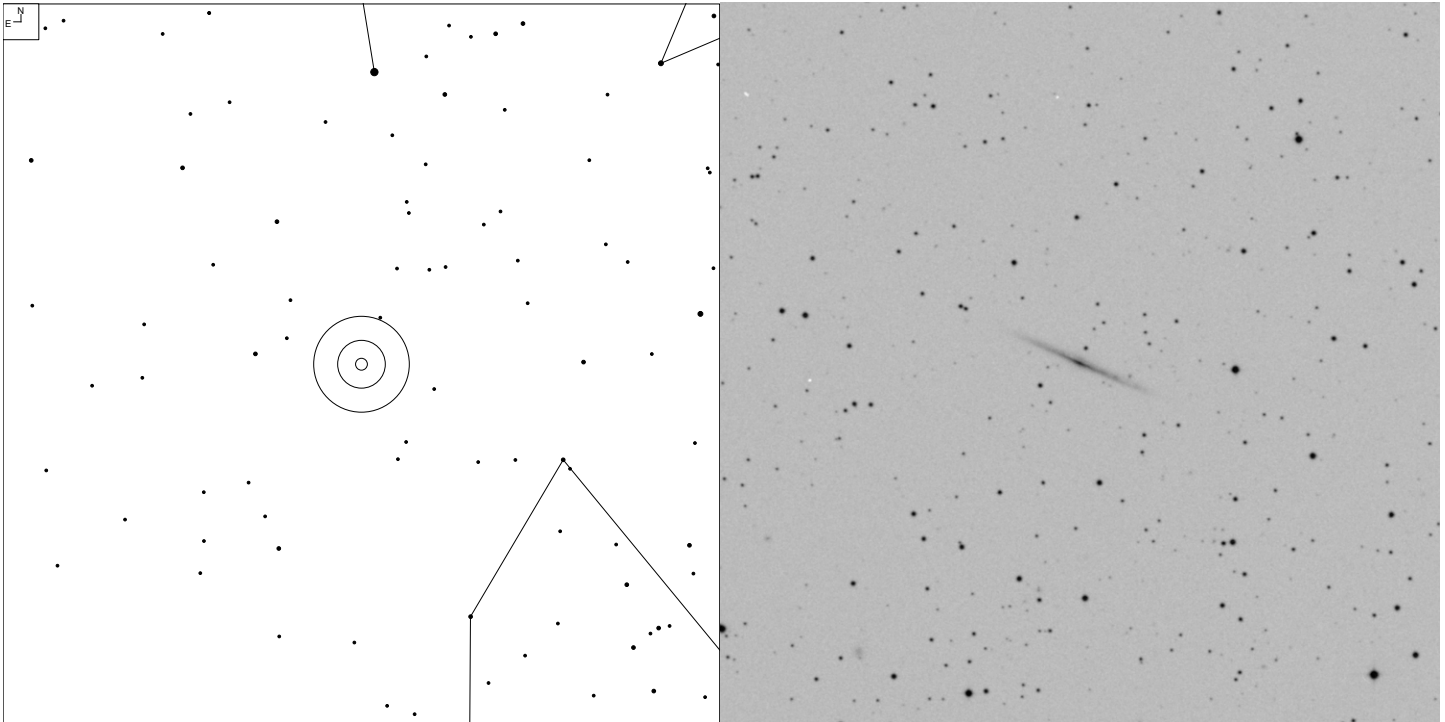
Name	RA	Dec	Mag	Size	Urano
MCG-3-22-15	08h 42m 57.6s	-20°03'04"	16.1	2.3 x 0.4'	152R

UGC 3137 (Camelopardalis)



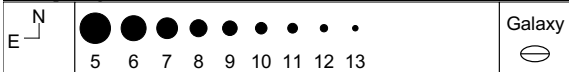
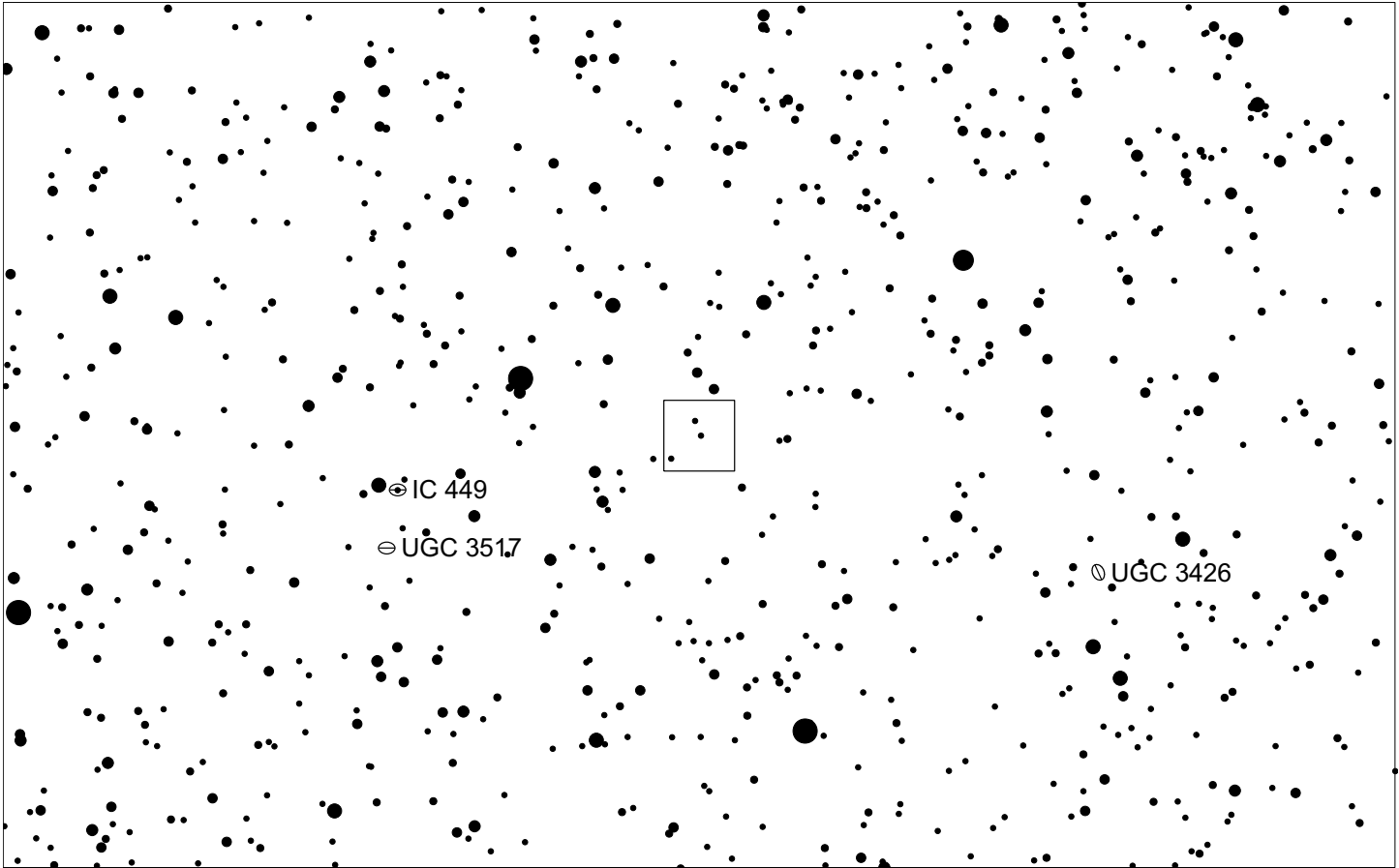
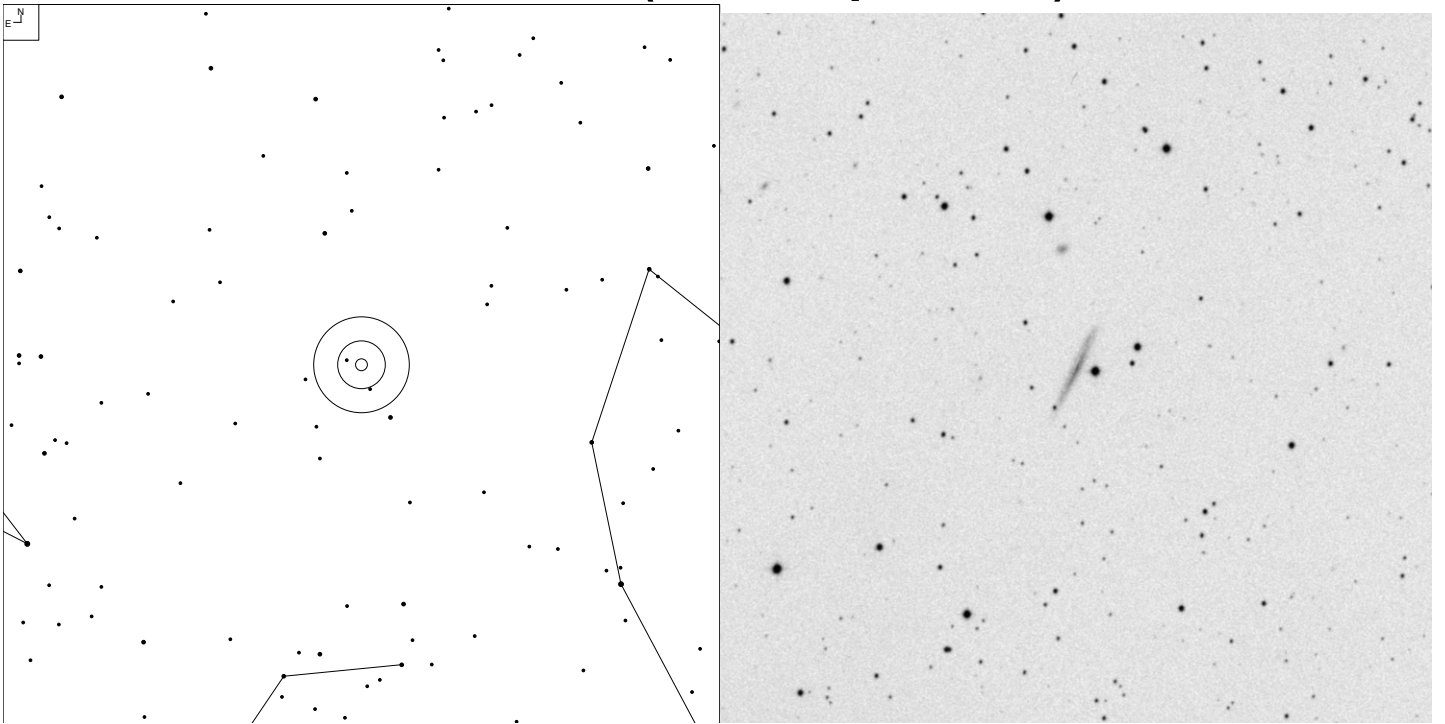
Name	RA	Dec	Mag	Size	Urano
UGC 3137	04h 46m 15.8s	+76°25'08"	15.1p	3.5 x 0.3'	7L

UGC 3326 (Camelopardalis)



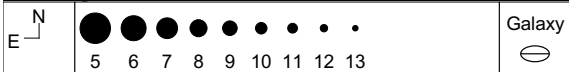
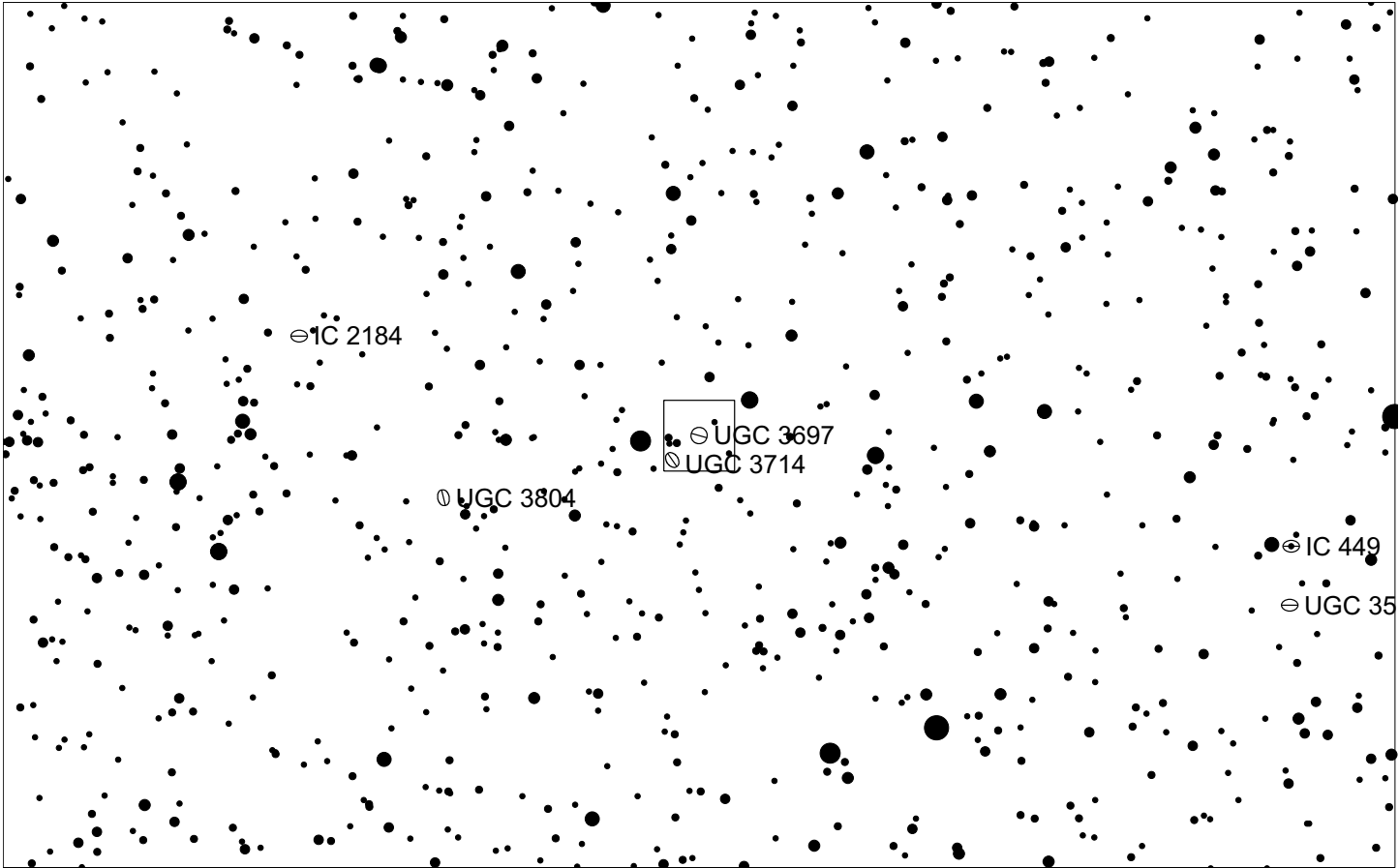
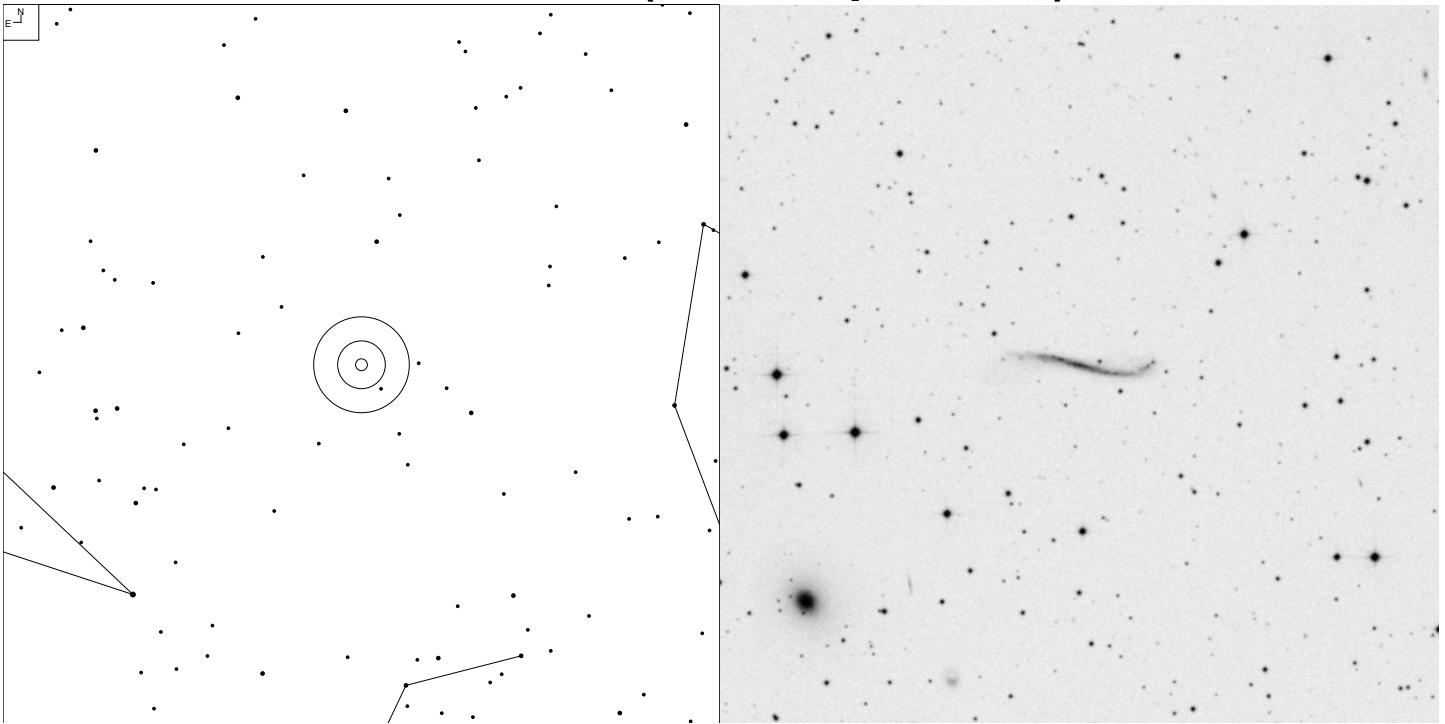
Name	RA	Dec	Mag	Size	Urano
UGC 3326	05h 39m 35.1s	+77°18'45"	15.3p	3.5 x 0.3'	7L

UGC 3474 (Camelopardalis)



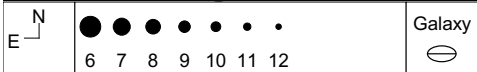
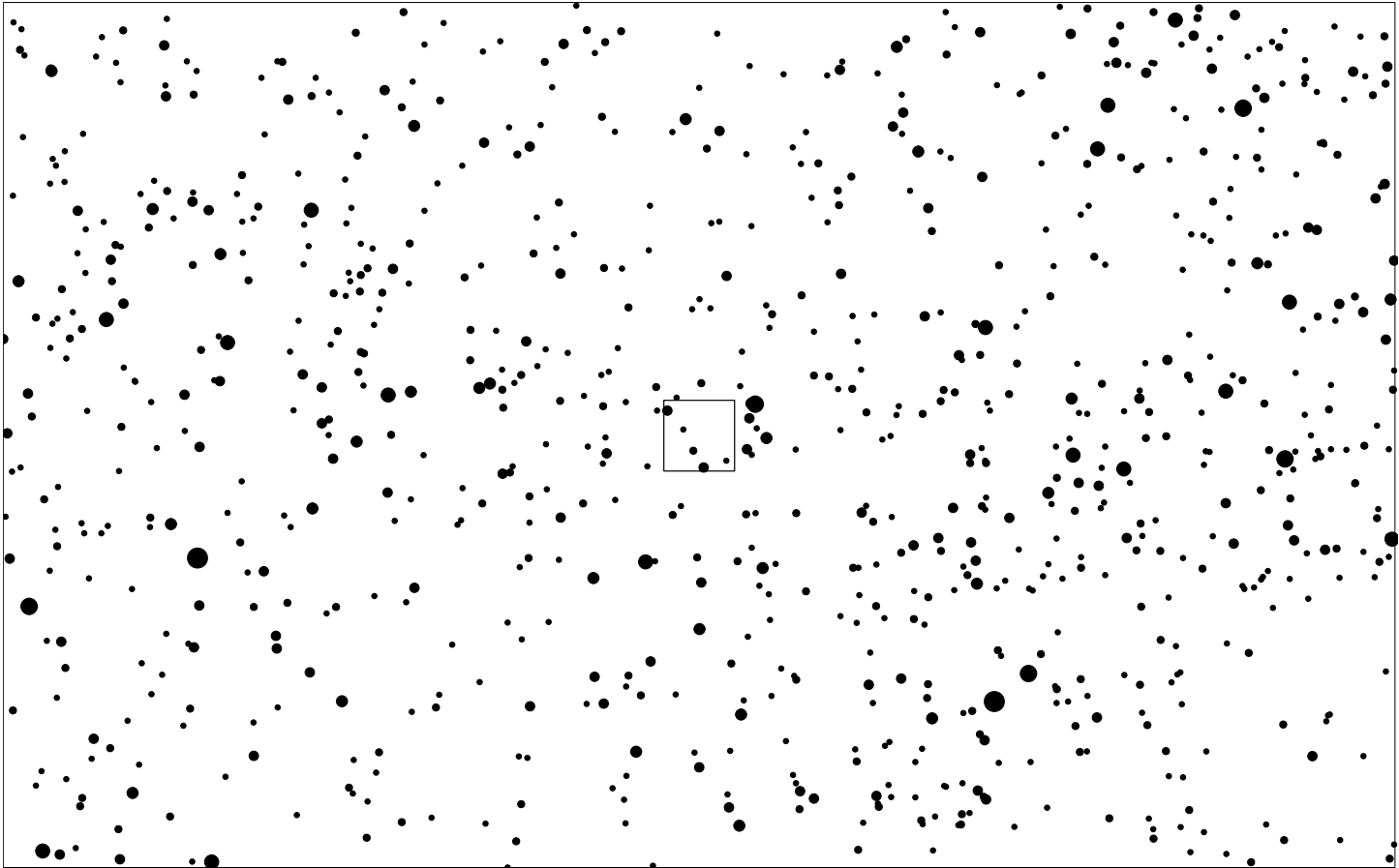
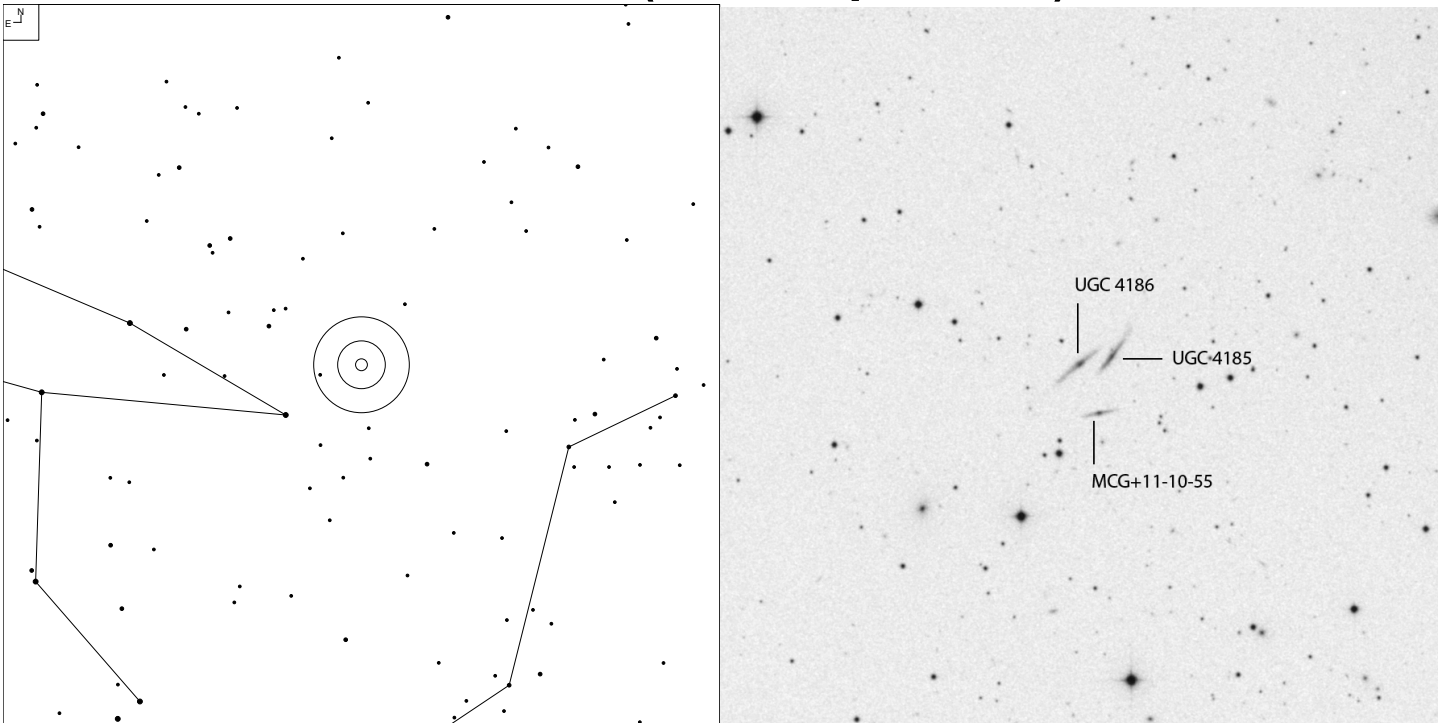
Name	RA	Dec	Mag	Size	Urano
UGC 3474	06h 32m 38.7s	+71°33'40"	15.4p	2.2 x 0.2'	15R

UGC 3697 (Camelopardalis)



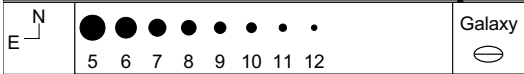
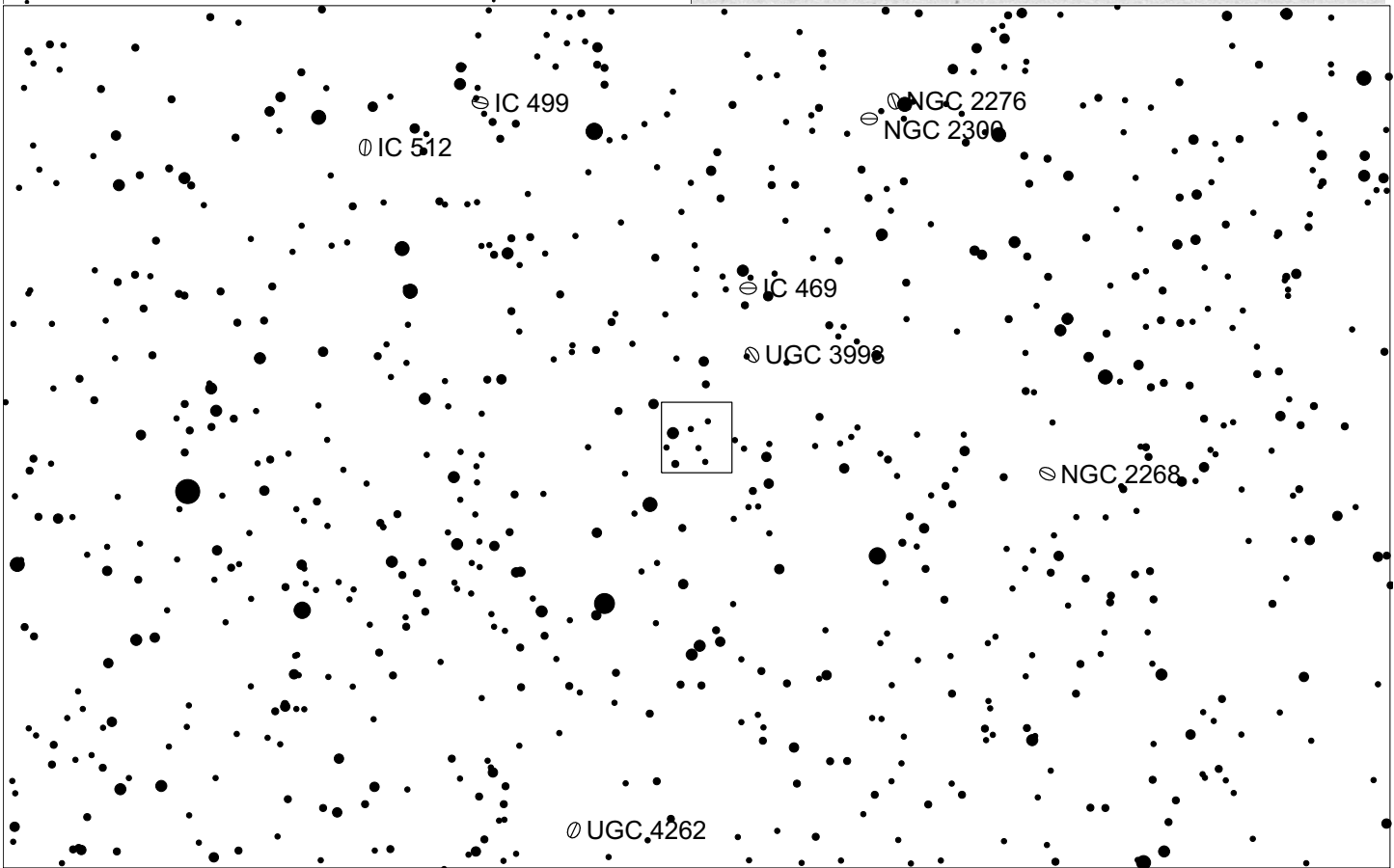
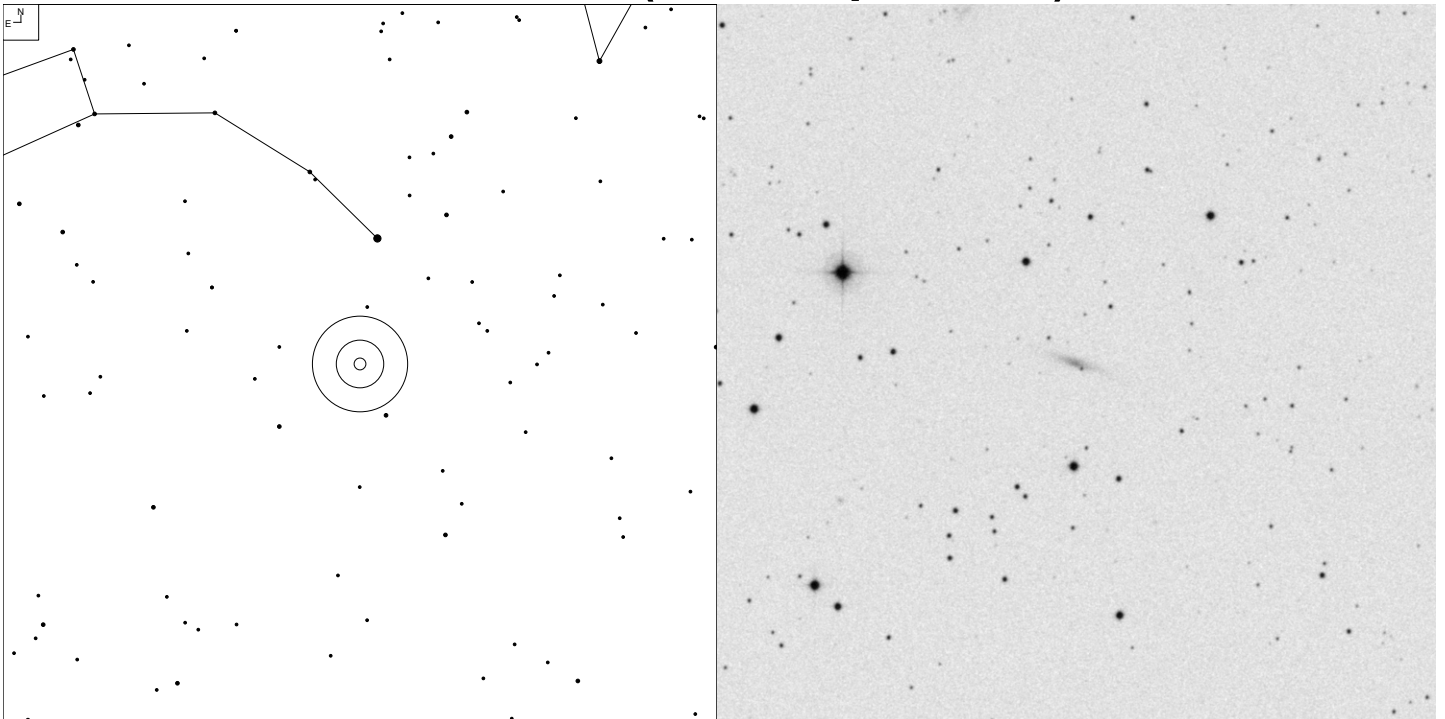
Name	RA	Dec	Mag	Size	Urano
UGC 3697	07h 11m 19.2s	+71°50'13"	13.5p	3.3 x 0.5'	15R

UGC 4186 (Camelopardalis)



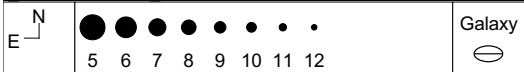
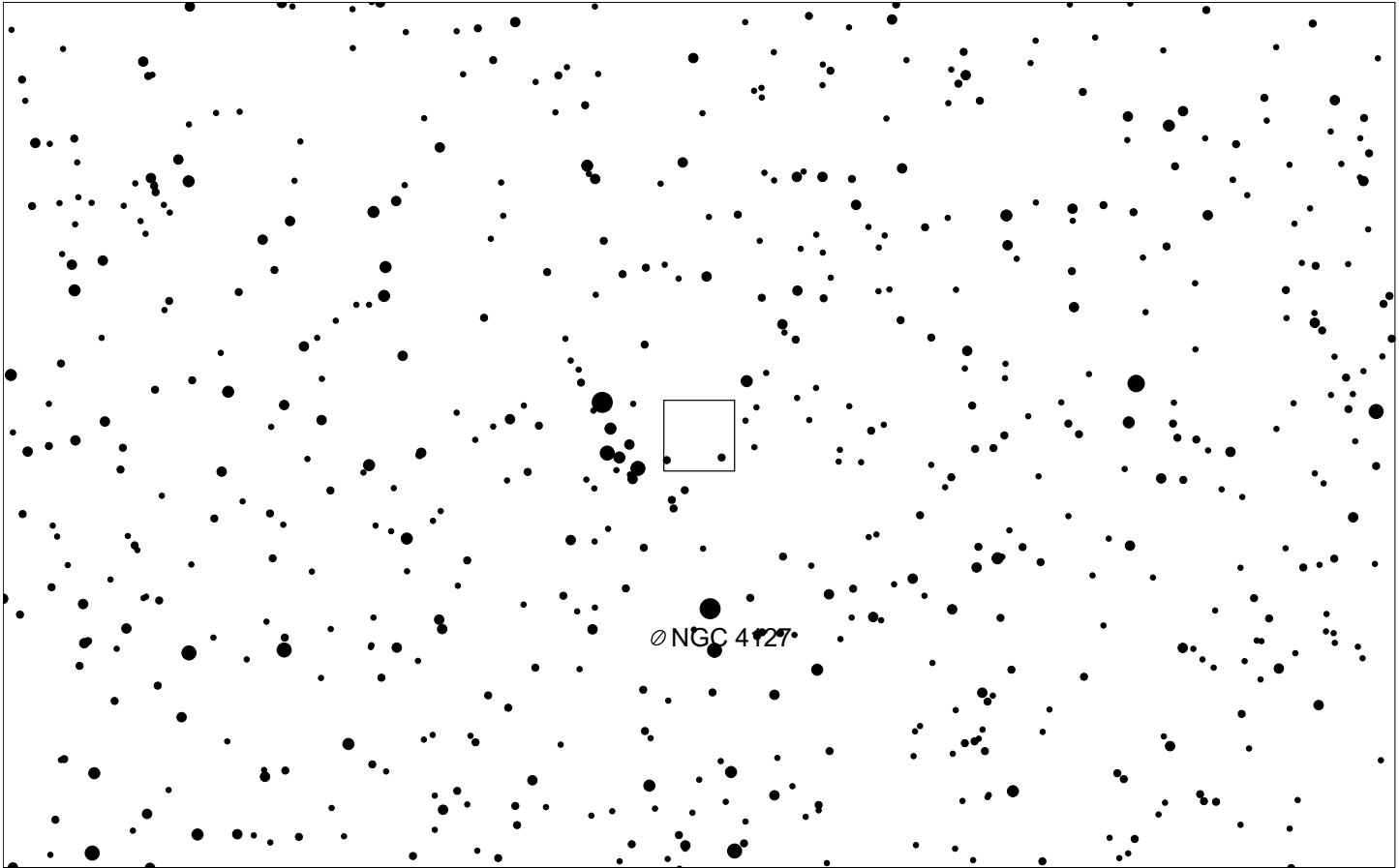
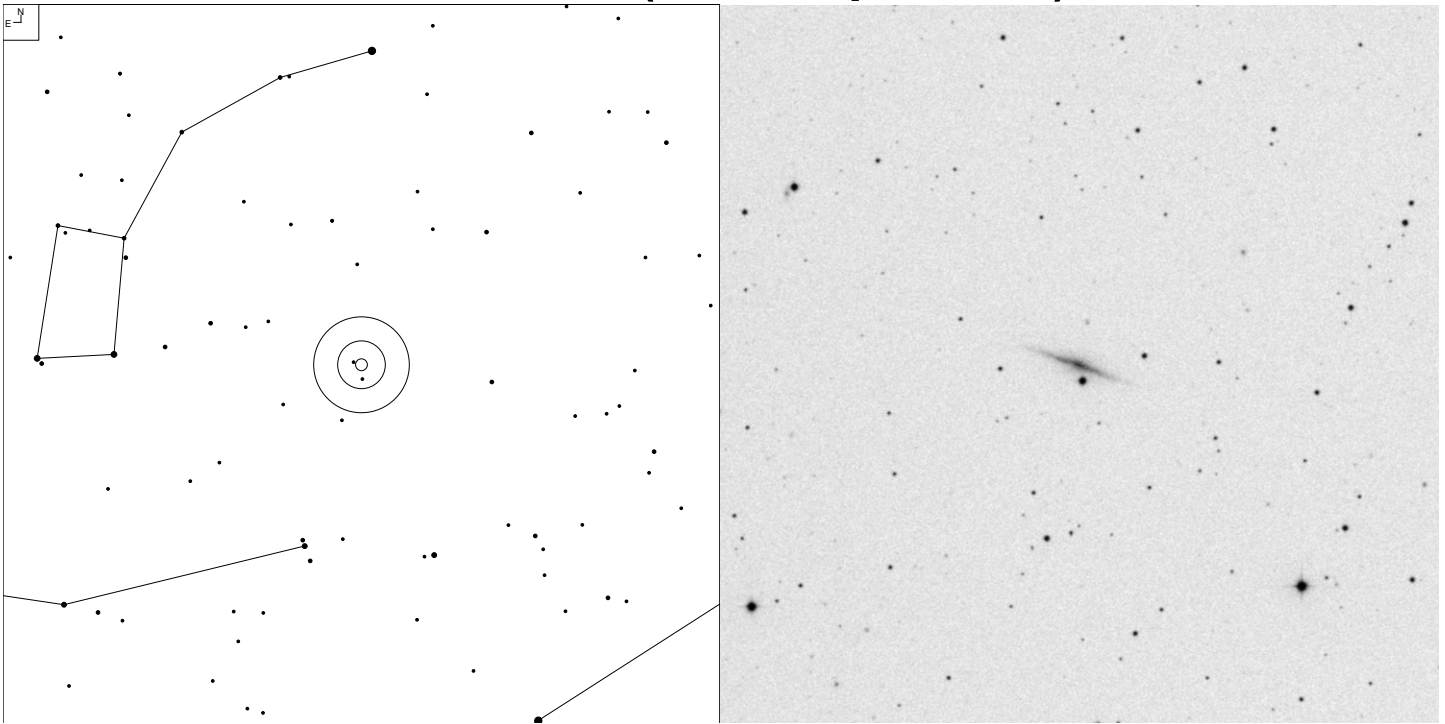
Name	RA	Dec	Mag	Size	Urano
UGC 4186	08h 04m 13.8s	+62°58'54"	15.4	1.3 x 0.2'	15L
Flat Galaxies					

UGC 4078 (Camelopardalis)



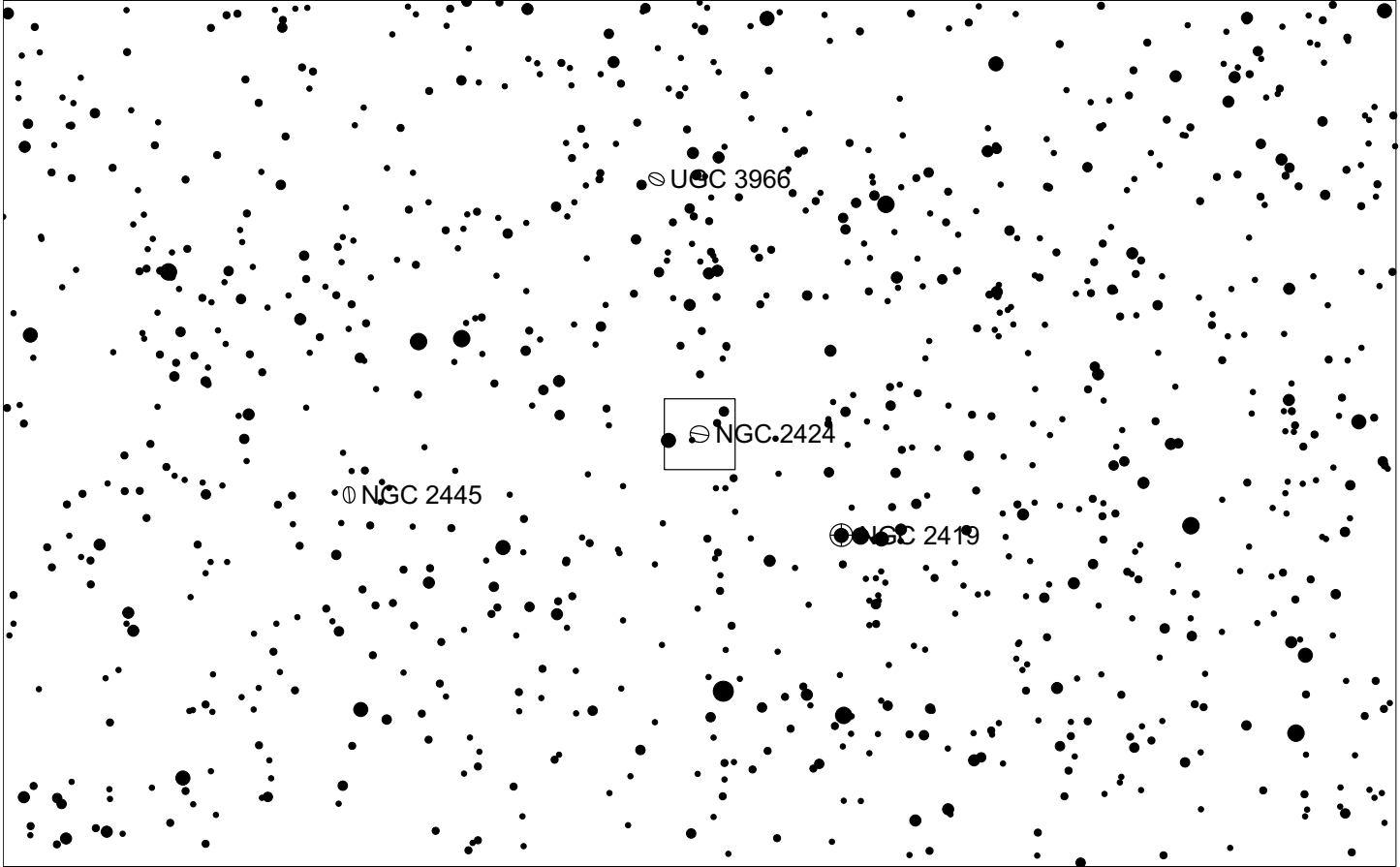
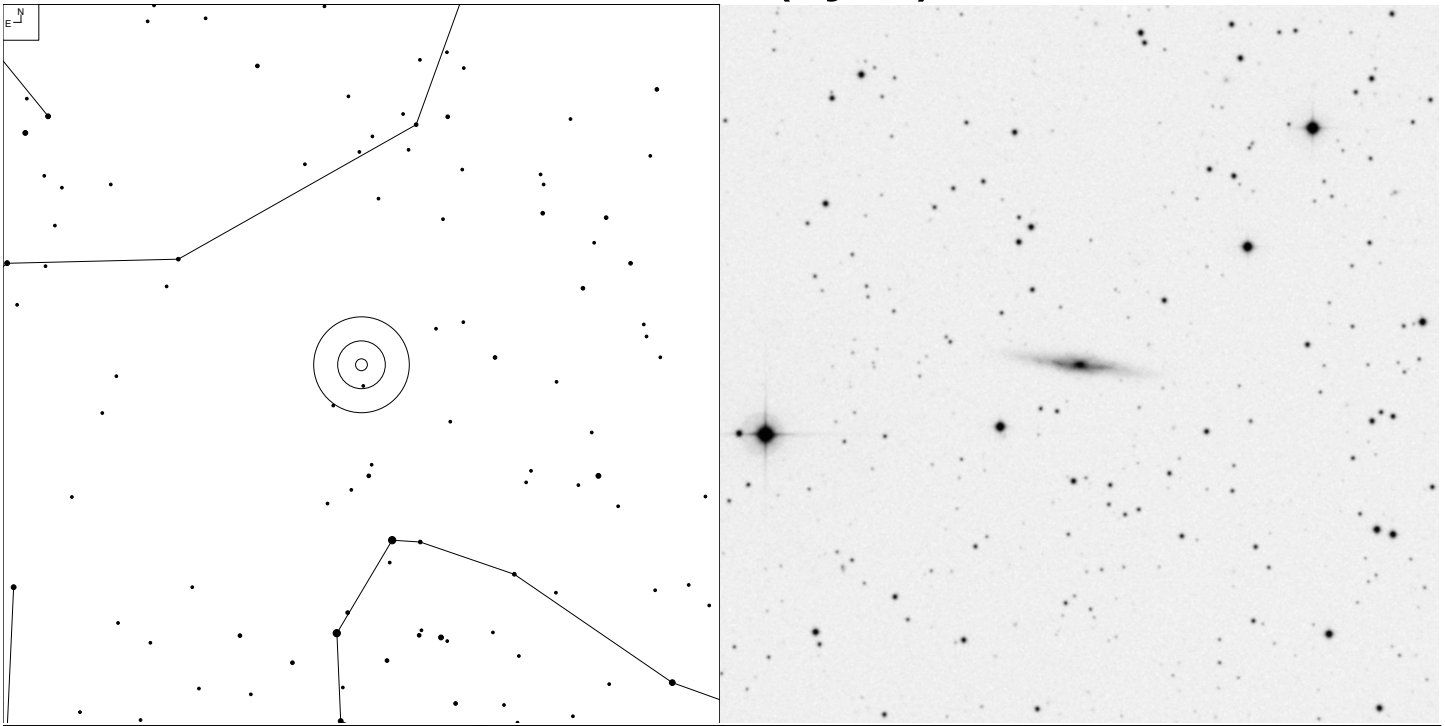
Name	RA	Dec	Mag	Size	Urano
UGC 4078	08h 04m 18.7s	+84°38'30"	15.1p	2.0 x 0.4'	1R

UGC 7086 (Camelopardalis)



Name	RA	Dec	Mag	Size	Urano
UGC 7086	12h 05m 55.2s	+77°30'19"	15.1	2.7 x 0.3'	5R

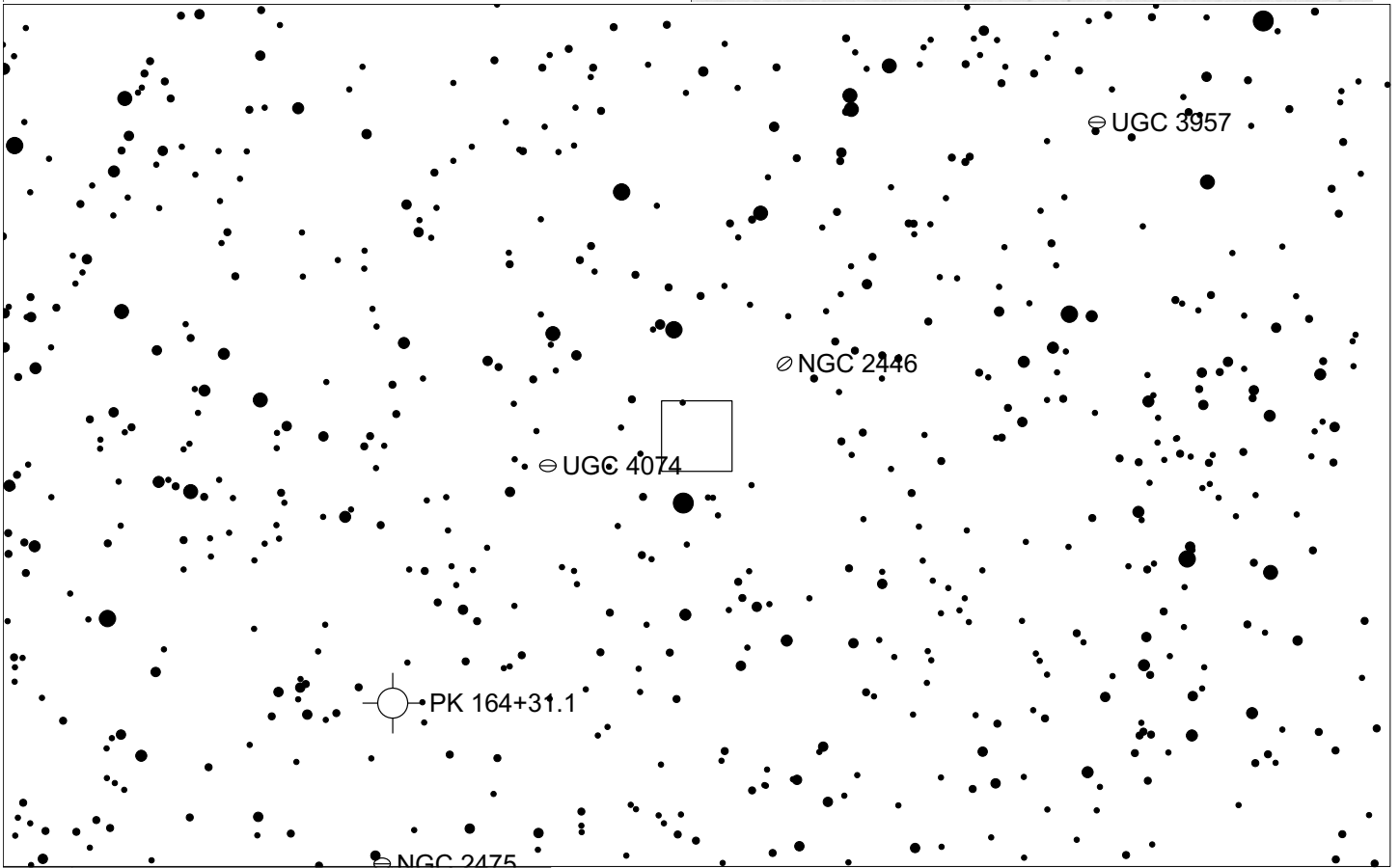
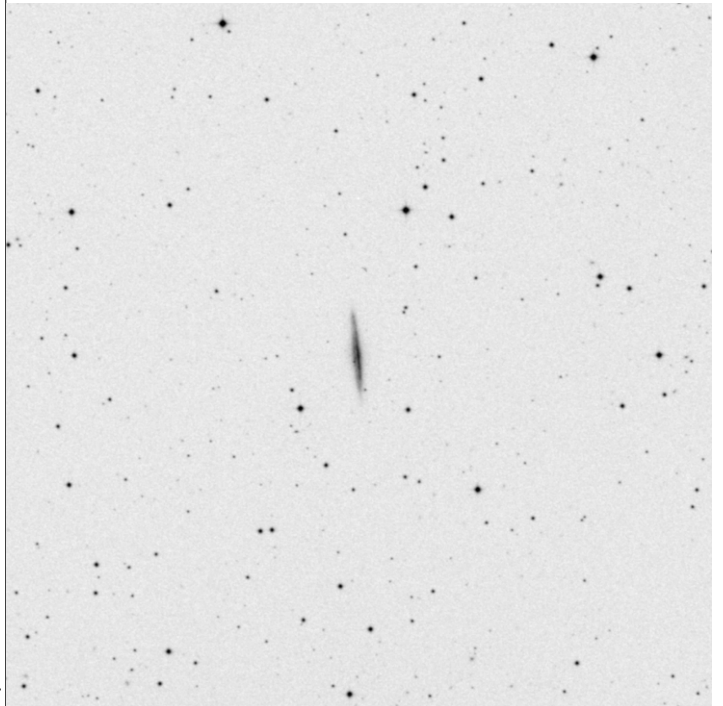
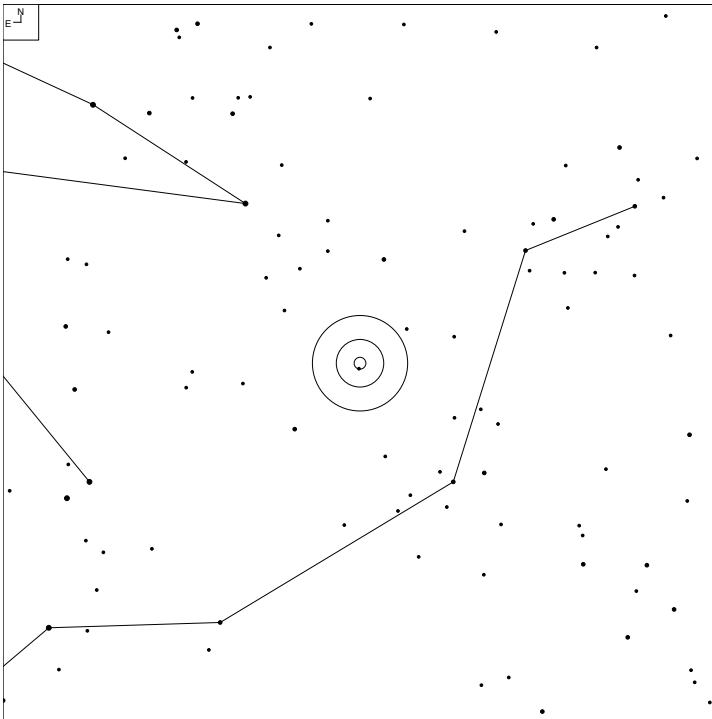
NGC 2424 (Lynx)



E N	●	●	●	●	●	●	●
	6	7	8	9	10	11	12
	Galaxy		Globular				
	⊖		⊕				

Name	RA	Dec	Mag	Size	Urano
NGC 2424	07h 40m 38.4s	+39°13'59"	13.6p	3.8 x 0.5'	57R

UGC 4043 (Lynx)

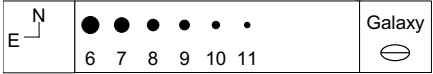
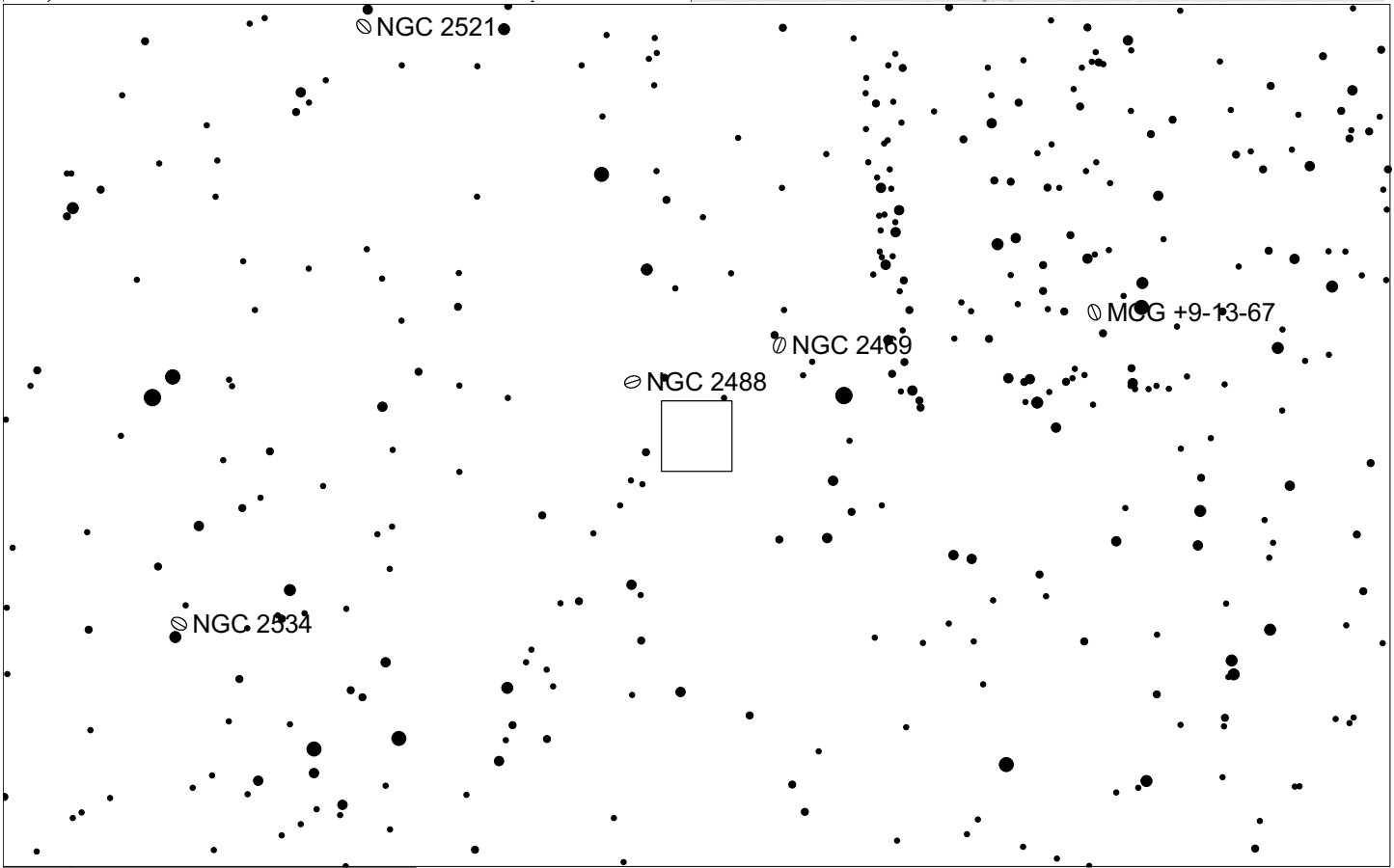
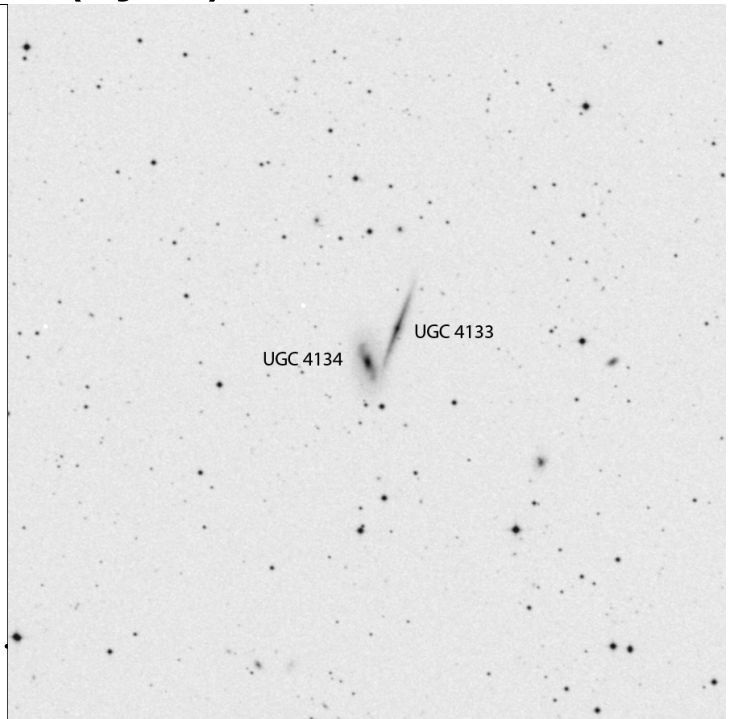
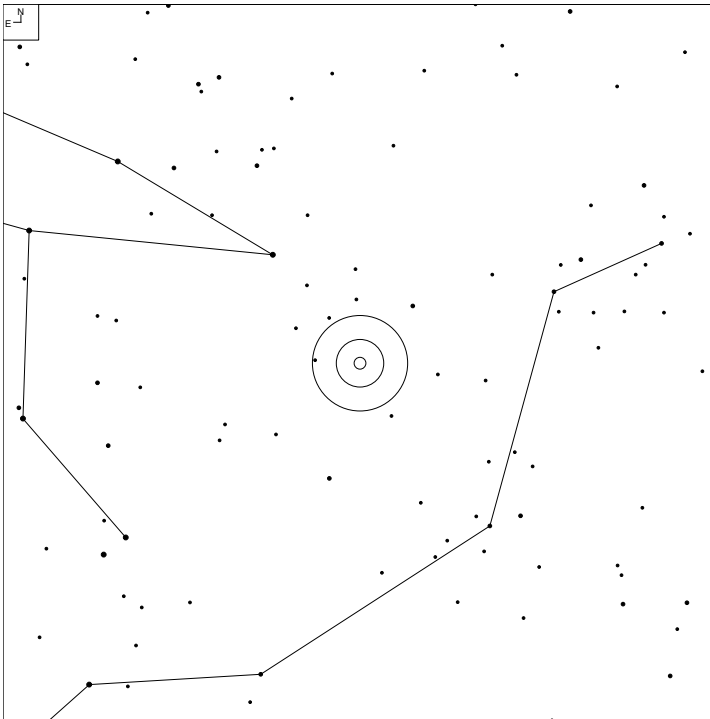


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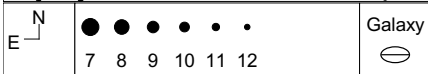
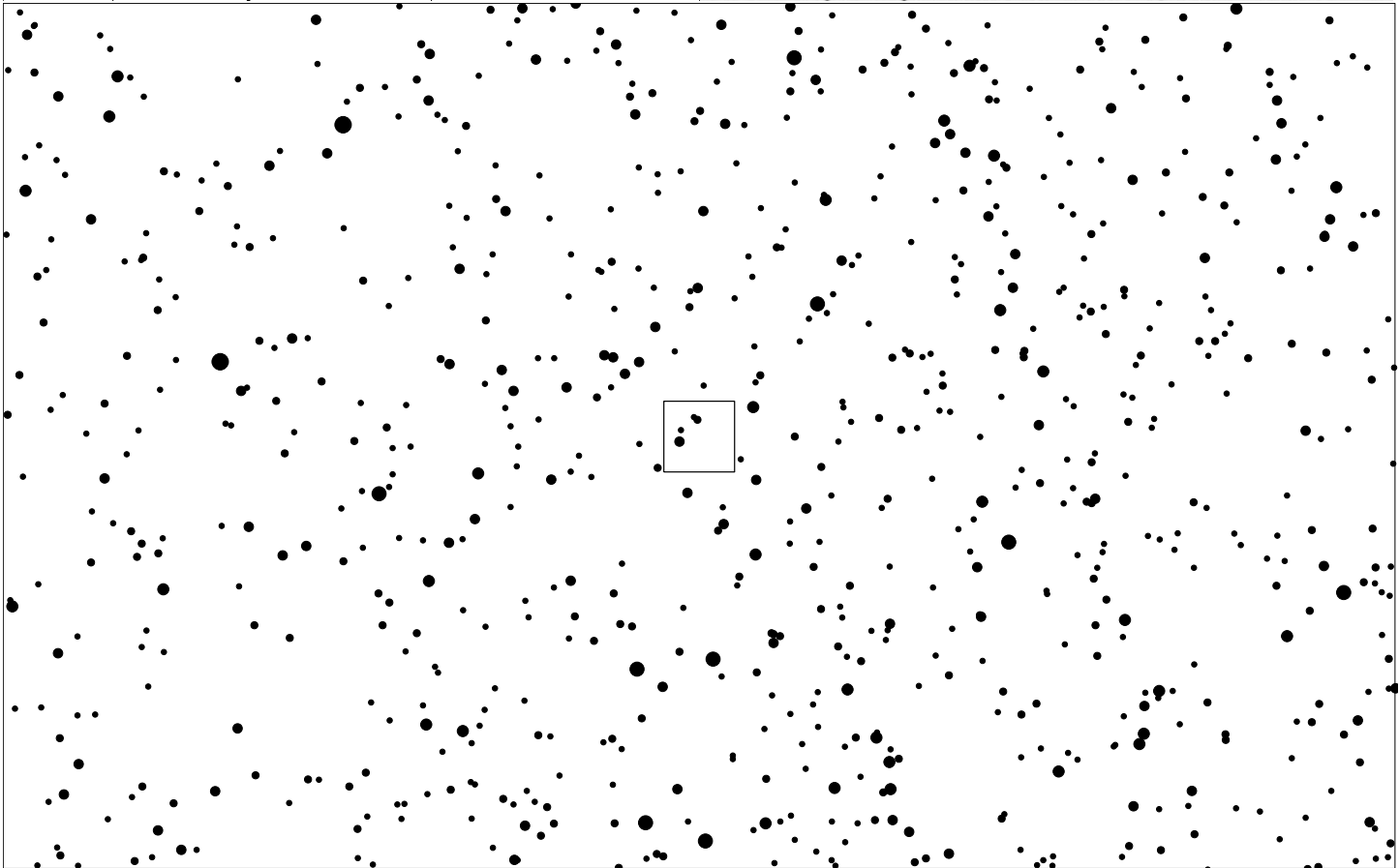
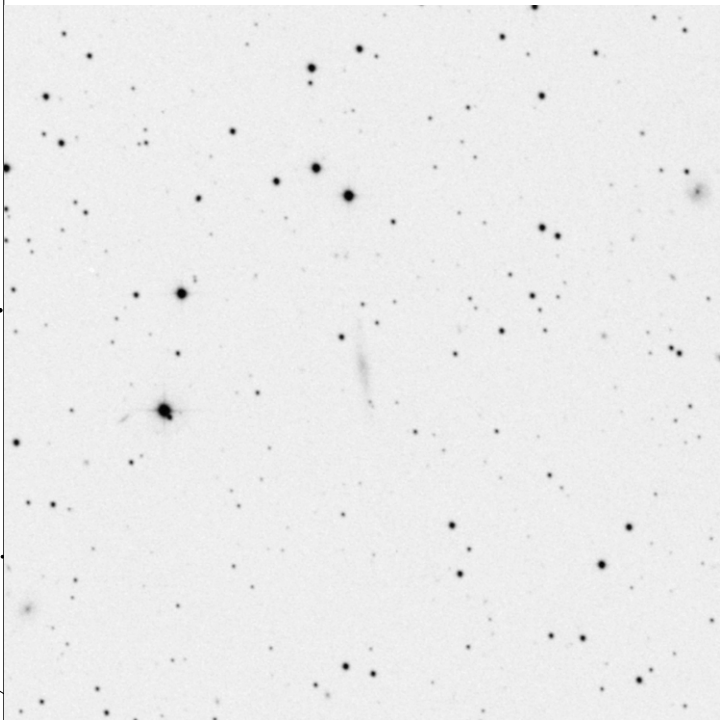
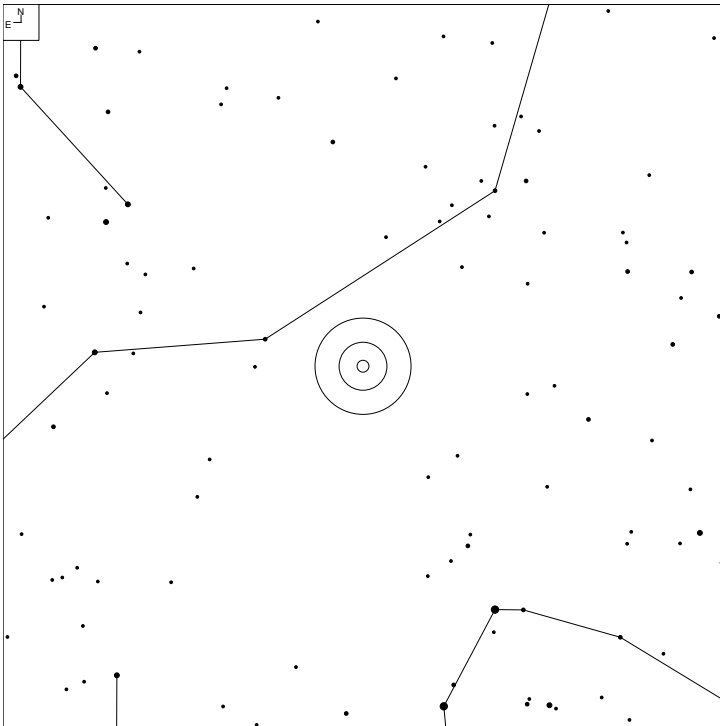
Name	RA	Dec	Mag	Size	Urano
UGC 4043	07h 50m 45.6s	+54°21'43"	14.8p	2.0 x 0.2'	26R

UGC 4133 (Lynx)



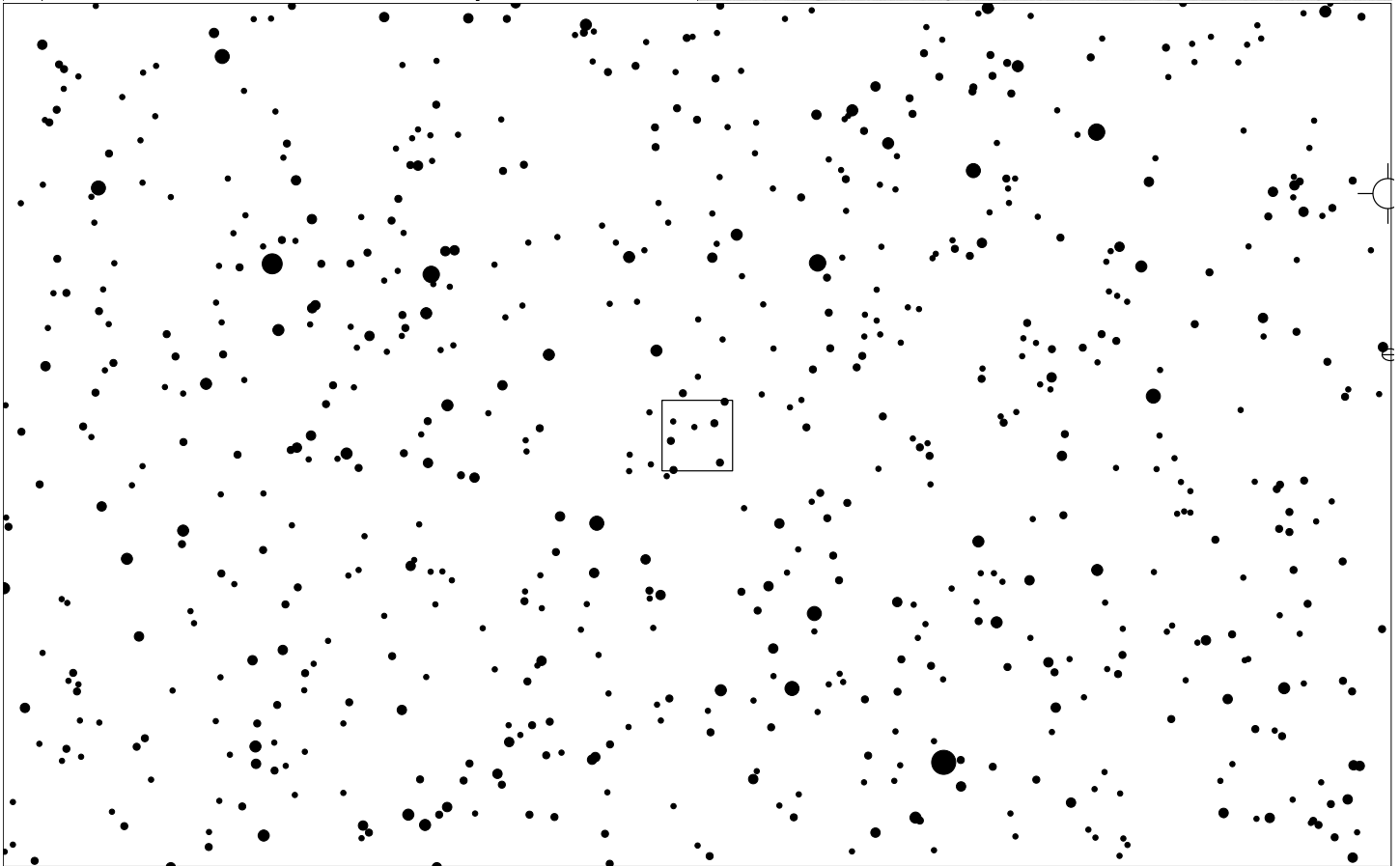
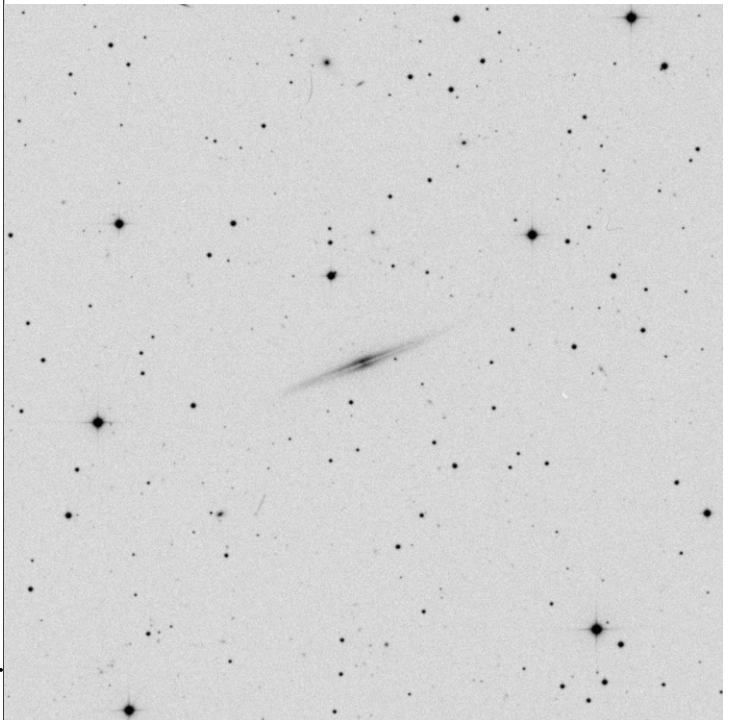
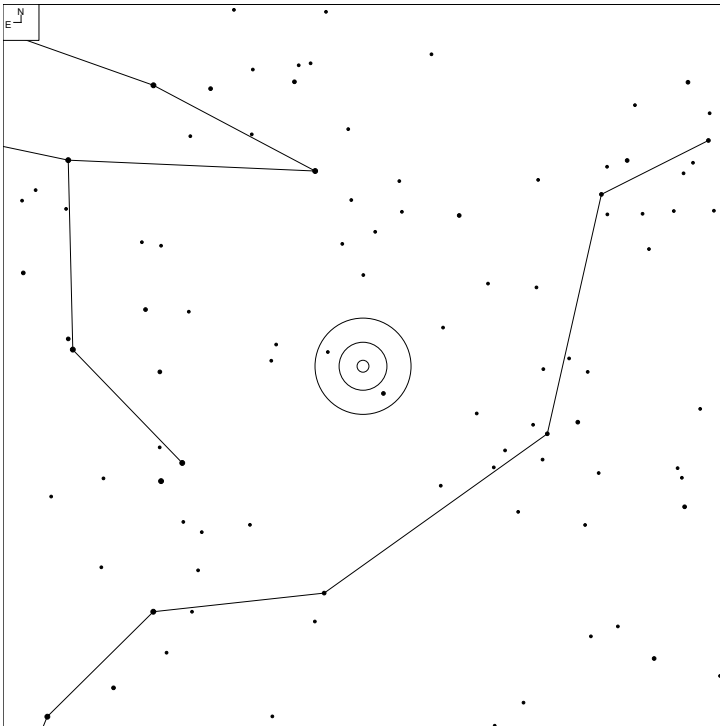
Name	RA	Dec	Mag	Size	Urano
UGC 4133	08h 00m 12.8s	+56°21'11"	15.1	1.0 x 0.4'	26L

UGC 4148 (Lynx)



Name	RA	Dec	Mag	Size	Urano
UGC 4148	08h 00m 23.5s	+42°11'32"	15.2p	2.5 x 0.3'	40R

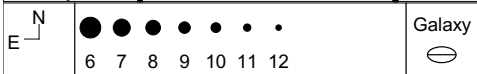
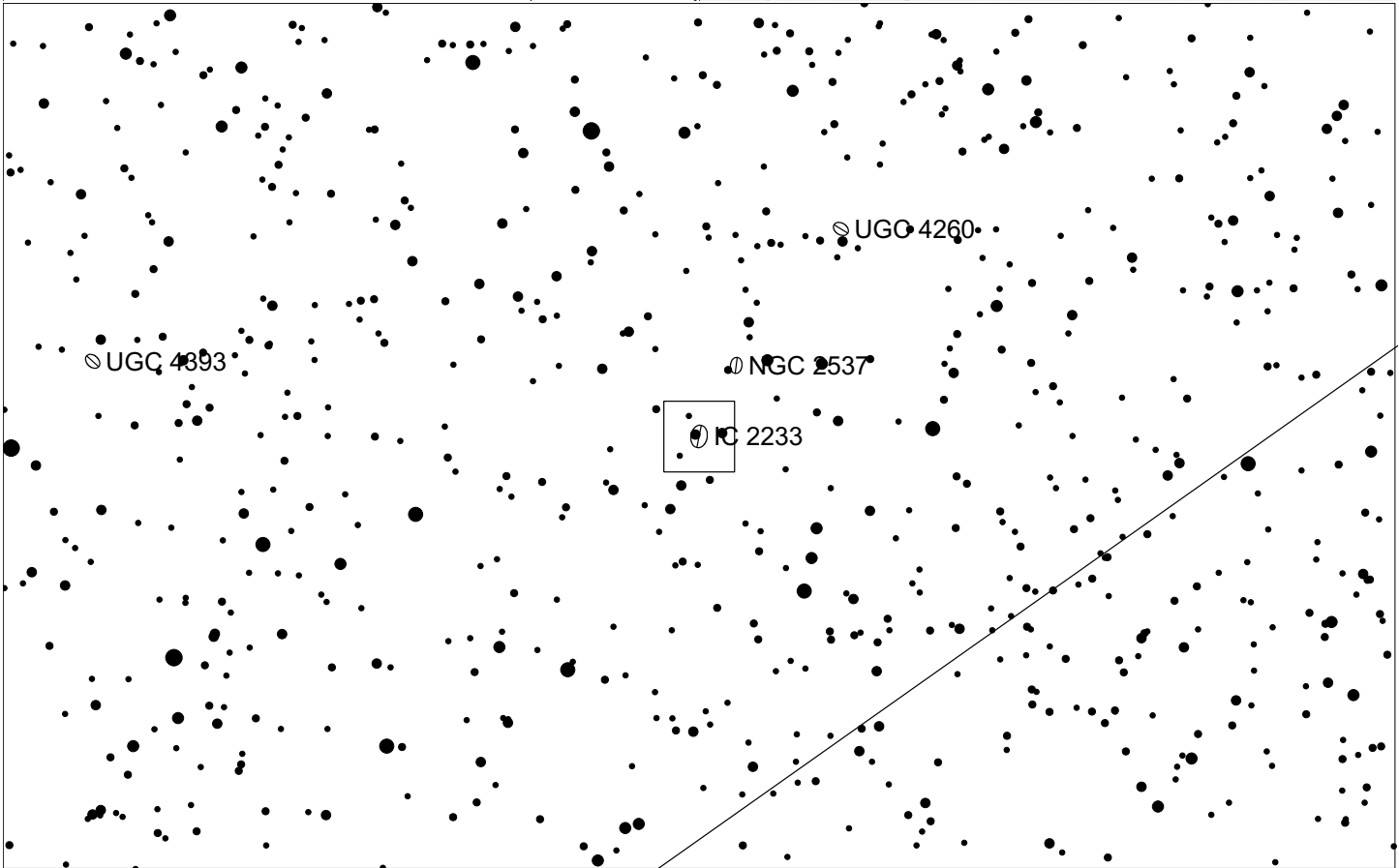
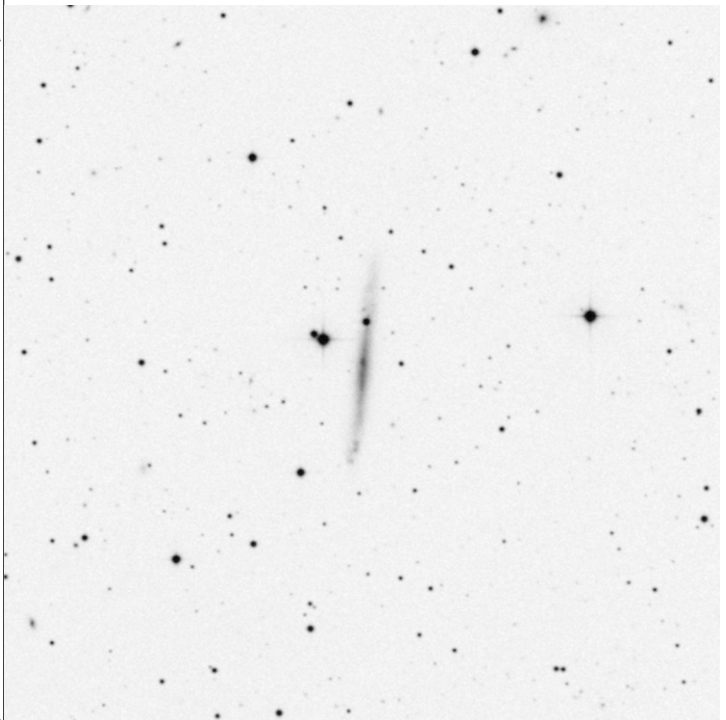
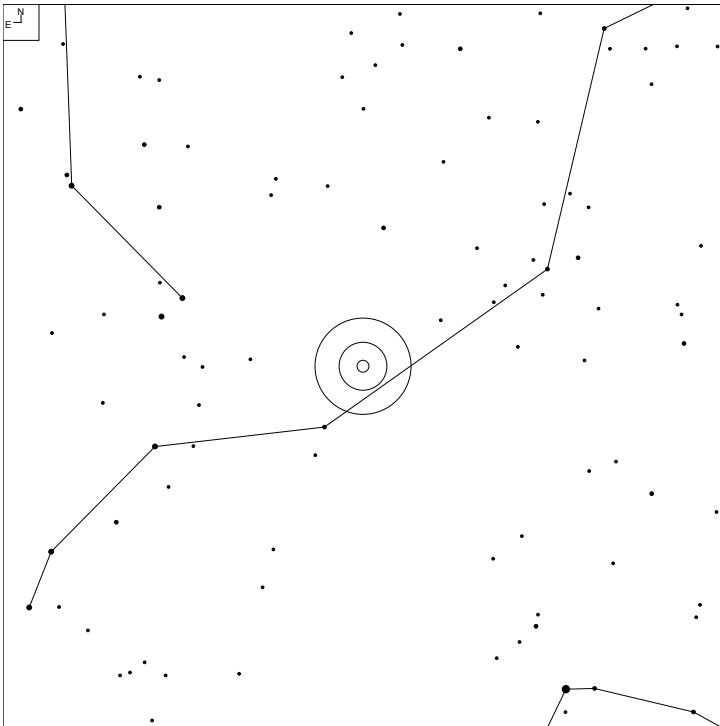
UGC 4277 (Lynx)



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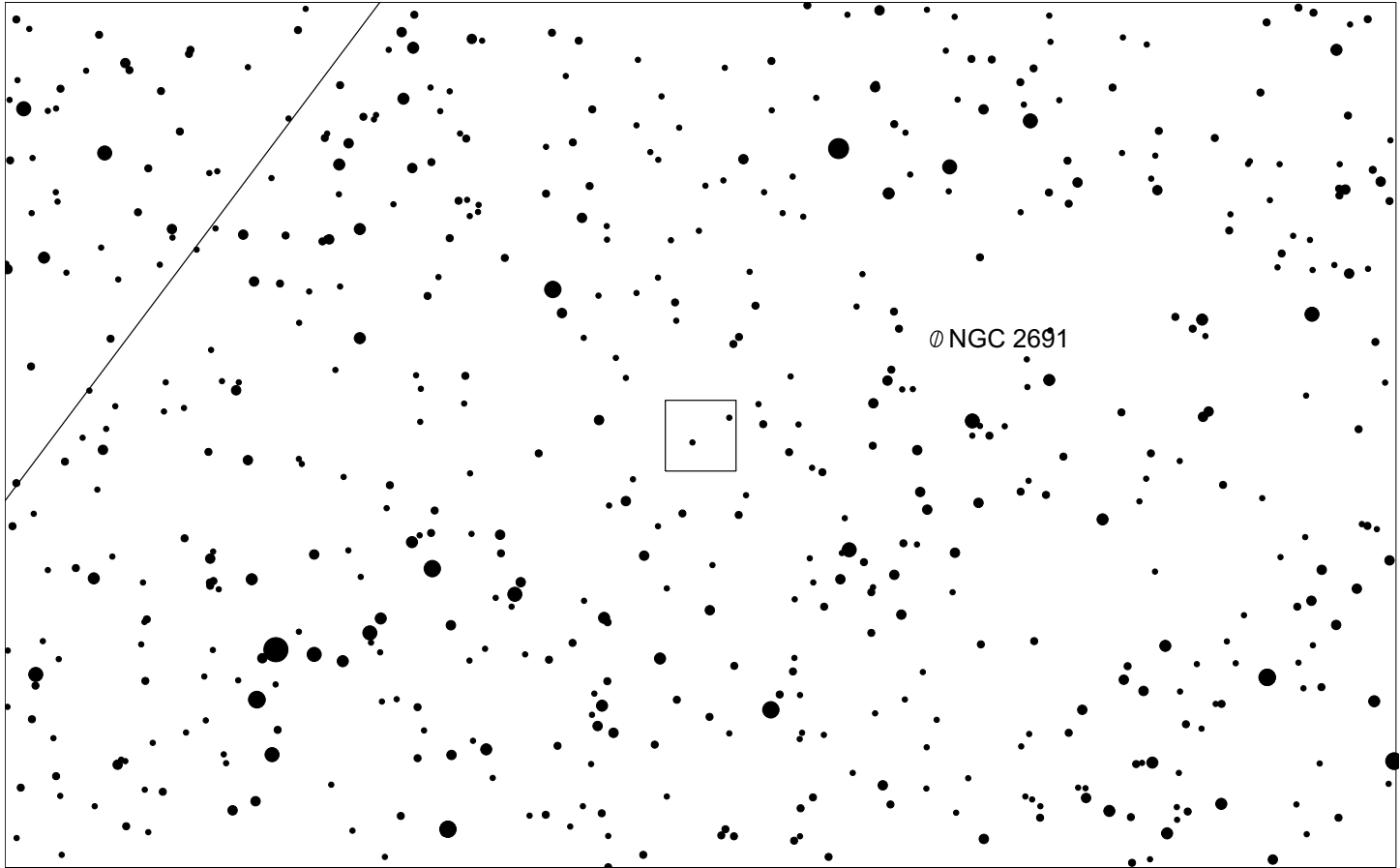
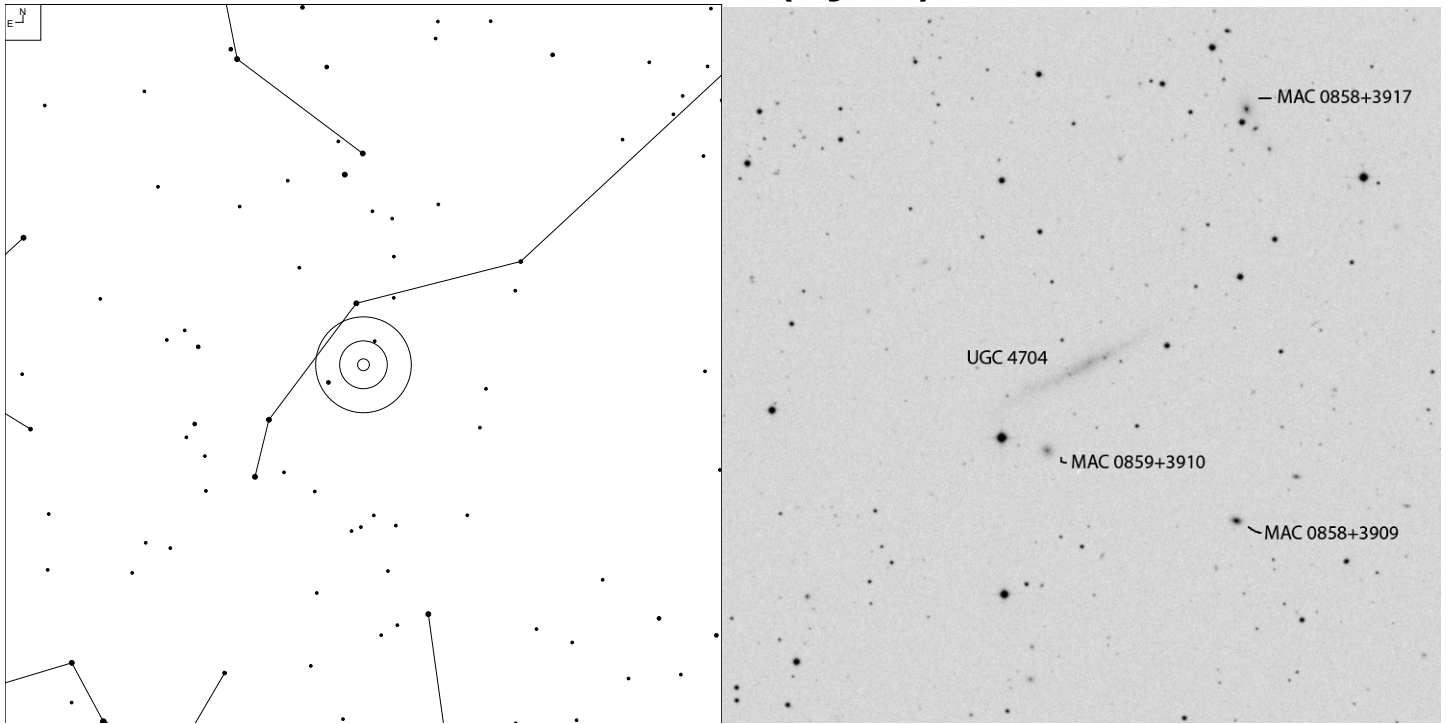
Name	RA	Dec	Mag	Size	Urano
UGC 4277	08h 13m 57.6s	+52°38'53"	14.9p	3.9 x 0.4'	26L

IC 2233 (Lynx)



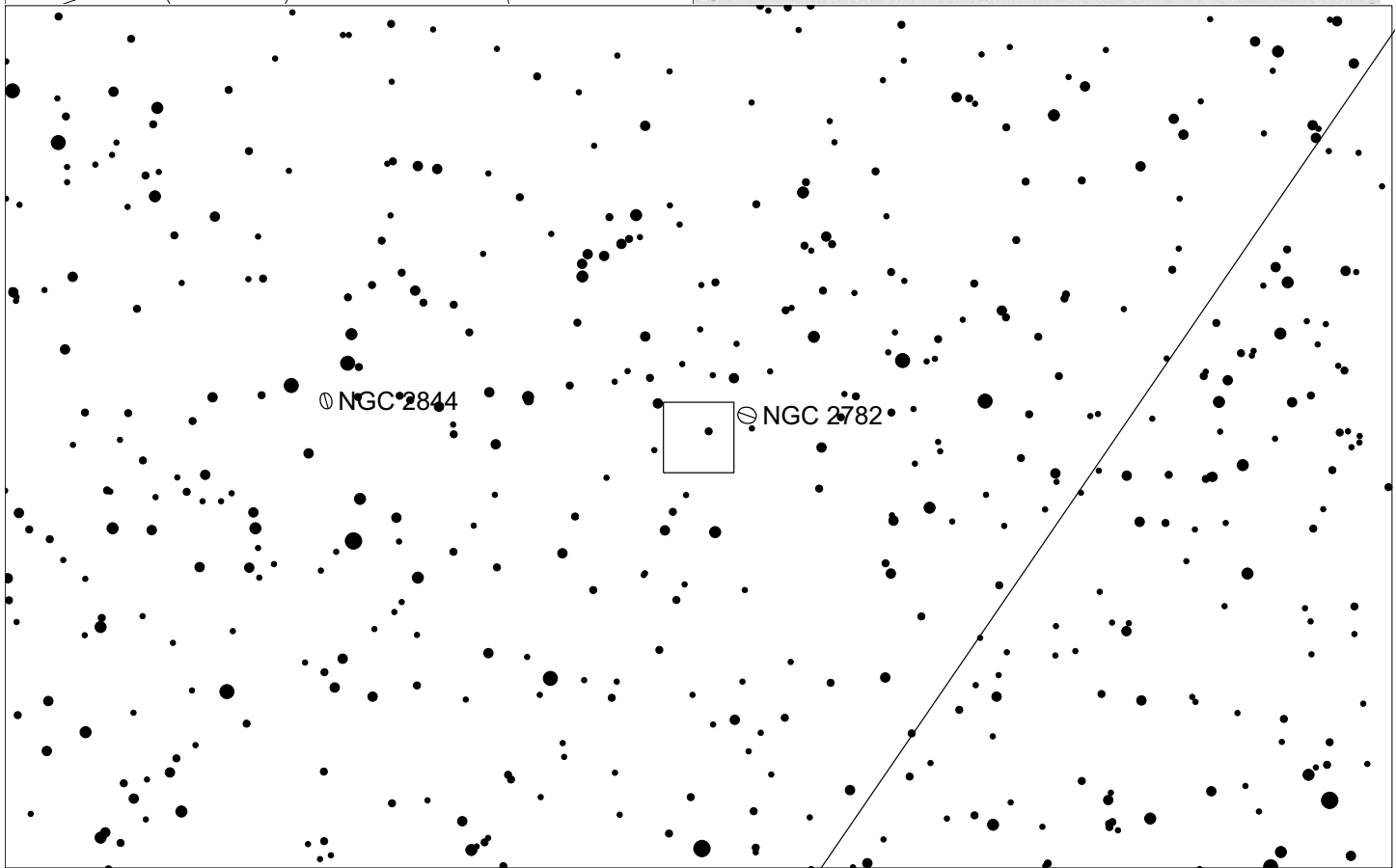
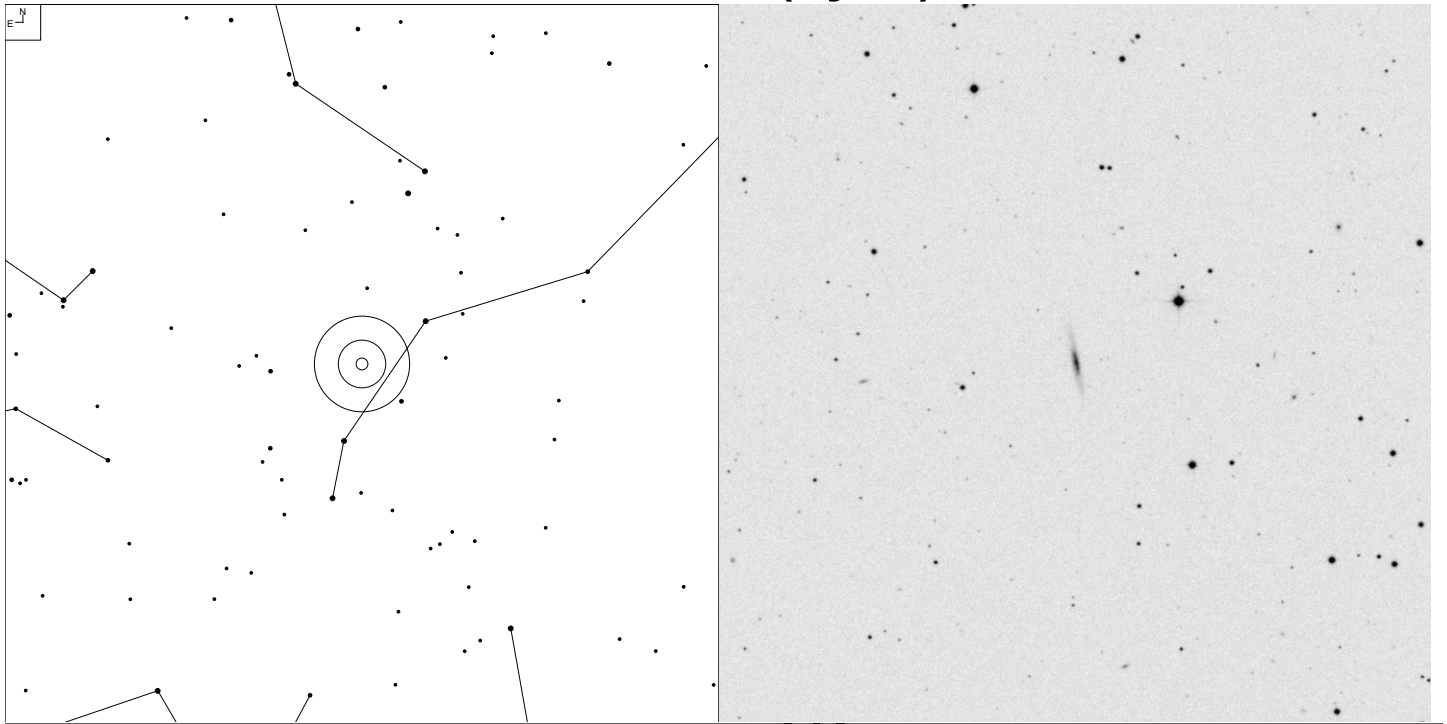
Name	RA	Dec	Mag	Size	Urano
IC 2233	08h 13m 58.9s	+45°44'43"	12.4	4.7 x 0.5'	40L

UGC 4704 (Lynx)



Name	RA	Dec	Mag	Size	Urano
UGC 4704	08h 59m 01.0s	+39°12'33"	15.1p	2.0 x 0.9'	6L

UGC 4872 (Lynx)

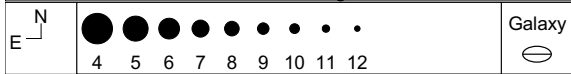
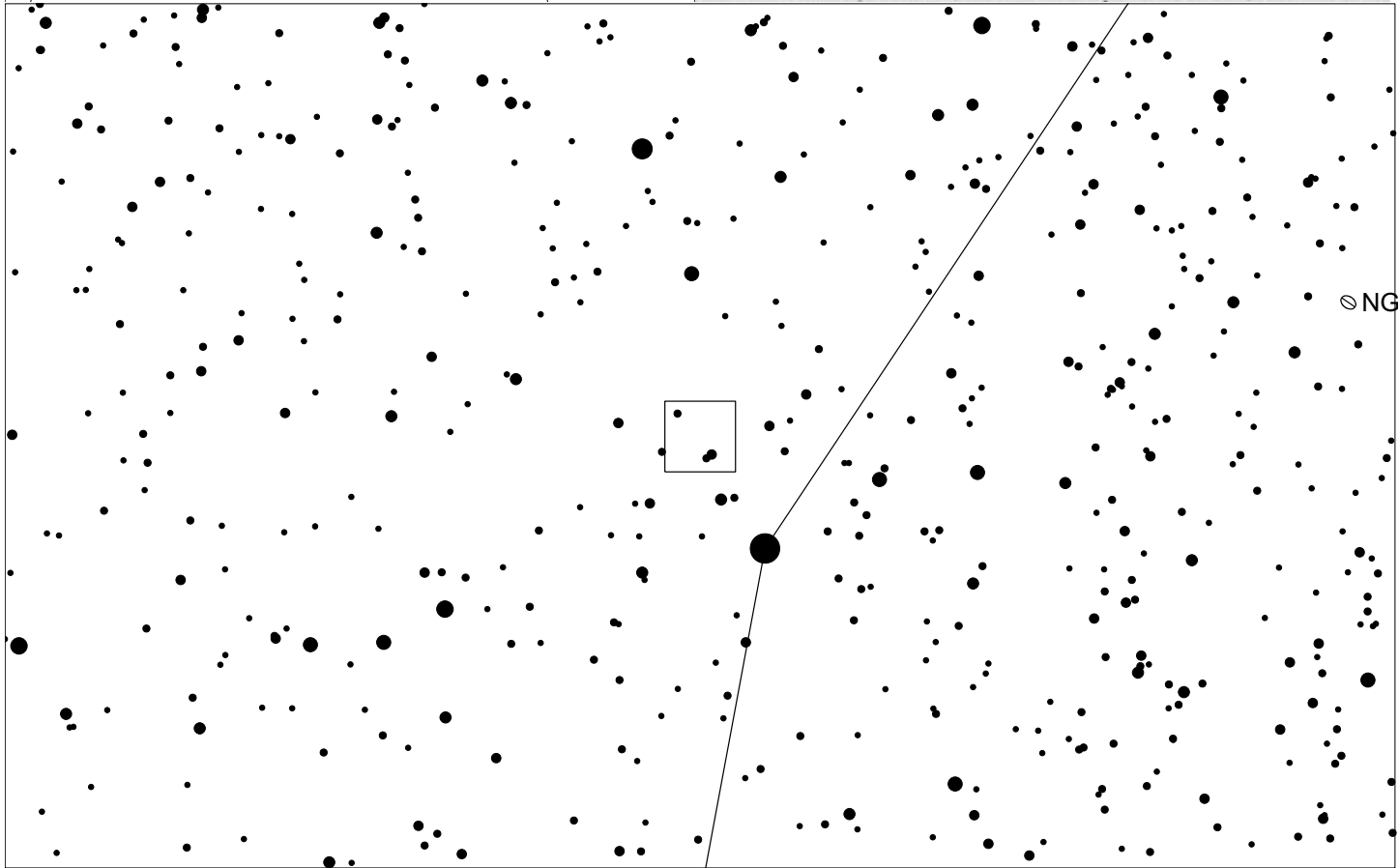
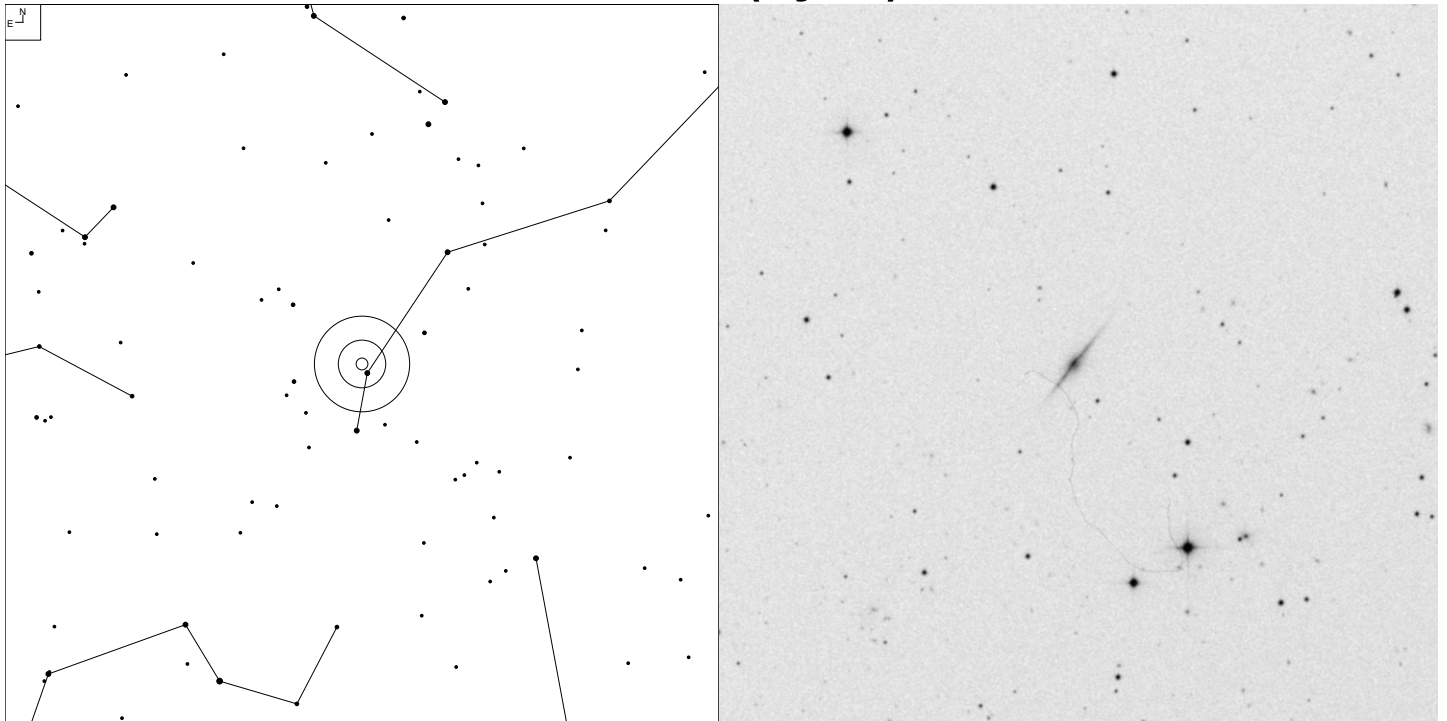


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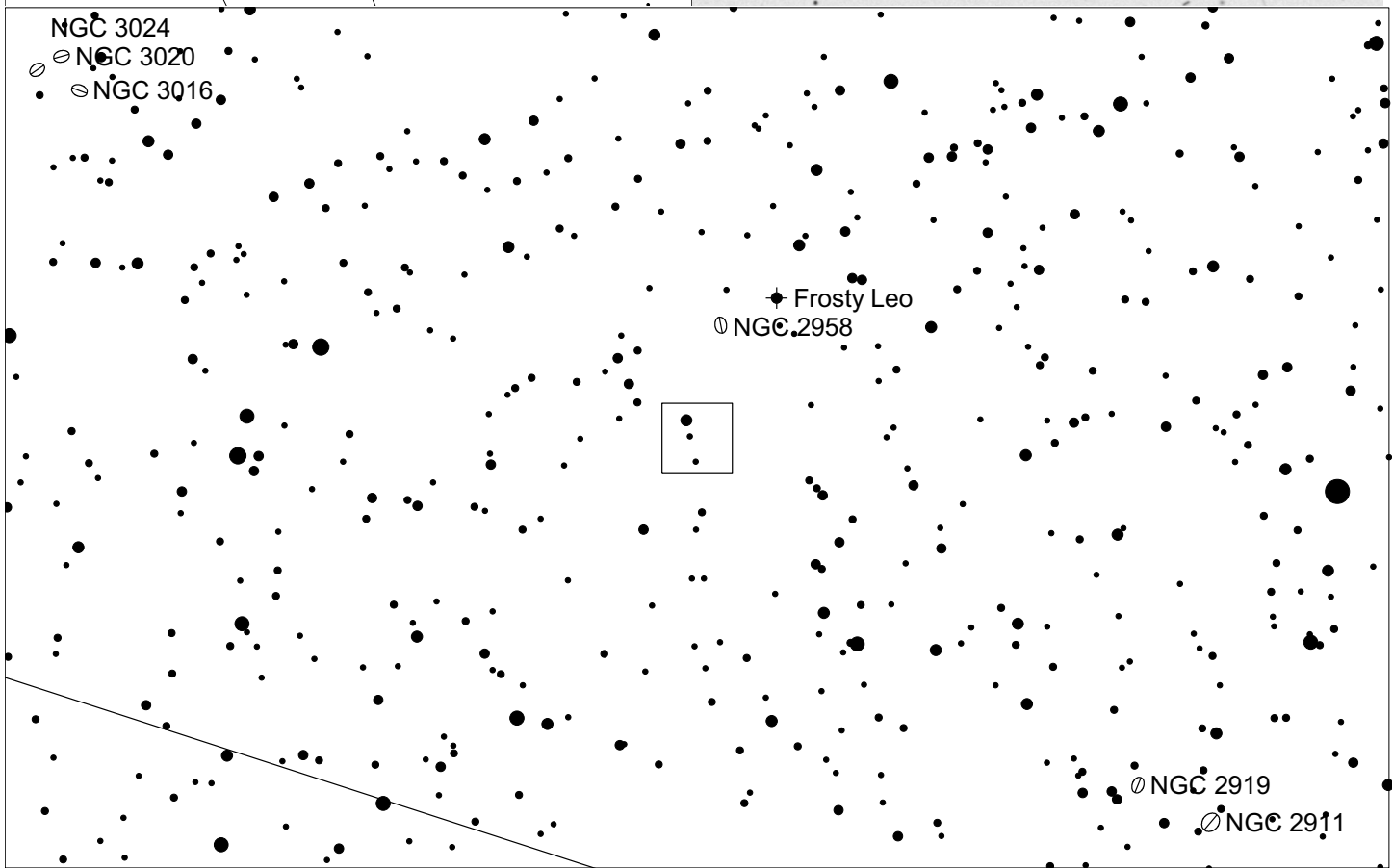
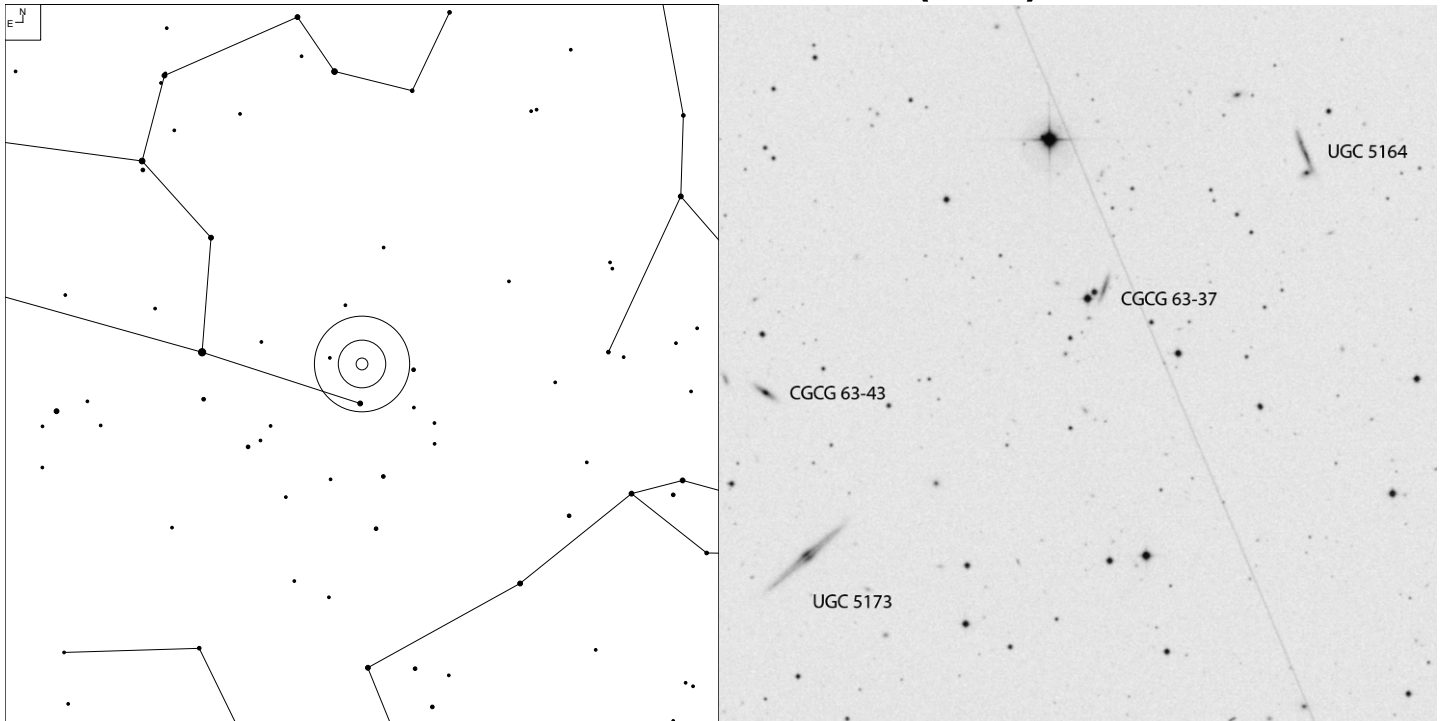
Name	RA	Dec	Mag	Size	Urano
UGC 4872	09h 15m 02.4s	+40°02'13"	15.8	1.9 x 0.1'	56R

IC 2461 (Lynx)



Name	RA	Dec	Mag	Size	Urano
IC 2461	09h 19m 57.6s	+37°11'28"	14.8p	2.7 x 0.5'	56R

UGC 5164 and 5173 (Leo)



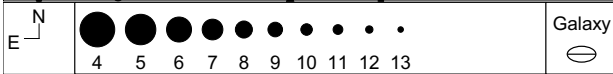
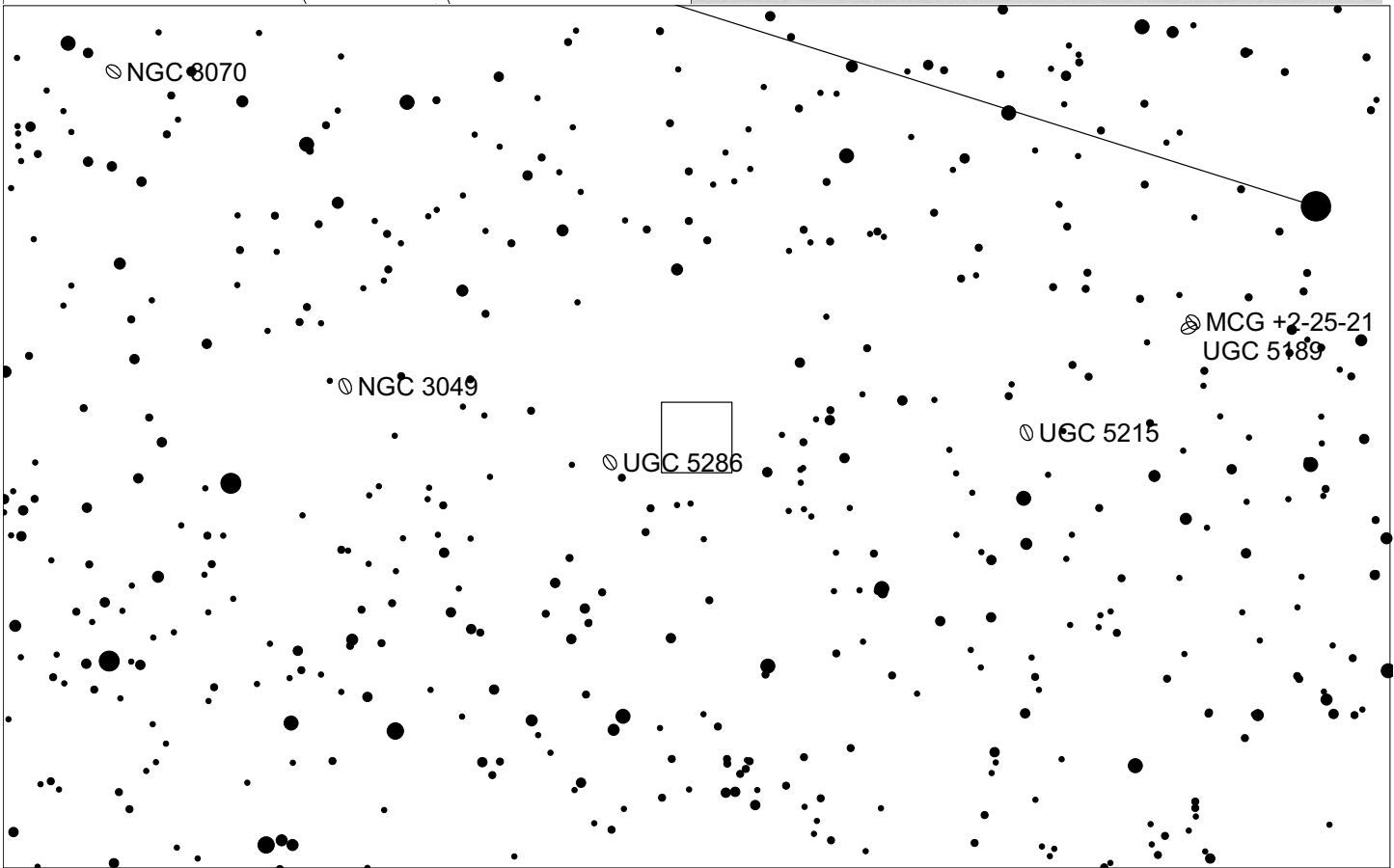
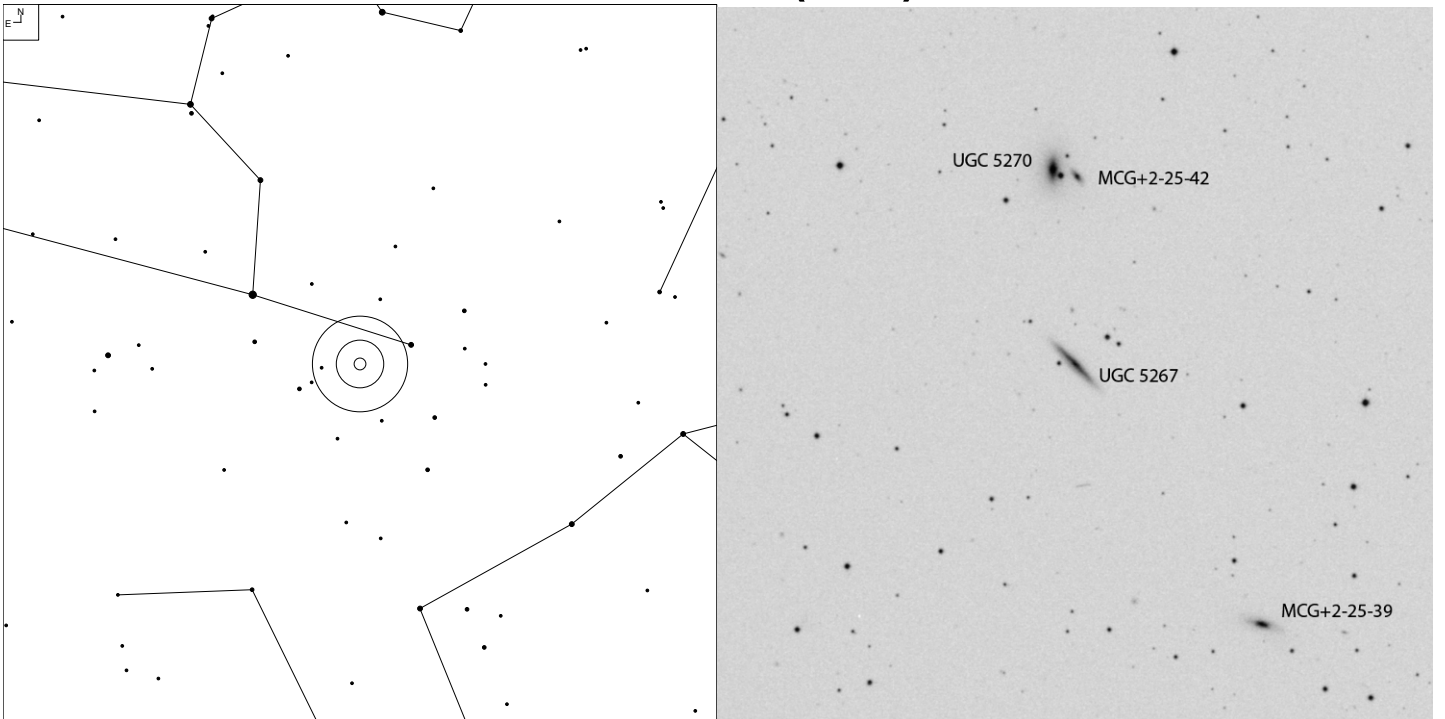
5 6 7 8 9 10 11 12

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Name	RA	Dec	Mag	Size	Urano
UGC 5164	09h 40m 49.8s	+11°33'11"	14.6	1.1 x 0.1'	93L
UGC 5173	09h 41m 32.2s	+11°24'47"	14.7p	2.3 x 0.2'	93L

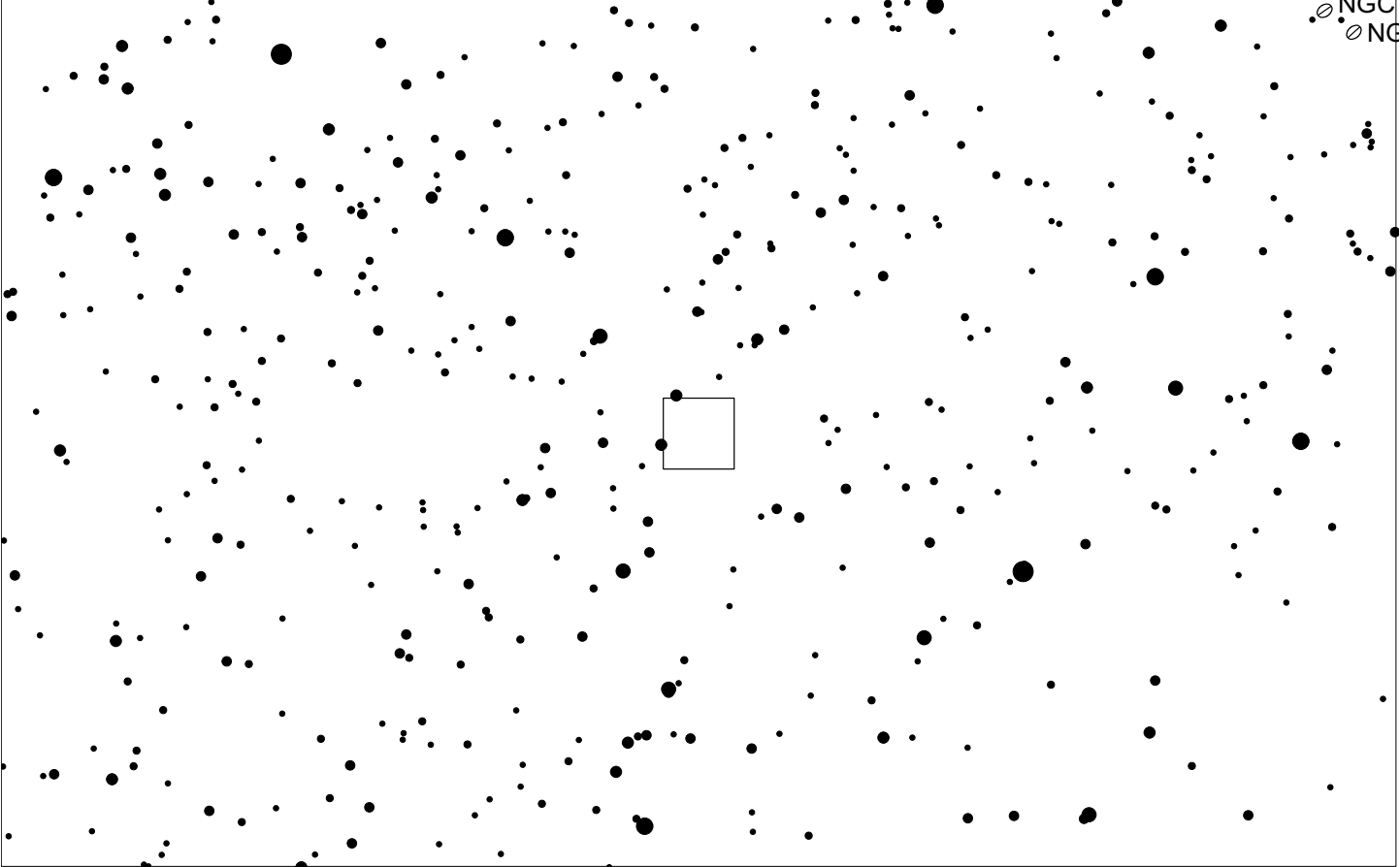
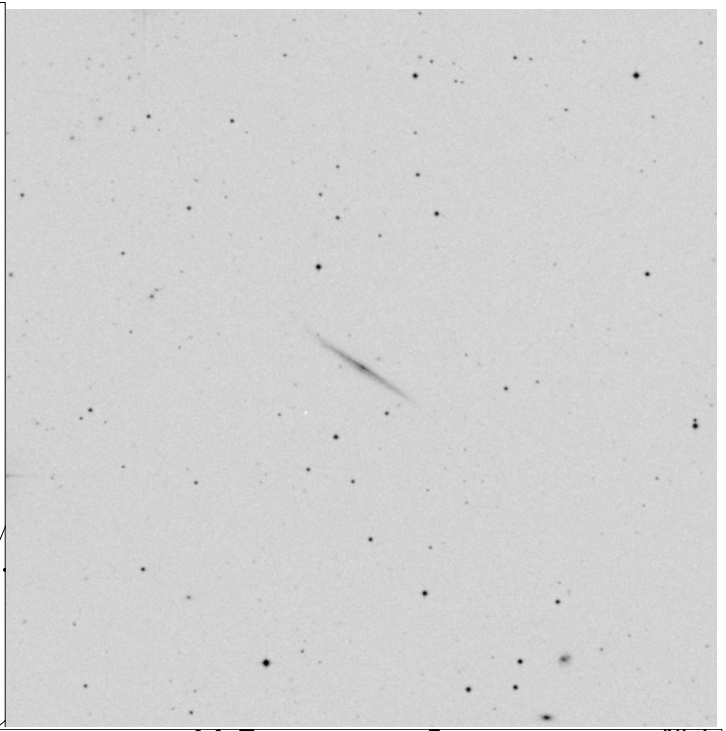
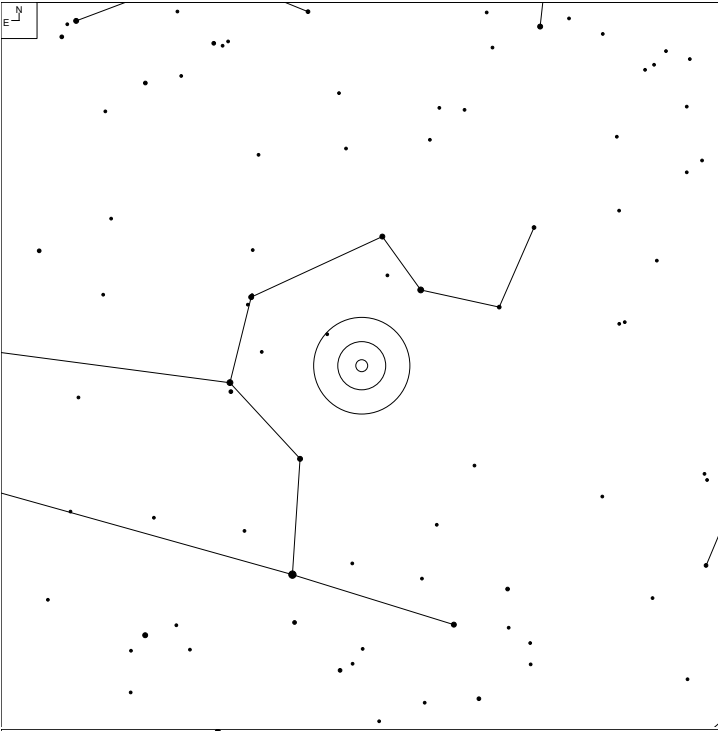
Flat Galaxies

UGC 5267 (Leo)



Name	RA	Dec	Mag	Size	Urano
UGC 5267	09h 49m 52.9s	+09°05'45"	14.9p	1.6 x 0.2'	93L

UGC 5341 (Leo)

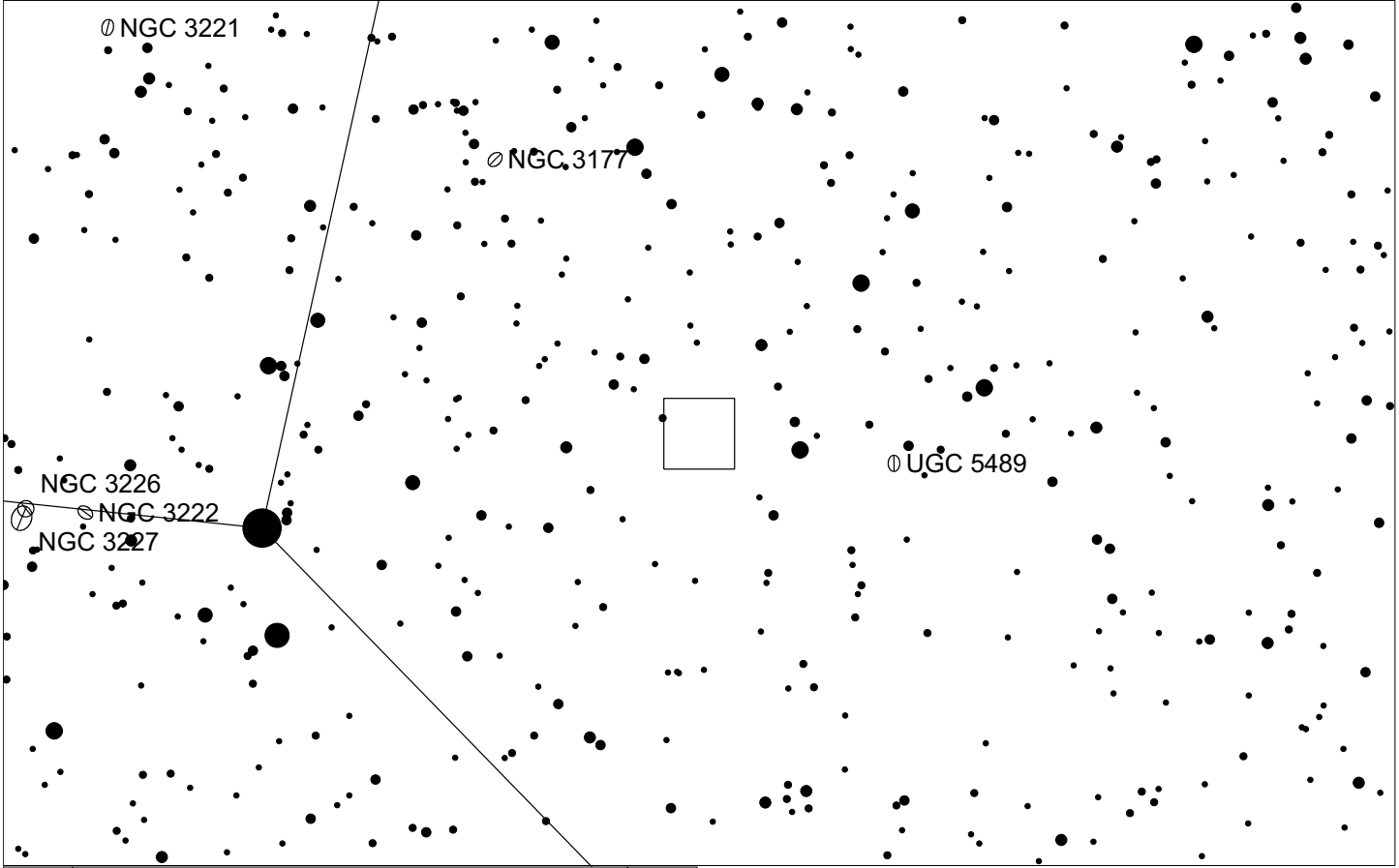
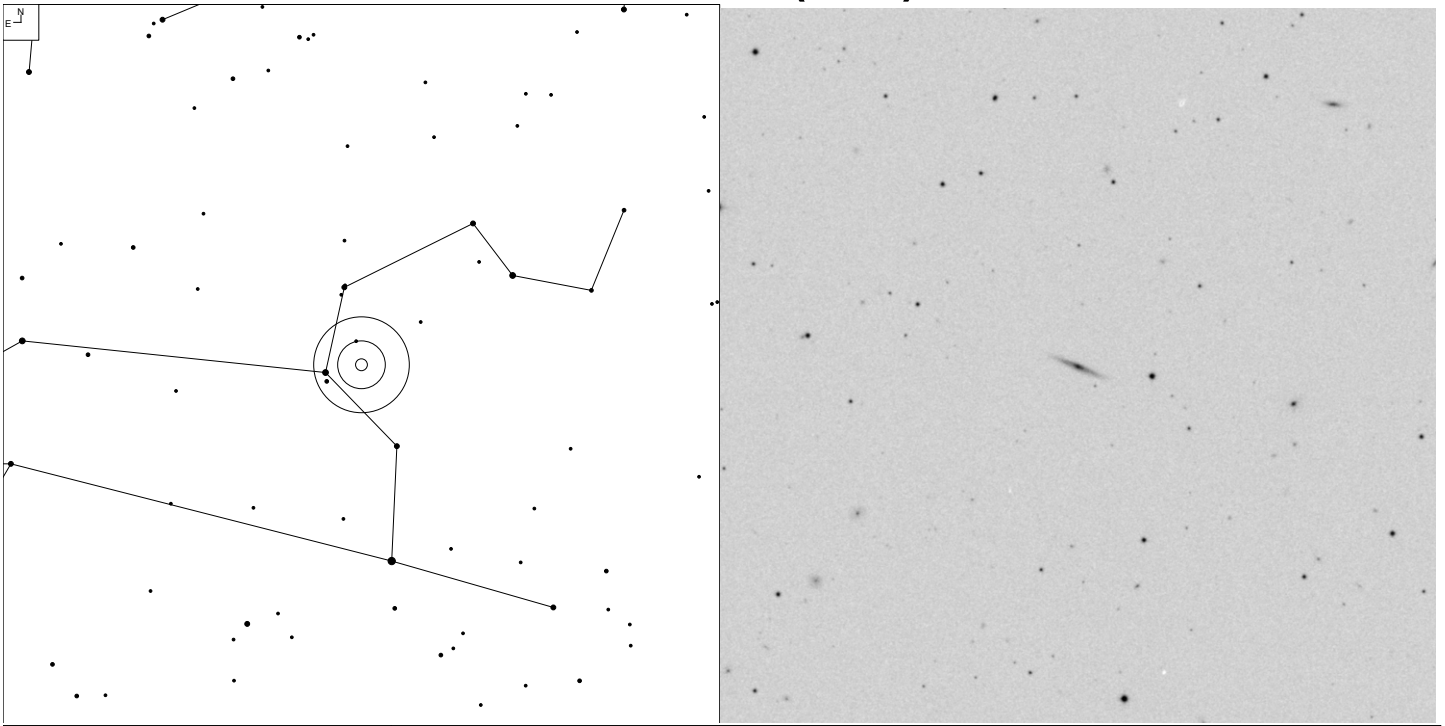


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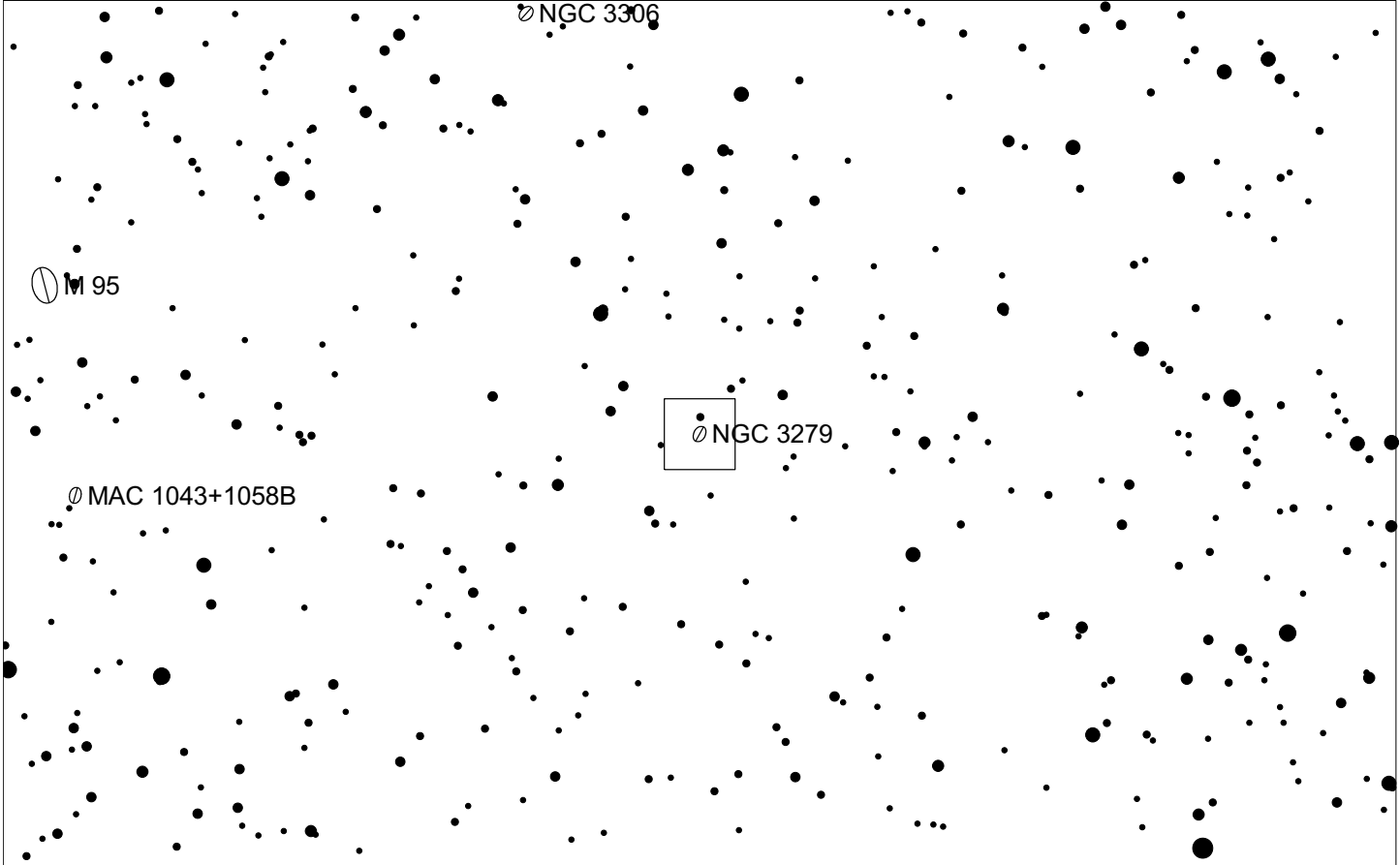
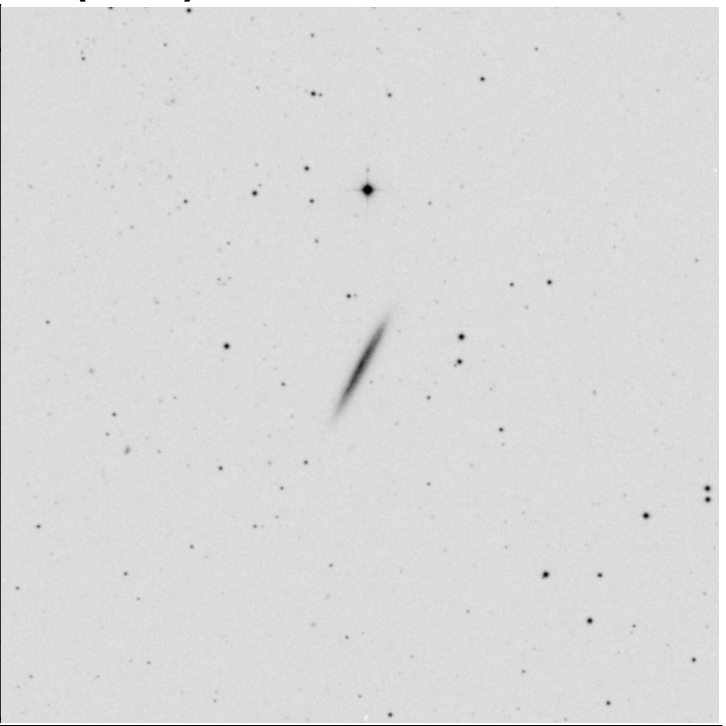
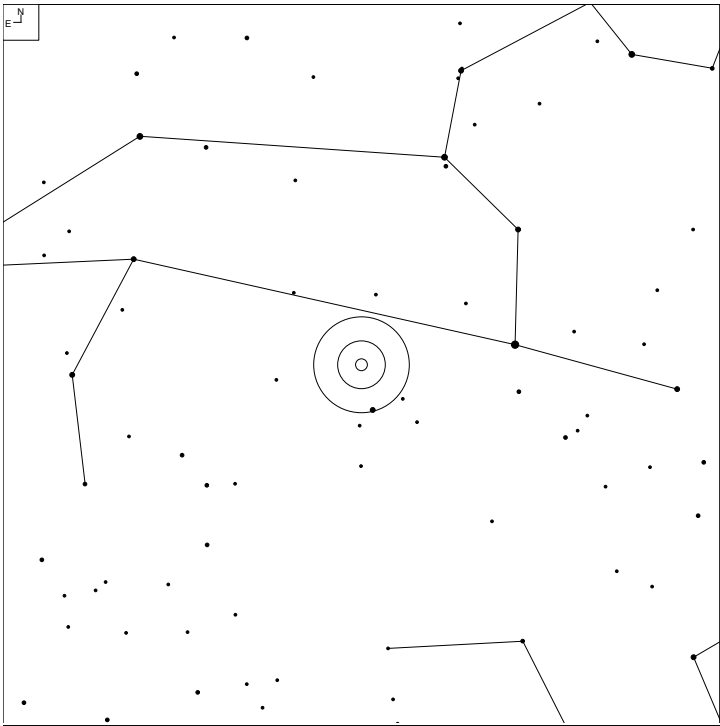
Name	RA	Dec	Mag	Size	Urano
UGC 5341	09h 56m 35.9s	+20°38'44"	15.0p	2.9 x 0.2'	74L

UGC 5509 (Leo)



Name	RA	Dec	Mag	Size	Urano
UGC 5509	10h 13m 32.3s	+20°10'32"	15.1p	1.4 x 0.2'	73R

NGC 3279 (Leo)

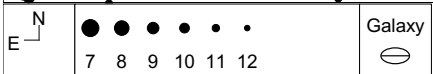
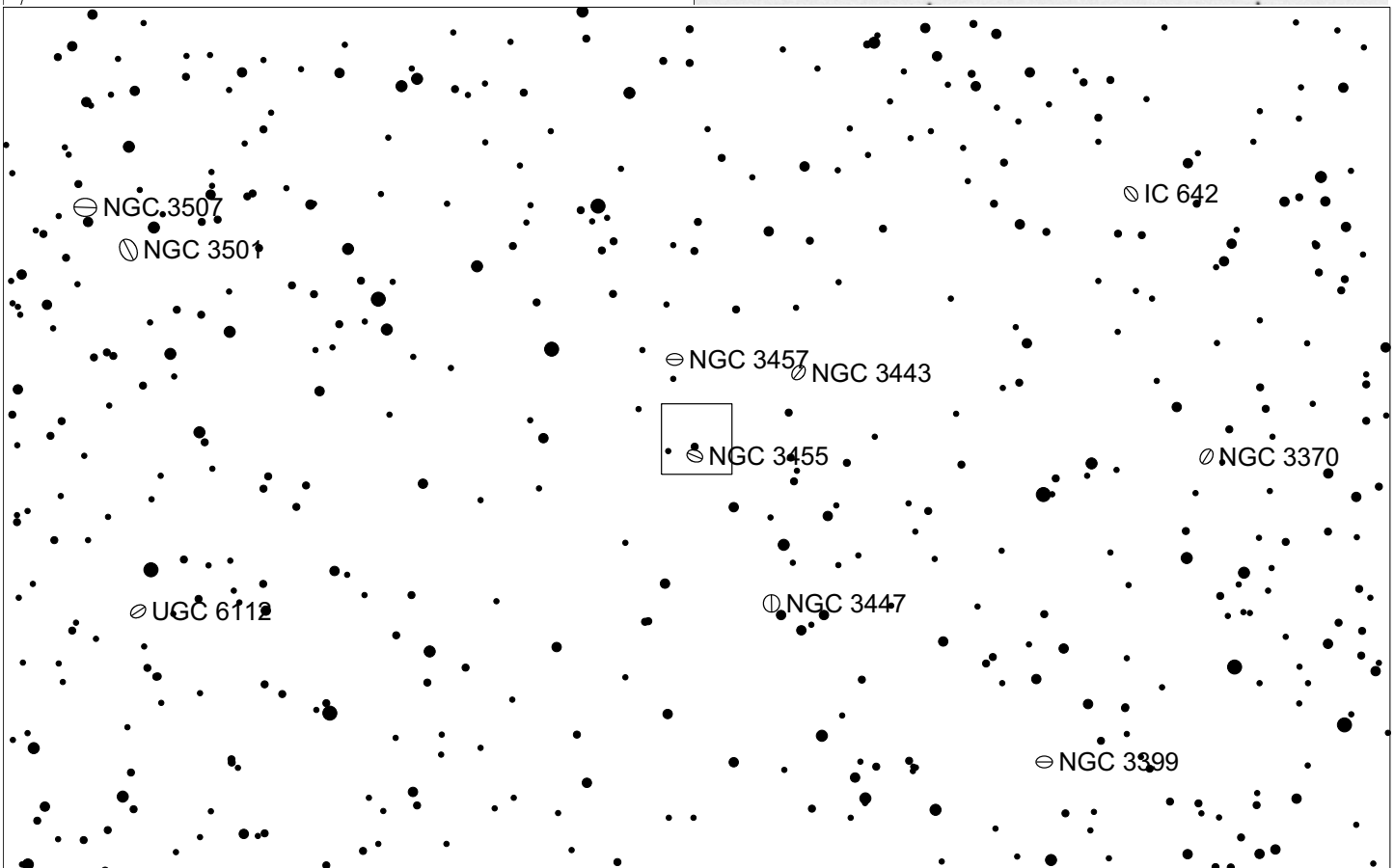
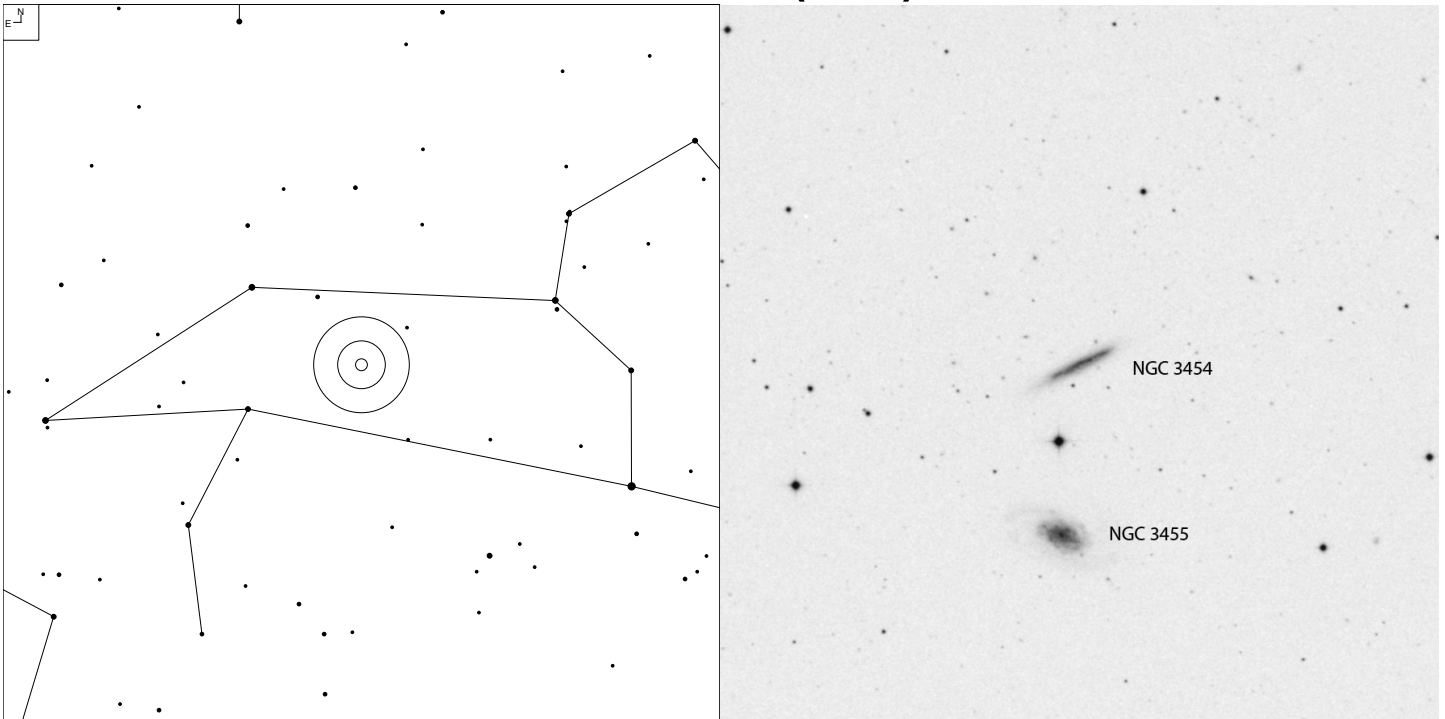


6 7 8 9 10 11 12

Galaxy

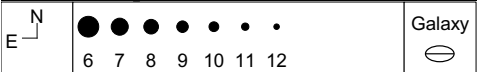
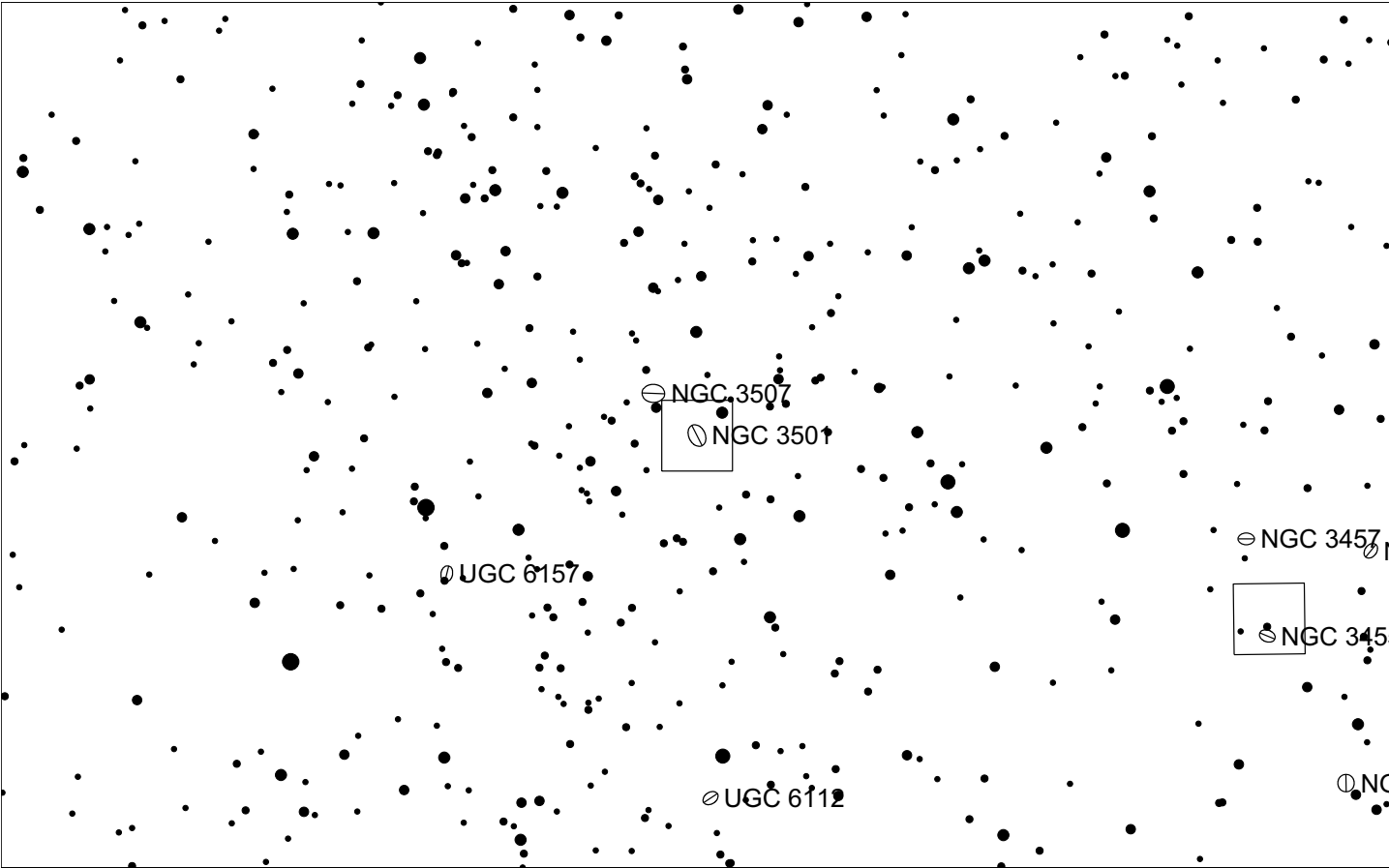
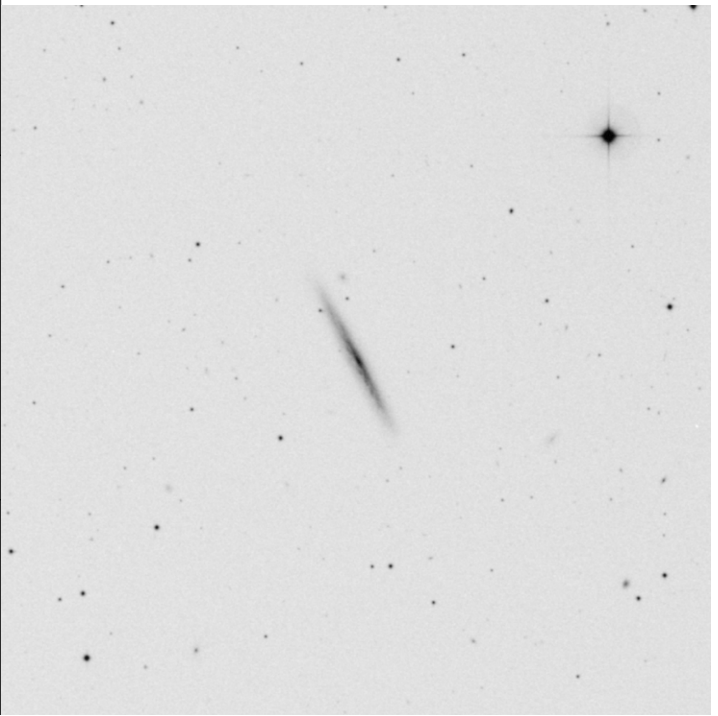
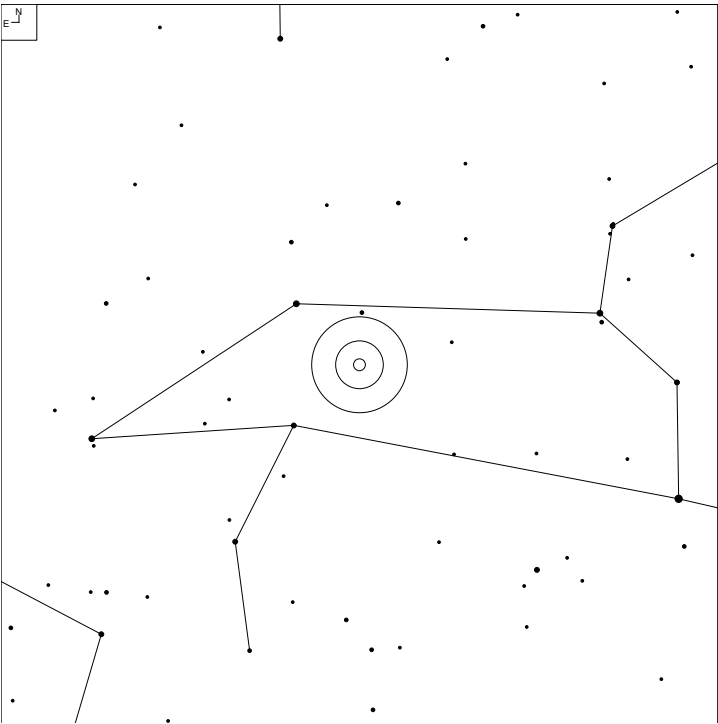
Name	RA	Dec	Mag	Size	Urano
NGC 3279	10h 34m 42.7s	+11°11'54"	13.9p	2.9 x 0.3'	92R

NGC 3454 (Leo)



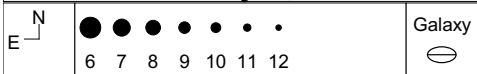
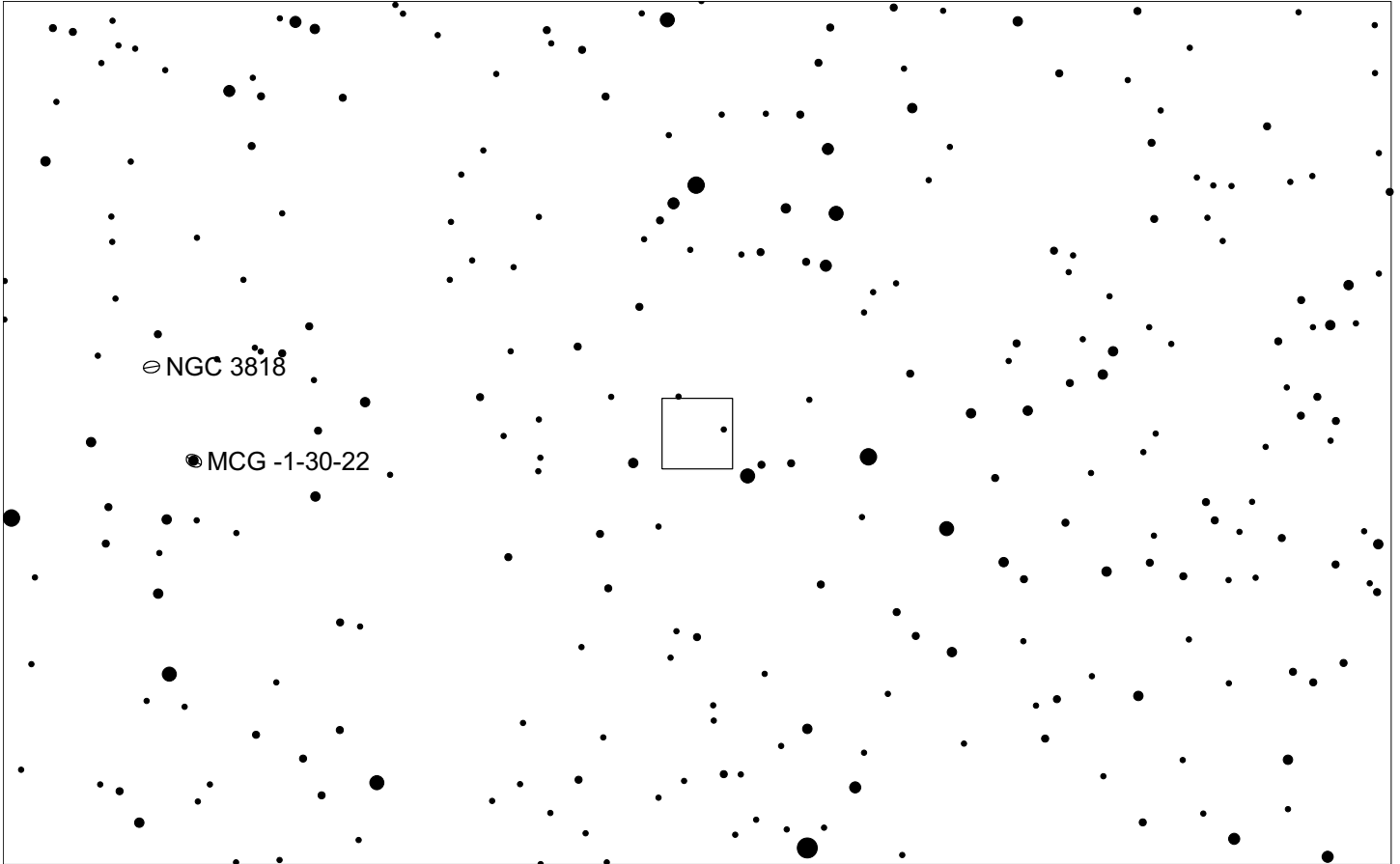
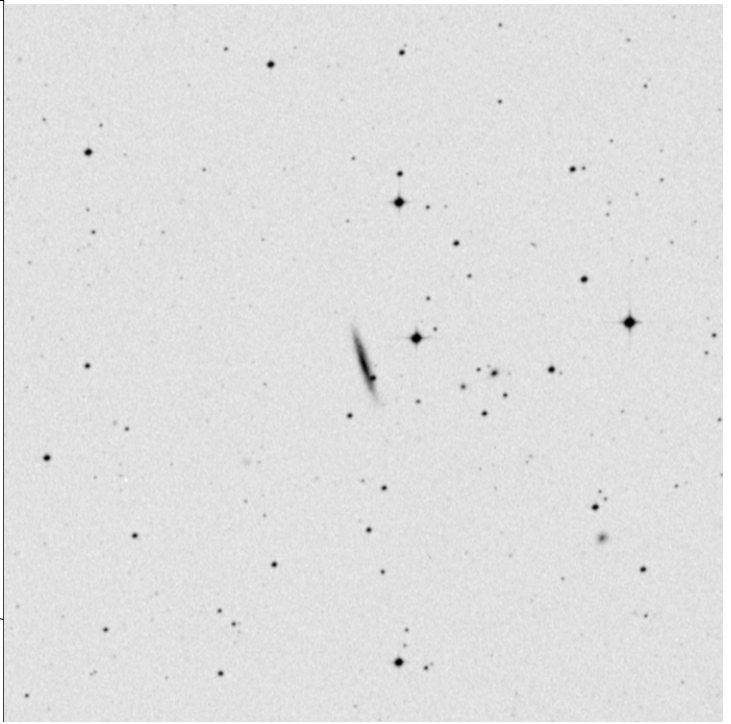
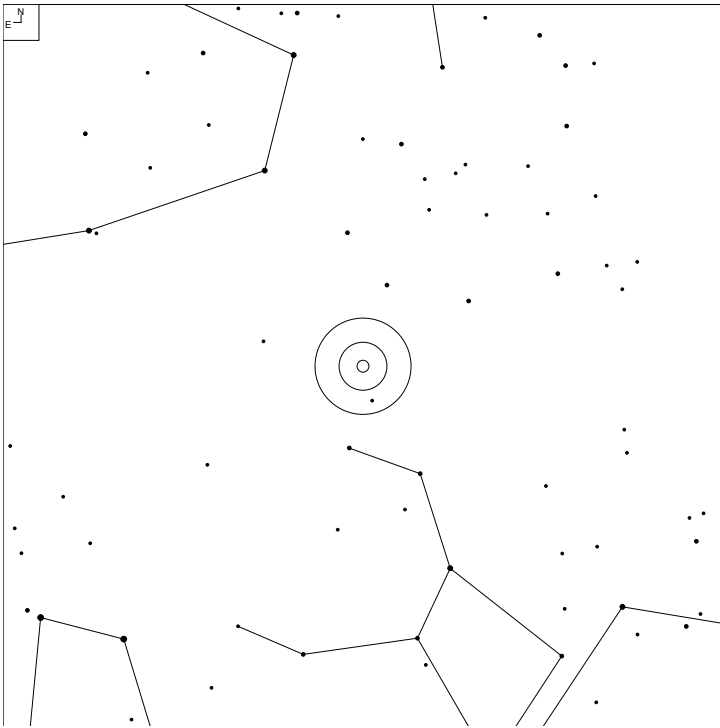
Name	RA	Dec	Mag	Size	Urano
NGC 3454	10h 54m 28.8s	+17°20'38"	14.2p	2.6 x 0.4'	92L

NGC 3501 (Leo)



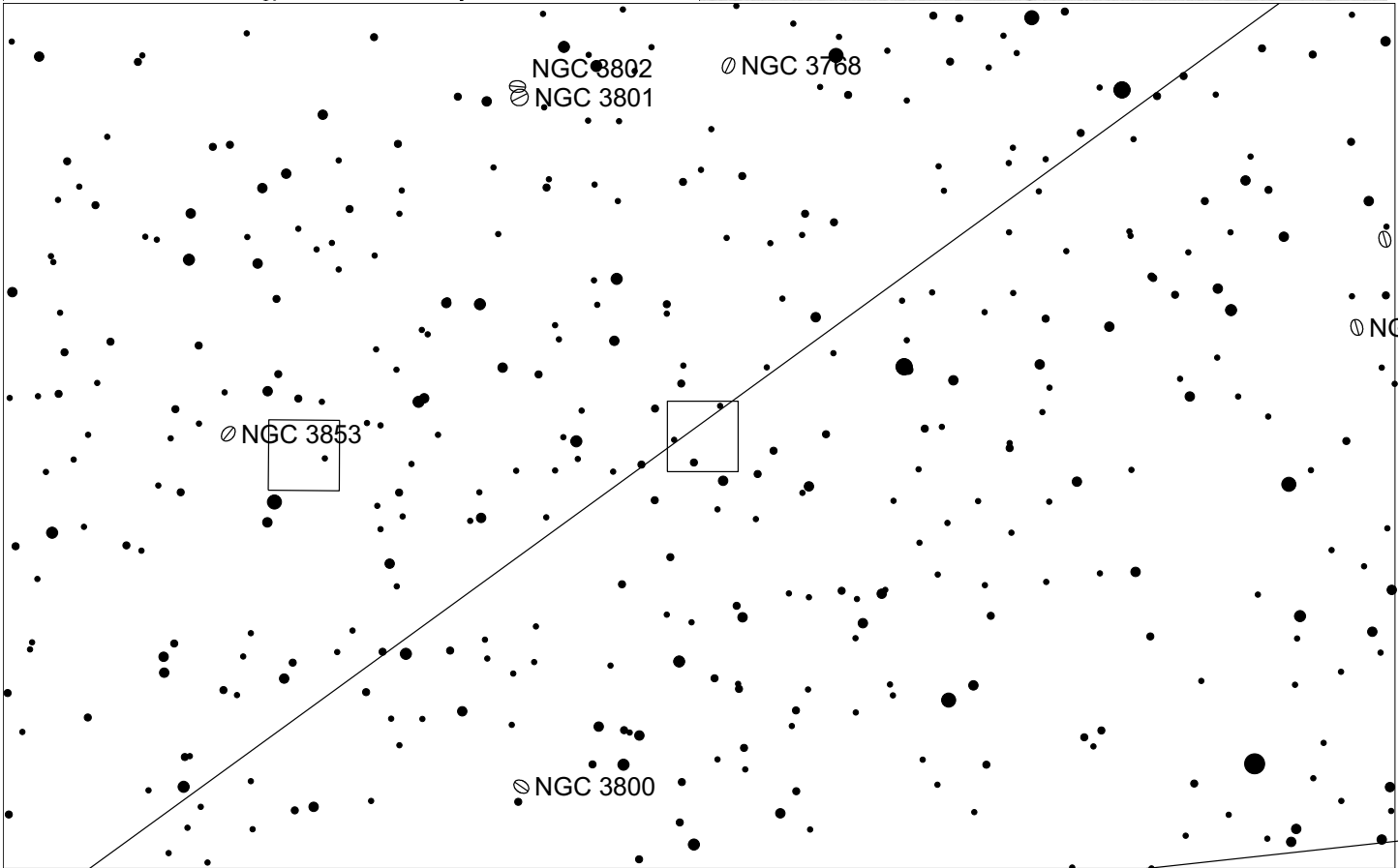
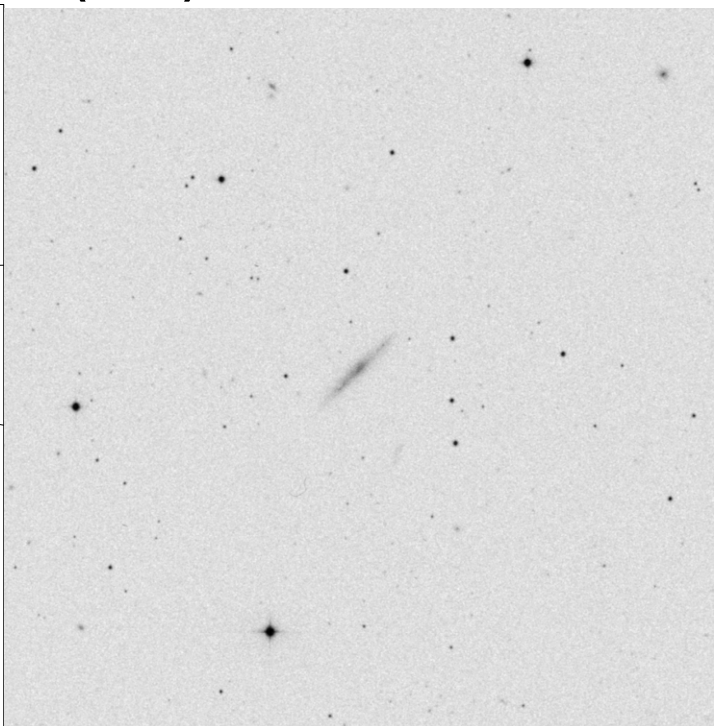
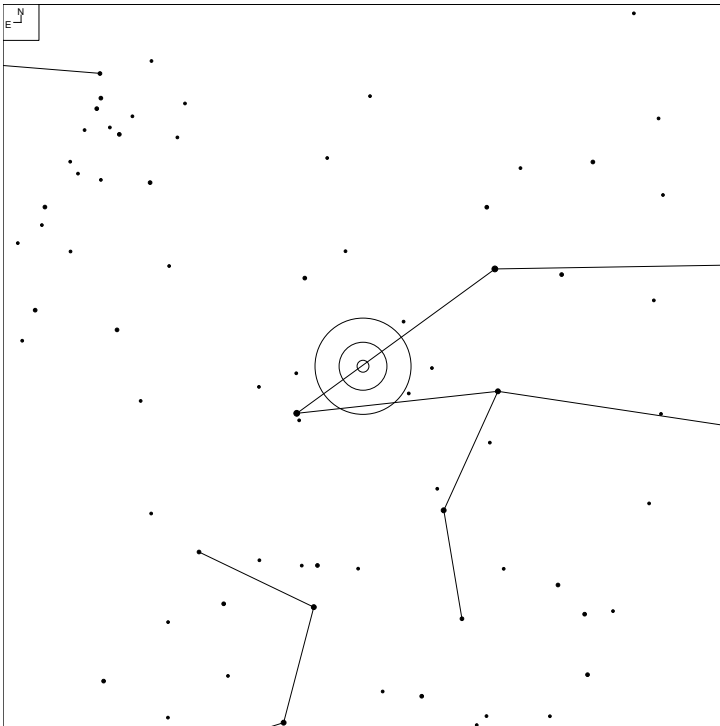
Name	RA	Dec	Mag	Size	Urano
NGC 3501	11h 02m 47.3s	+17°59'21"	13.6p	4.6 x 0.6'	73L

MCG-1-30-2 (Leo)



Name	RA	Dec	Mag	Size	Urano
MCG-1-30-2	11h 34m 20.2s	-06°23'23"	14.5	1.5 x 0.2'	132R

UGC 6594 (Leo)

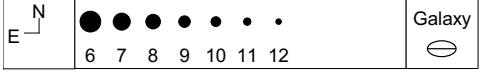
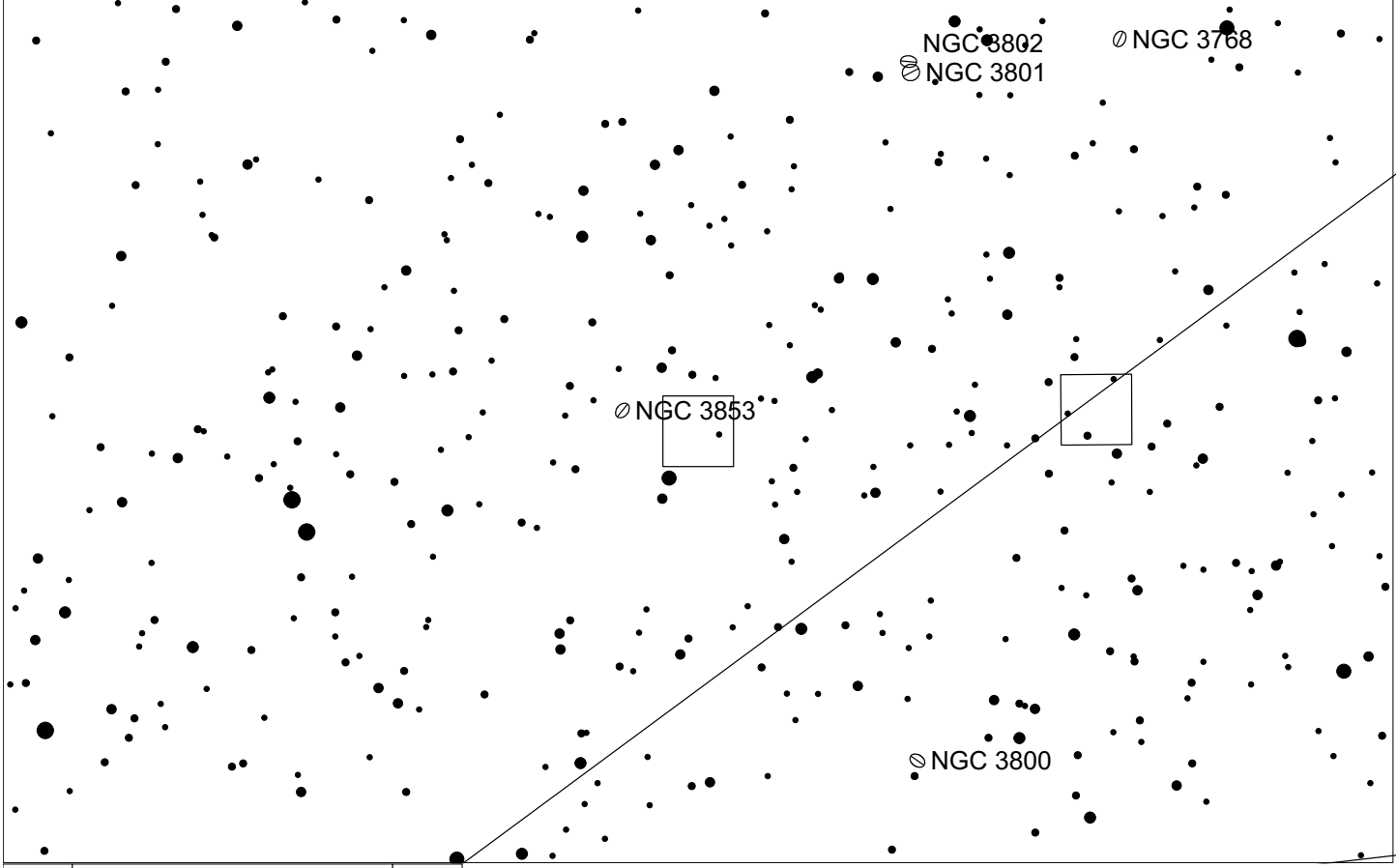
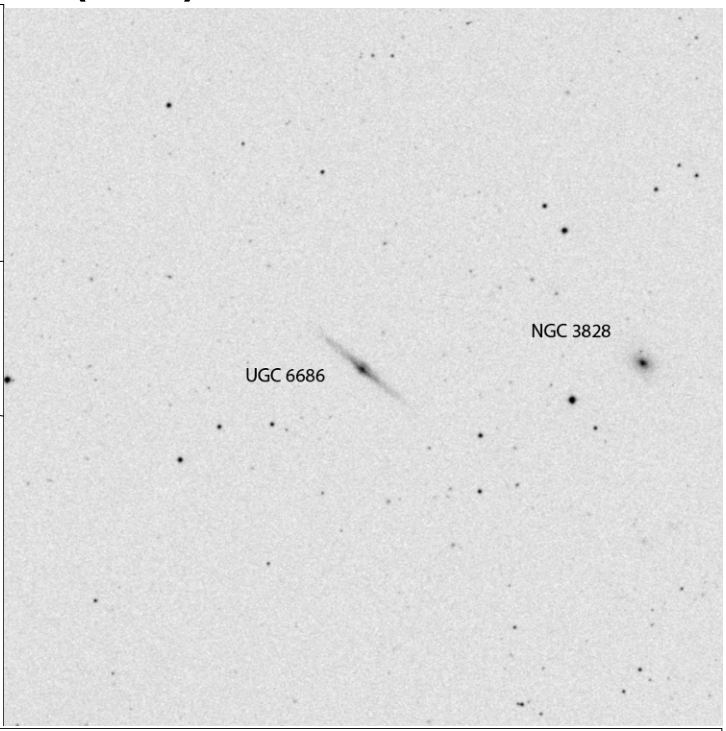
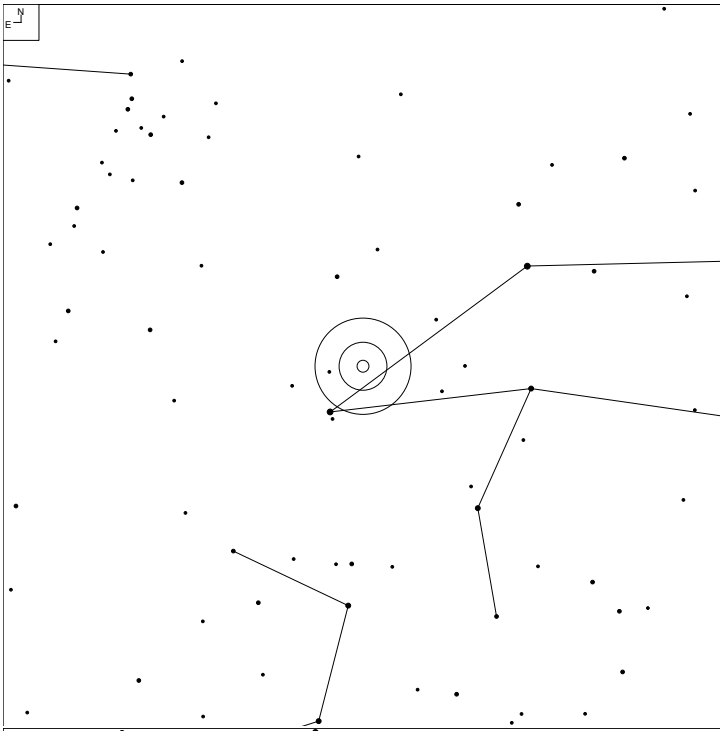


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Galaxy

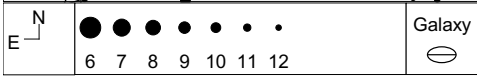
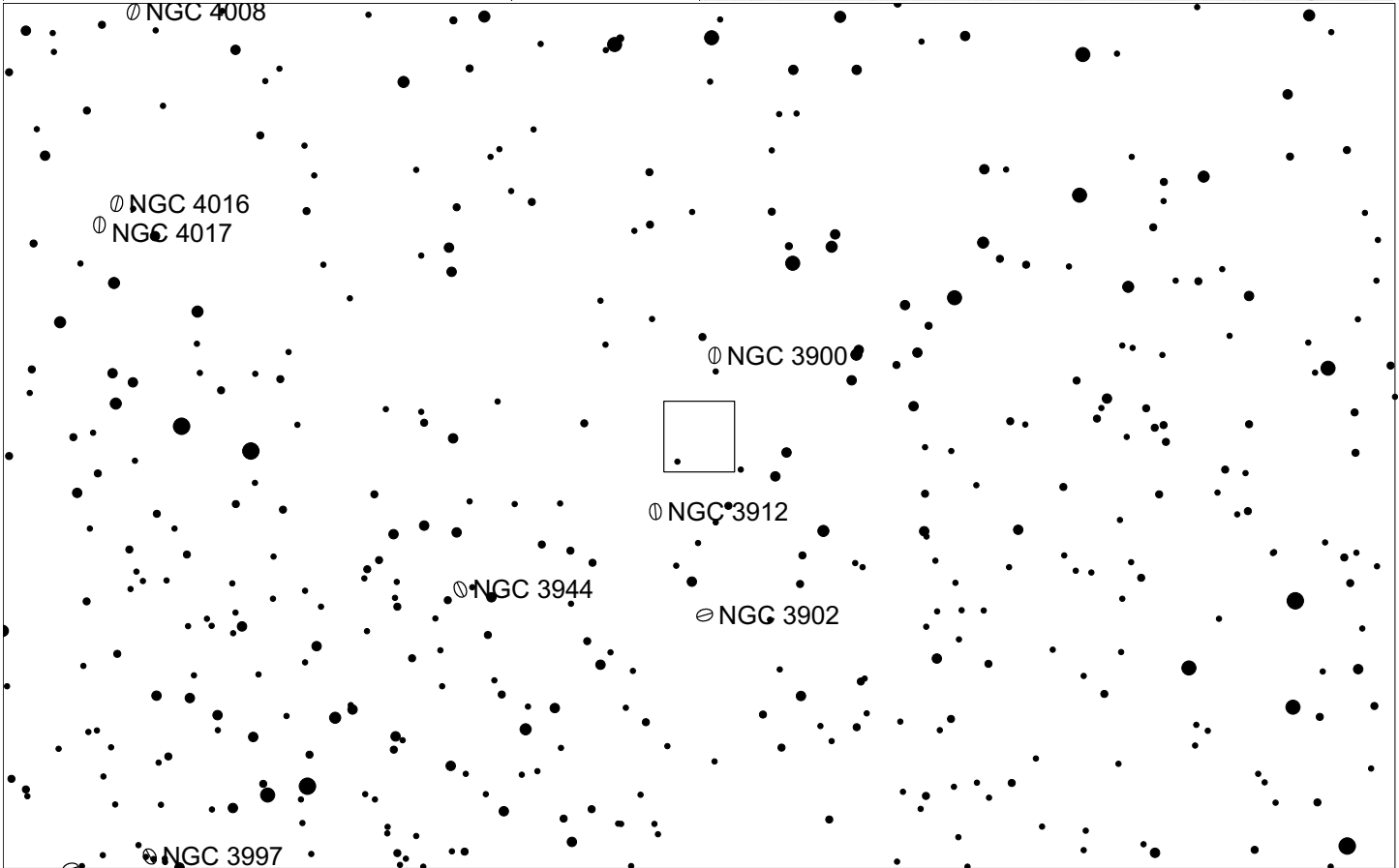
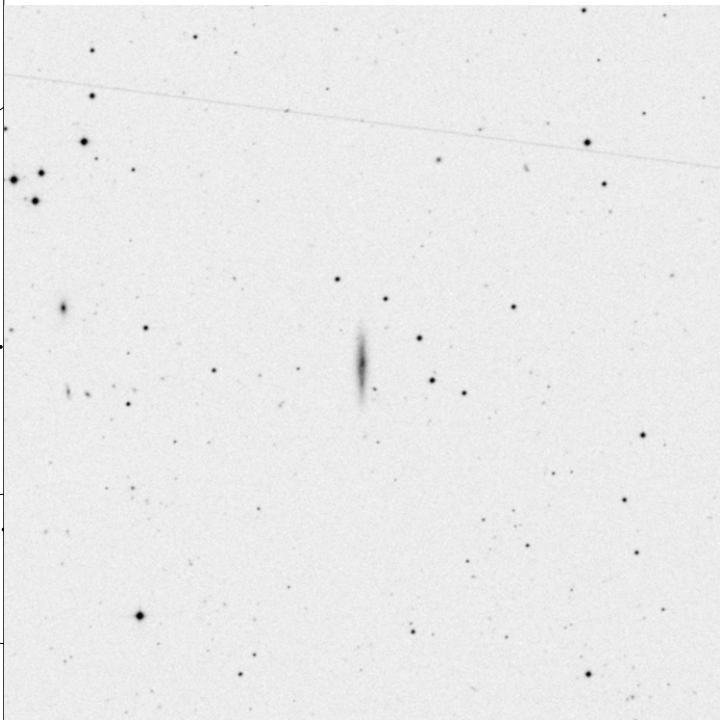
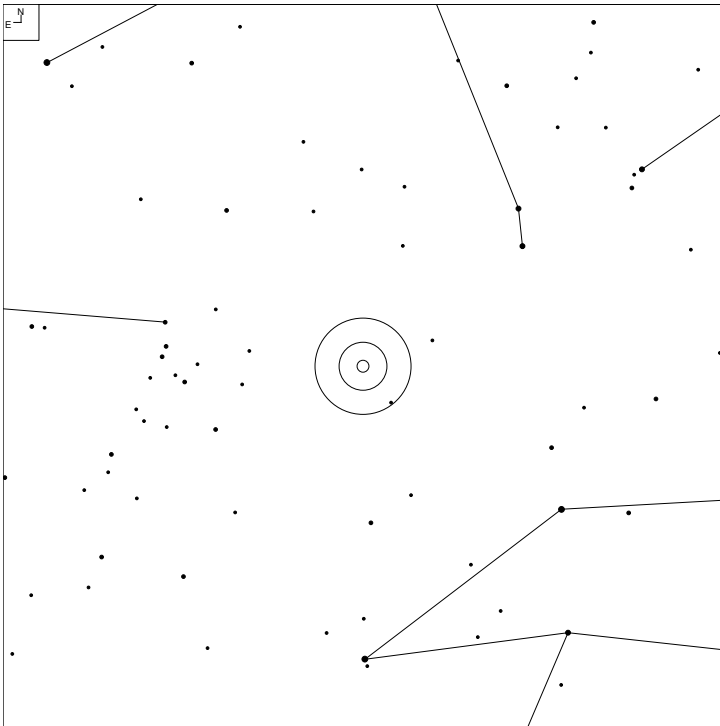
Name	RA	Dec	Mag	Size	Urano
UGC 6594	11h 37m 38.4s	+16°33'18"	14.4p	2.5 x 0.3'	91R

UGC 6686 (Leo)



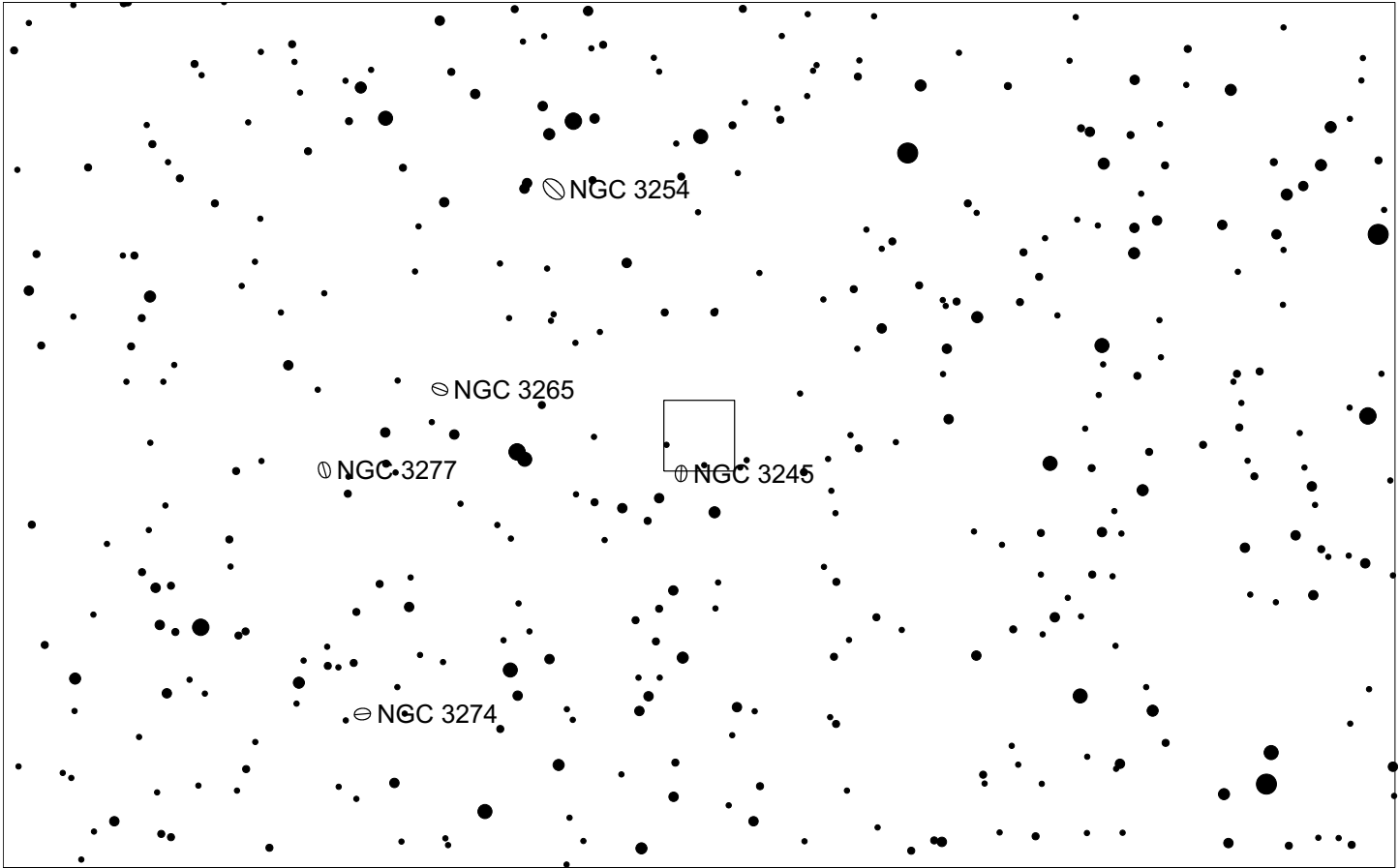
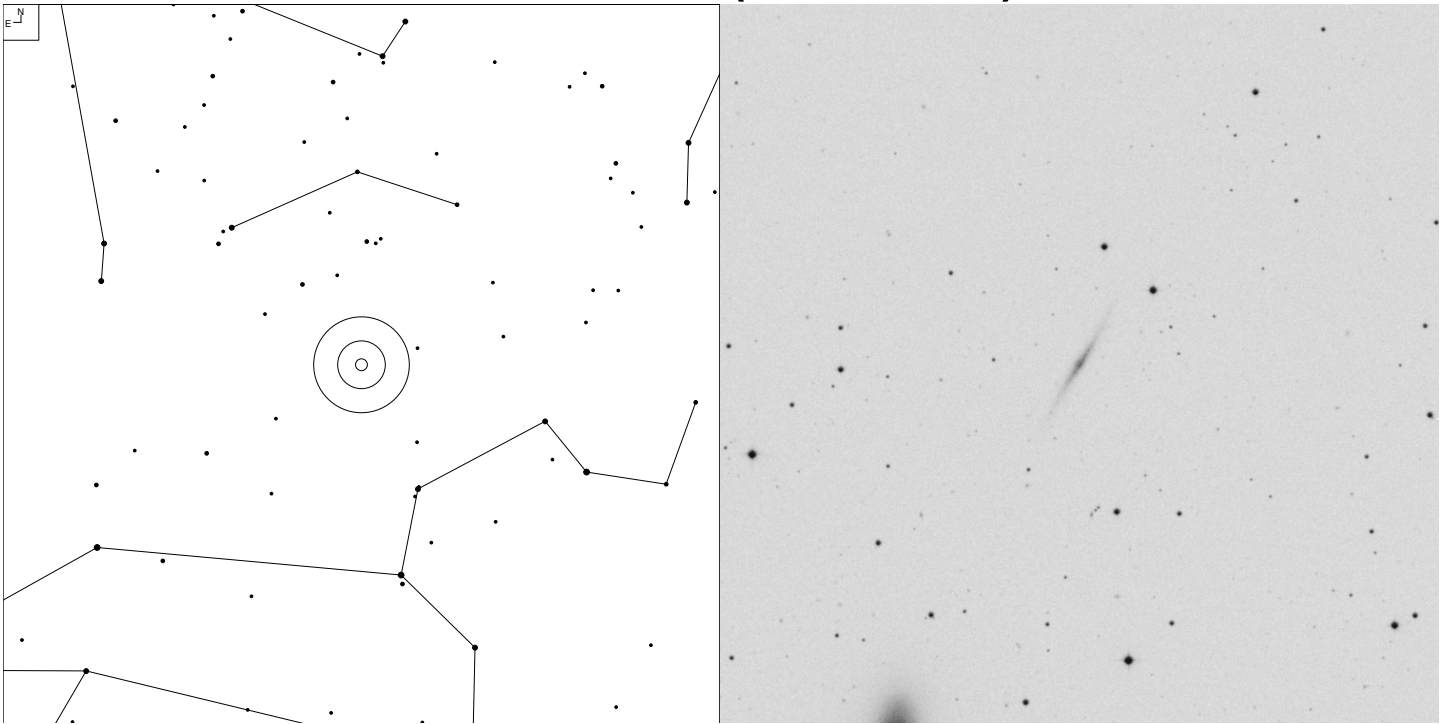
Name	RA	Dec	Mag	Size	Urano
UGC 6686	11h 43m 21.6s	+16°29'06"	15.0b	2.6 x 0.3'	91R

UGC 6791 (Leo)



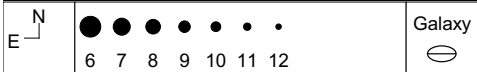
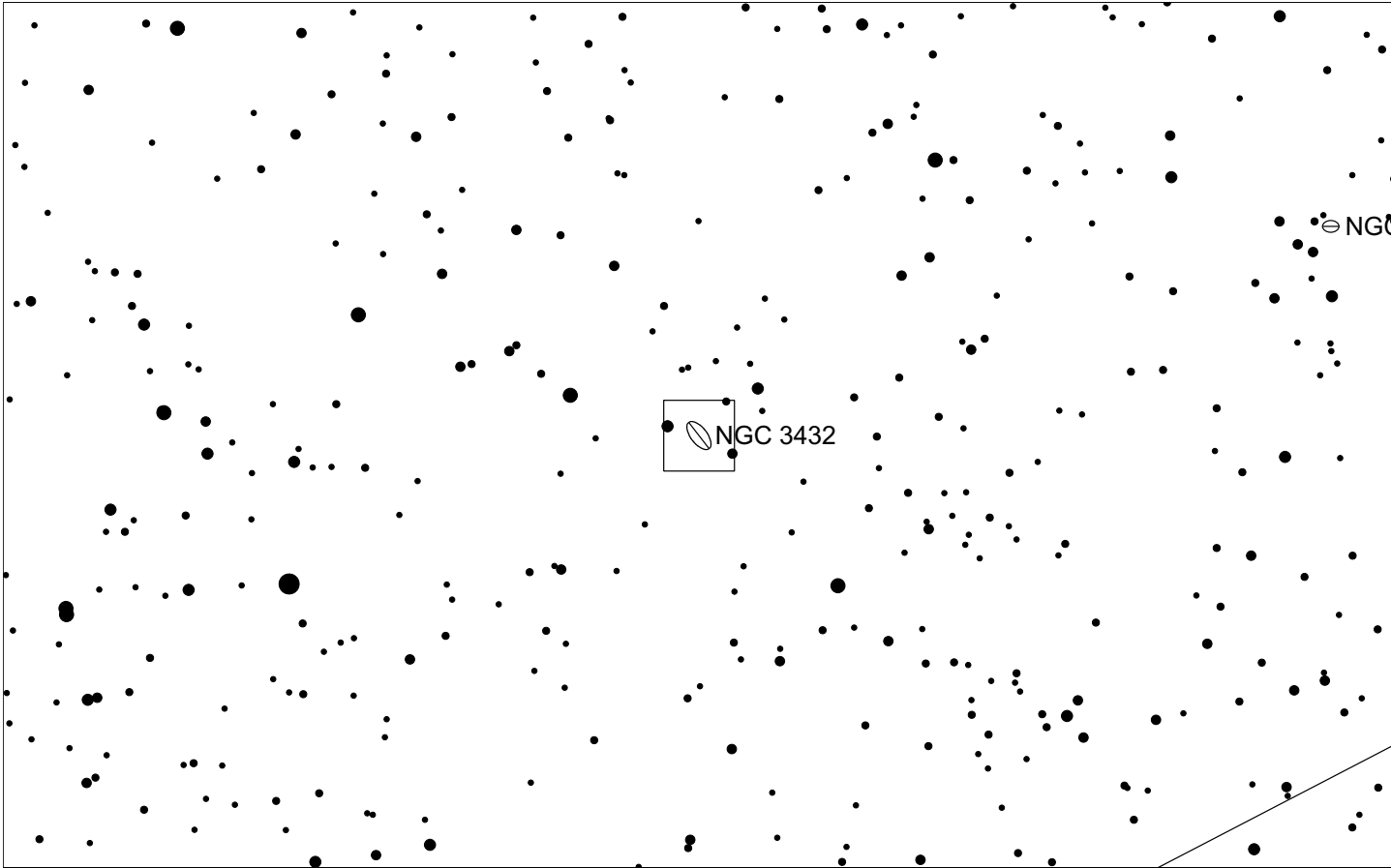
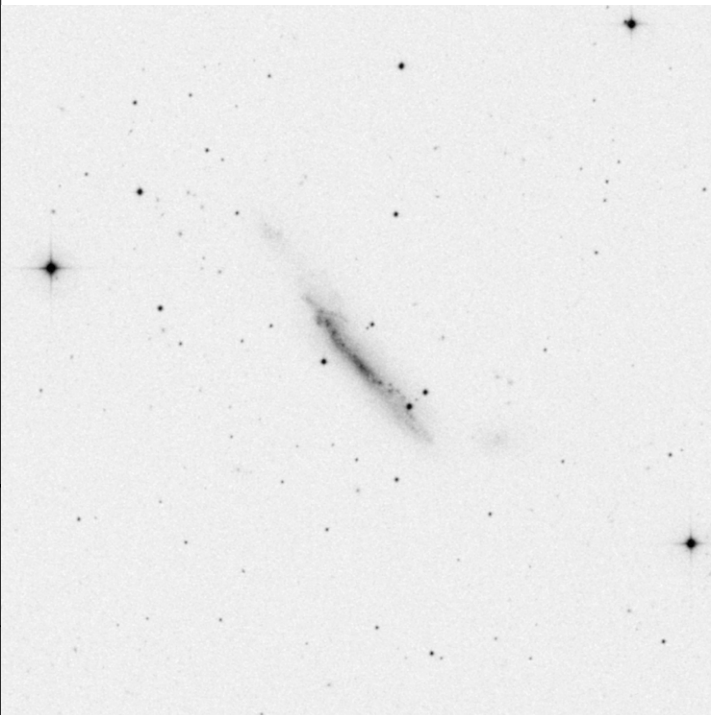
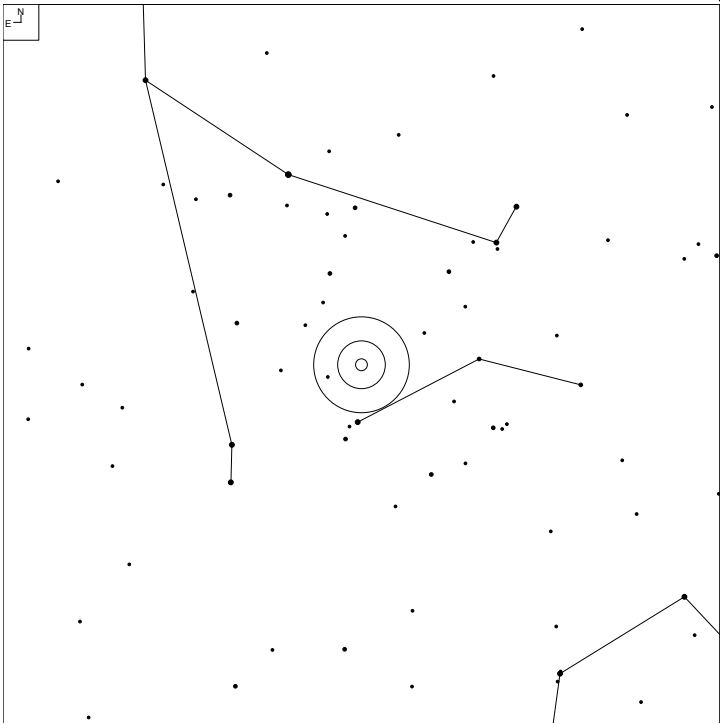
Name	RA	Dec	Mag	Size	Urano
UGC 6791	11h 49m 23.8s	+26°44'27"	15.0p	1.9 x 0.4'	72R

NGC 3245A (Leo Minor)



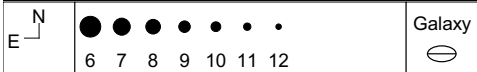
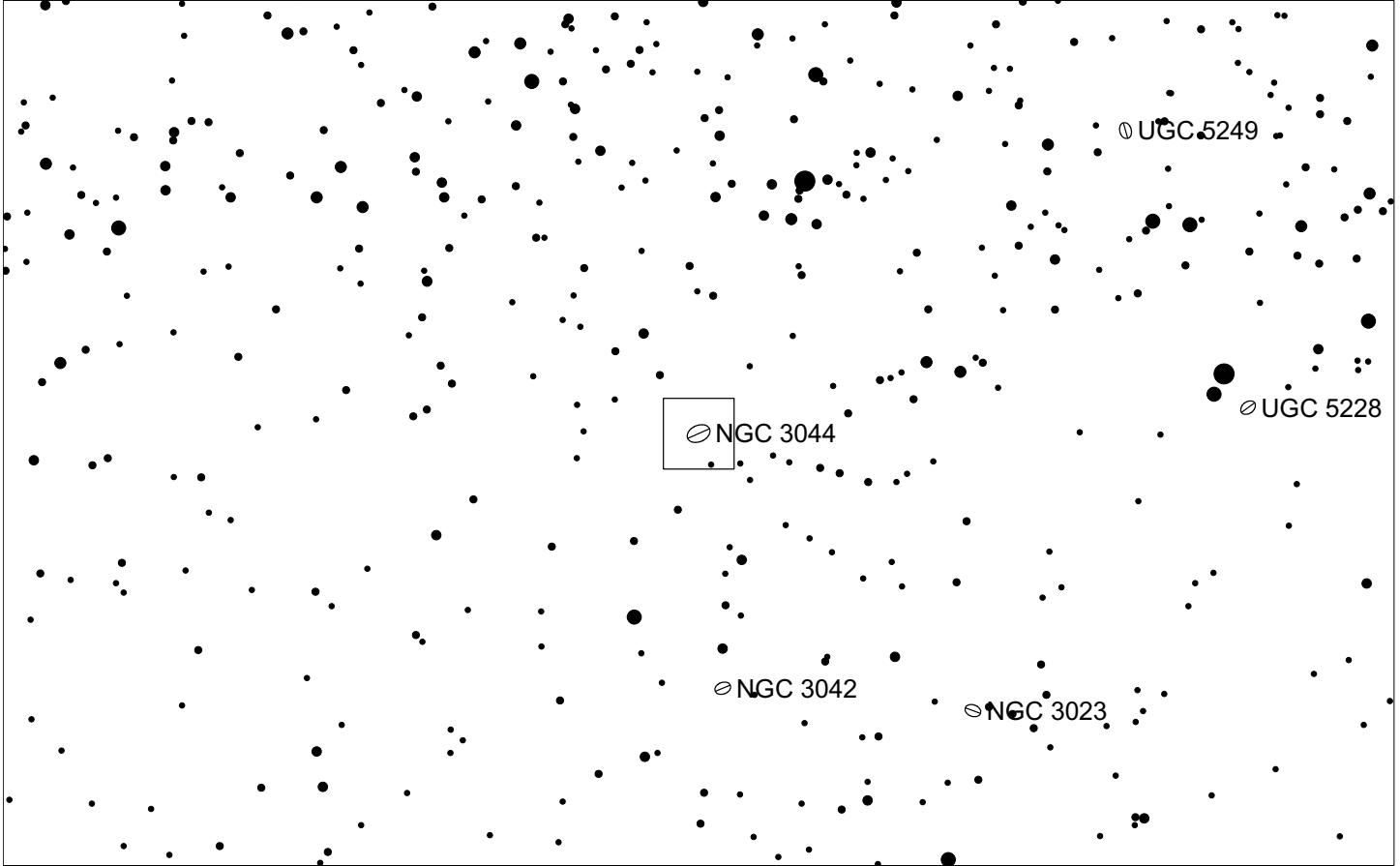
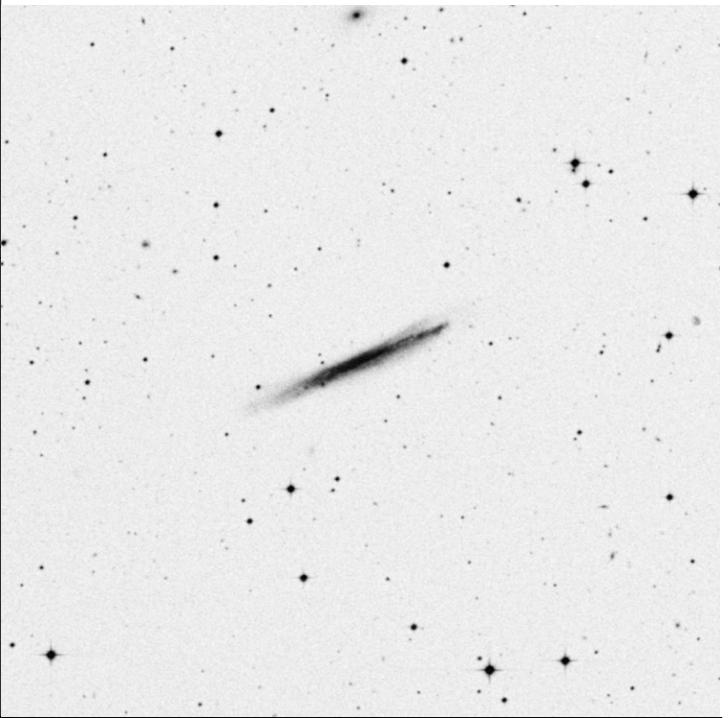
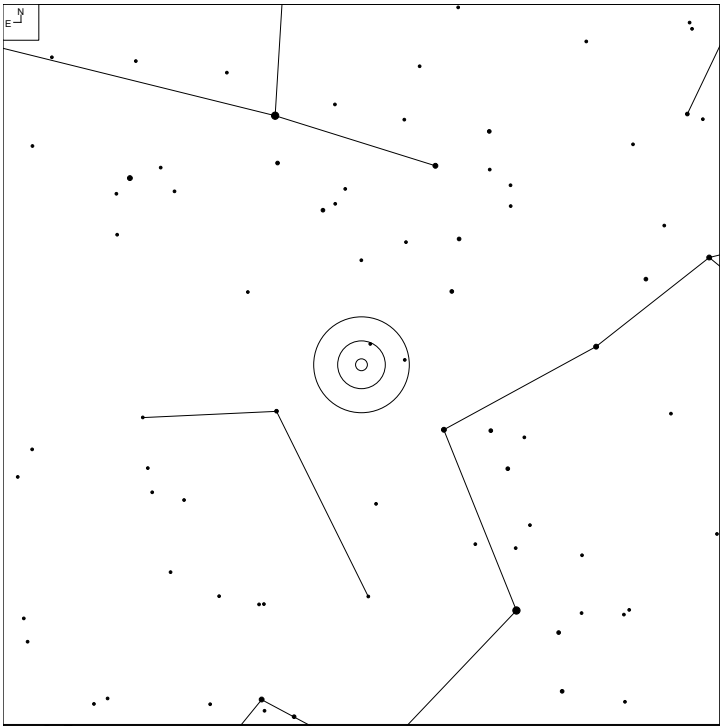
Name	RA	Dec	Mag	Size	Urano
NGC 3245A	10h 27m 01.1s	+28°38'22"	14.9p	4.2 x 0.4'	73R

NGC 3432 (Leo Minor)



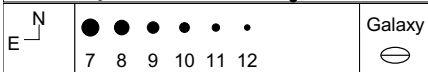
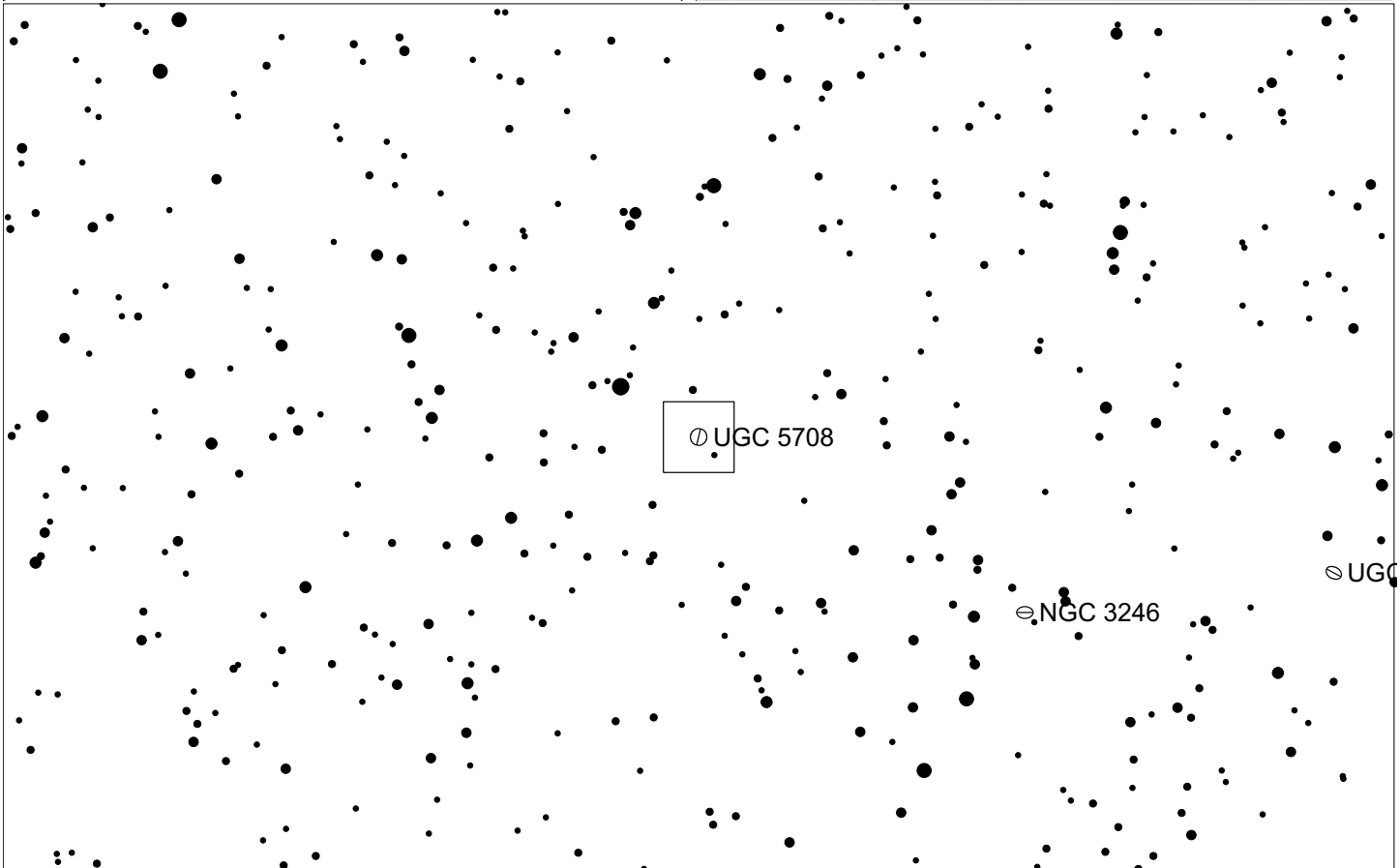
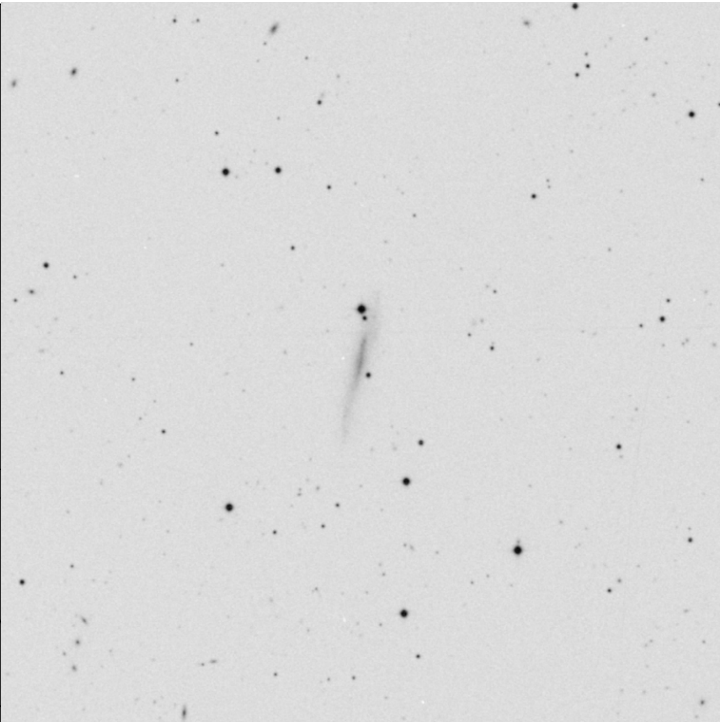
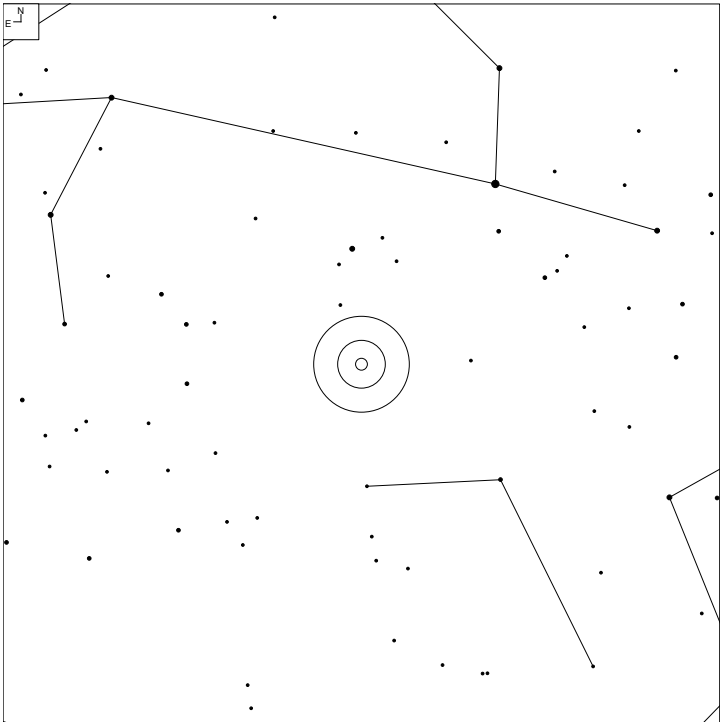
Name	RA	Dec	Mag	Size	Urano
NGC 3432	10h 52m 31.0s	+36°37'12"	11.7b	6.8 x 1.4'	55L

NGC 3044 (Sextans)



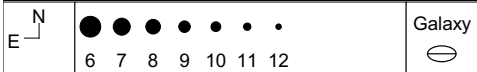
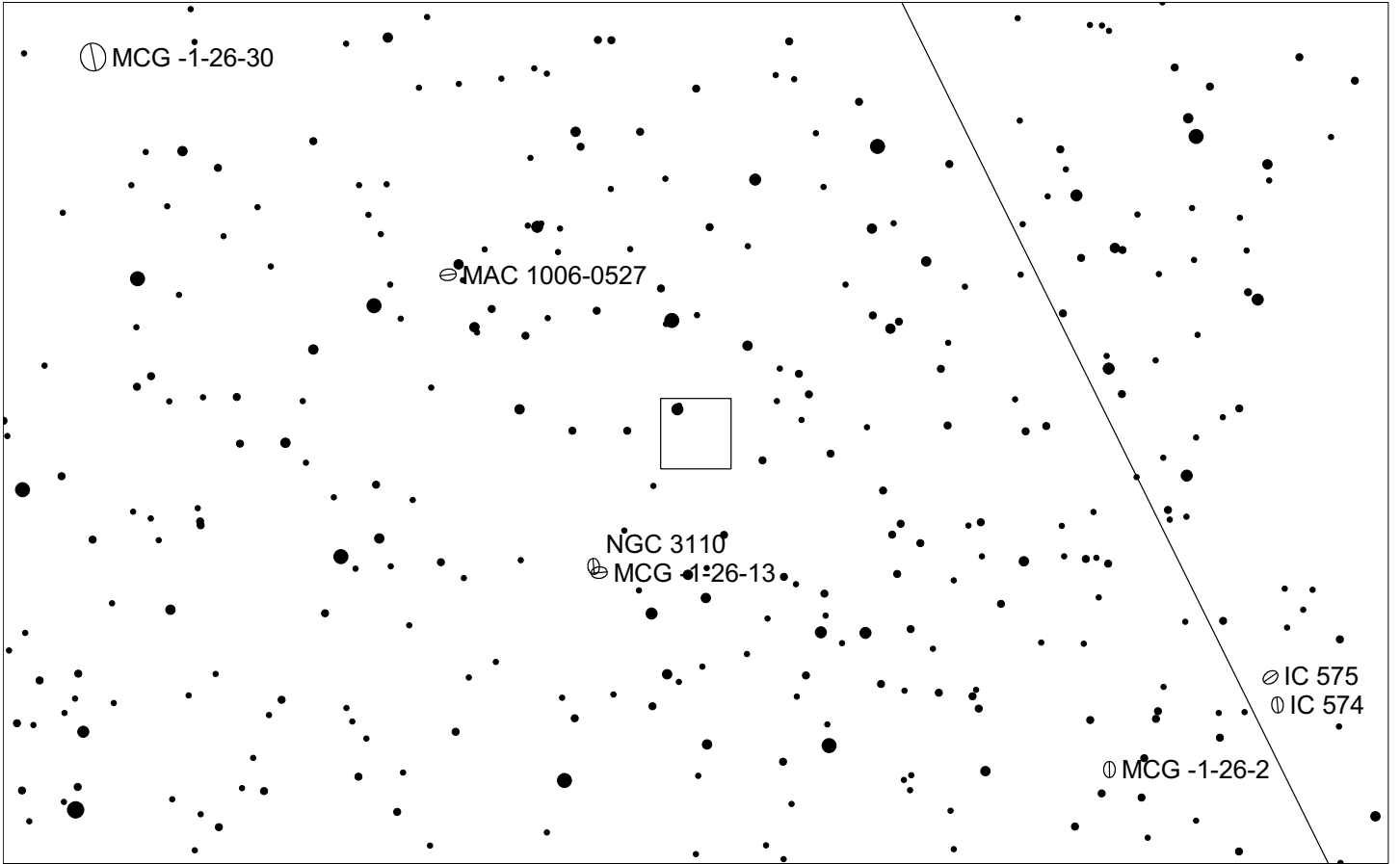
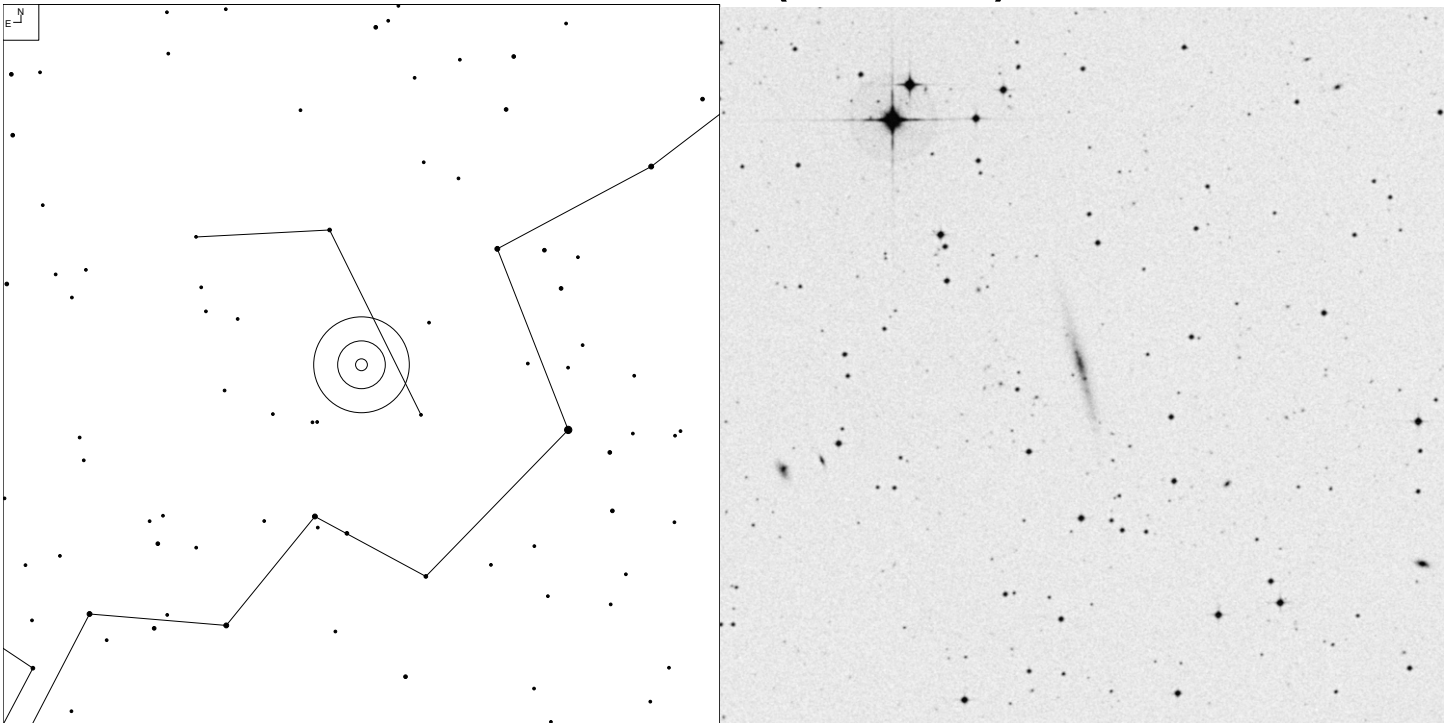
Name	RA	Dec	Mag	Size	Urano
NGC 3044	09h 53m 40.5s	+01°34'45"	12.5b	4.9 x 0.7'	113L

UGC 5708 (Sextans)



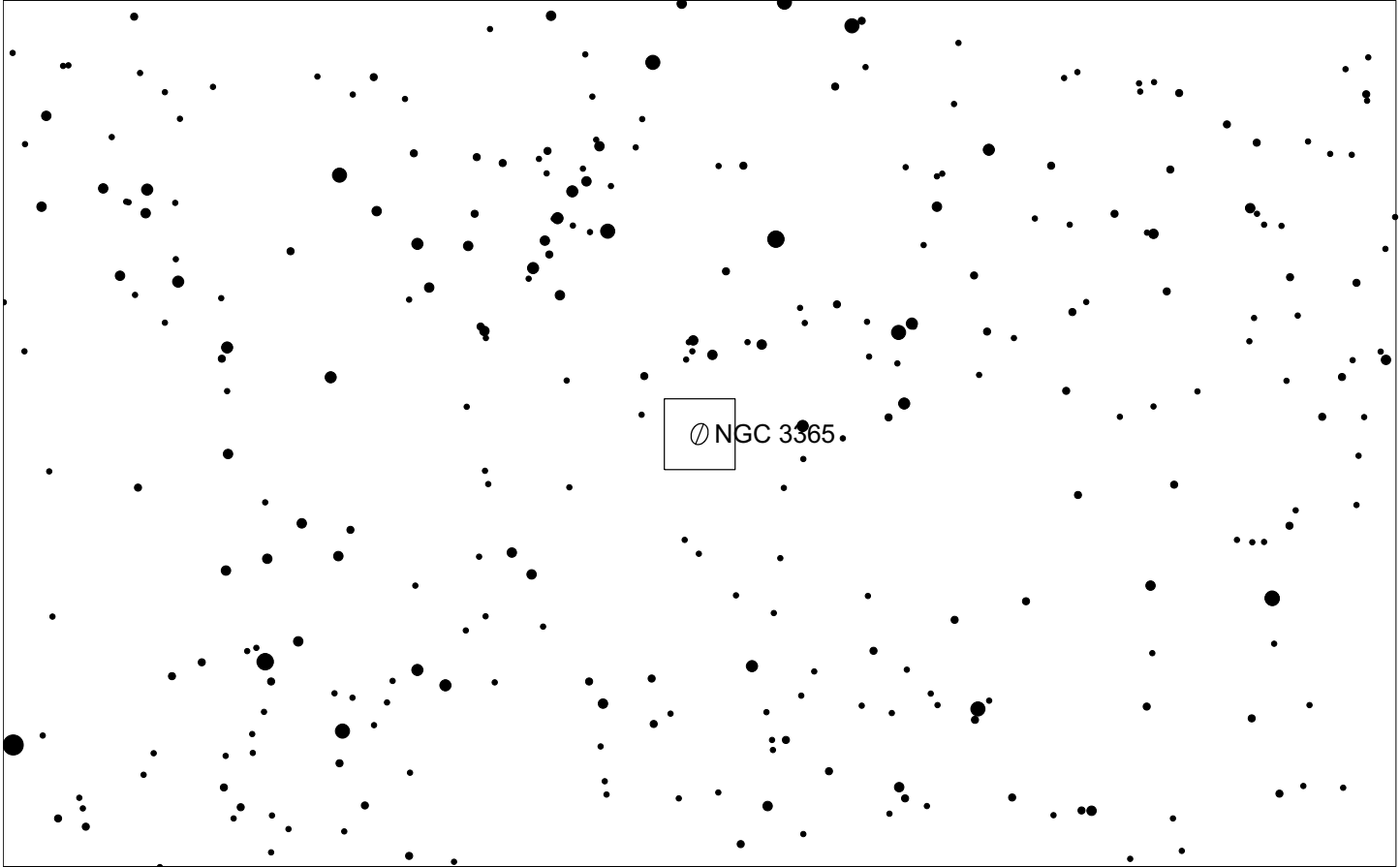
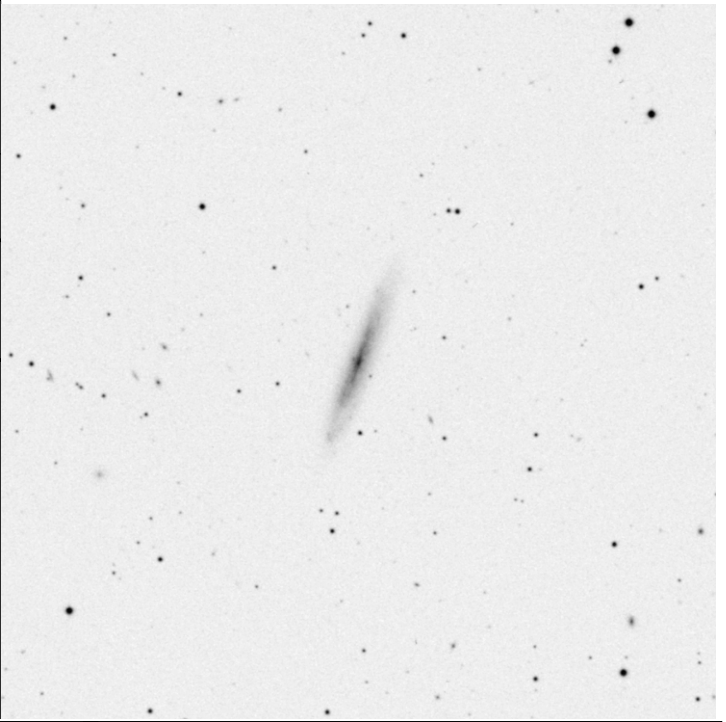
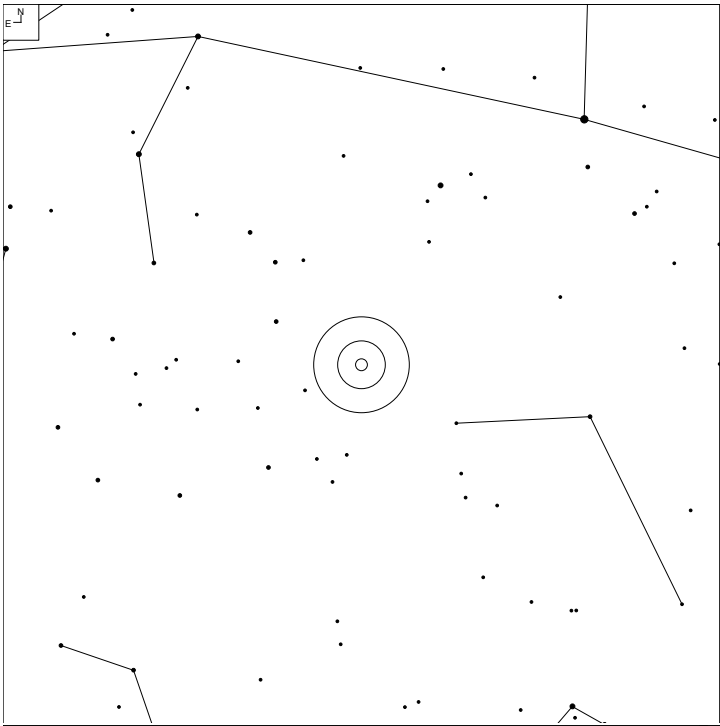
Name	RA	Dec	Mag	Size	Urano
UGC 5708	10h 31m 13.4s	+04°28'14"	13.8p	3.4 x 0.6'	112R

MCG-1-26-12 (Sextans)



Name	RA	Dec	Mag	Size	Urano
MCG-1-26-12	10h 02m 36.0s	-06°00'49"	15.7	2.8 x 0.3'	133R

NGC 3365 (Sextans)

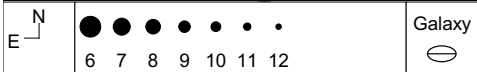
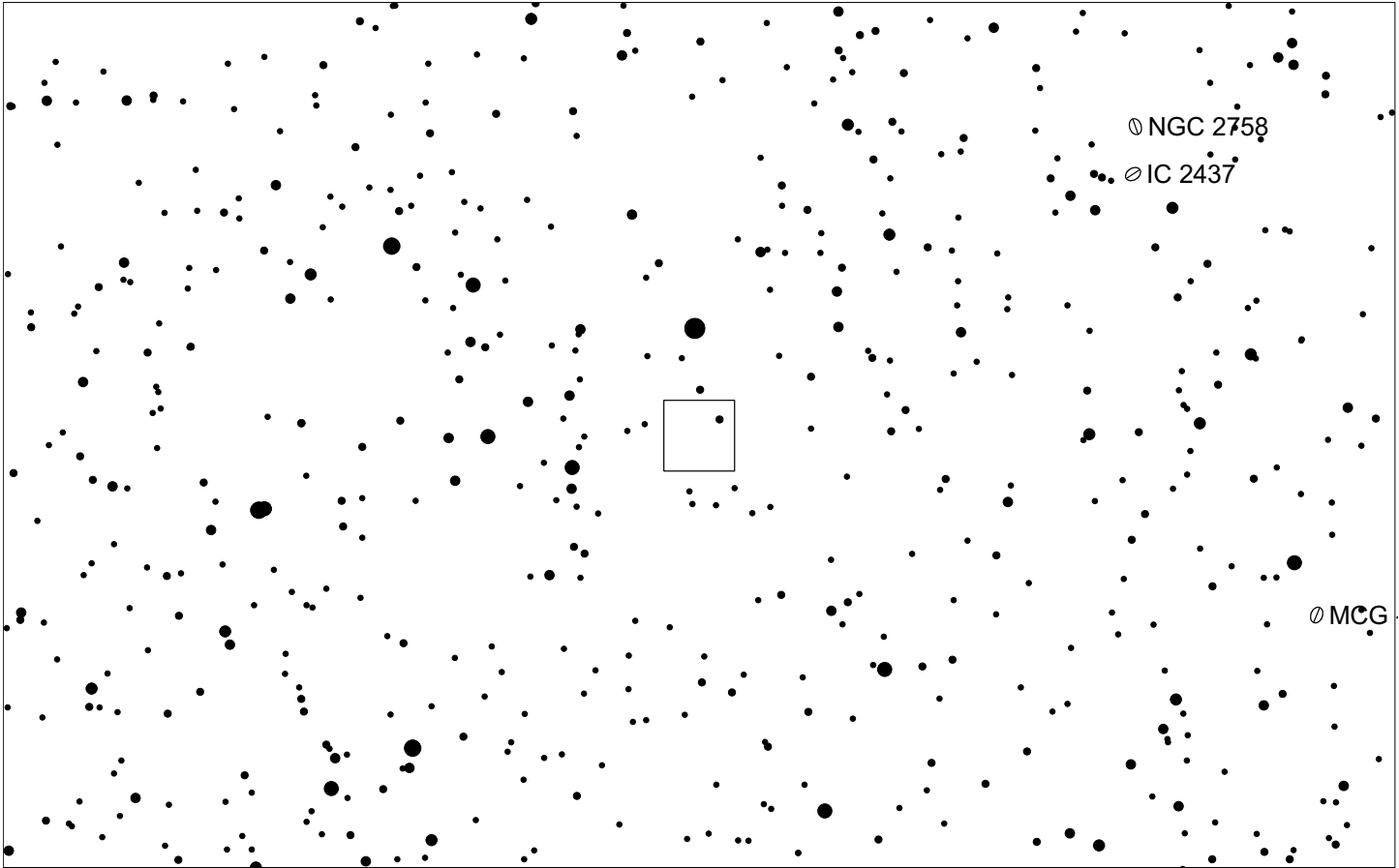
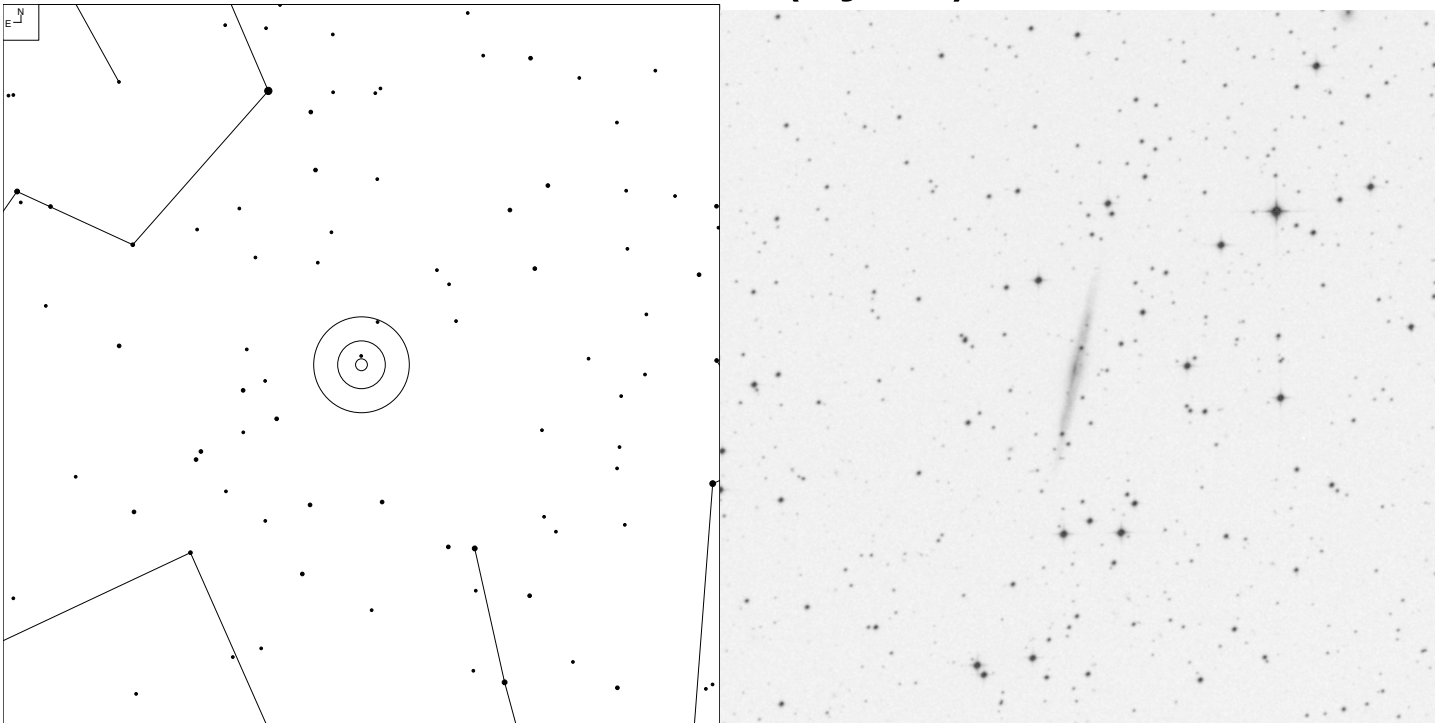


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Name	RA	Dec	Mag	Size	Urano
NGC 3365	10h 46m 12.0s	+01°48'46"	13.2b	4.4 x 0.7'	112R

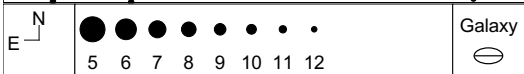
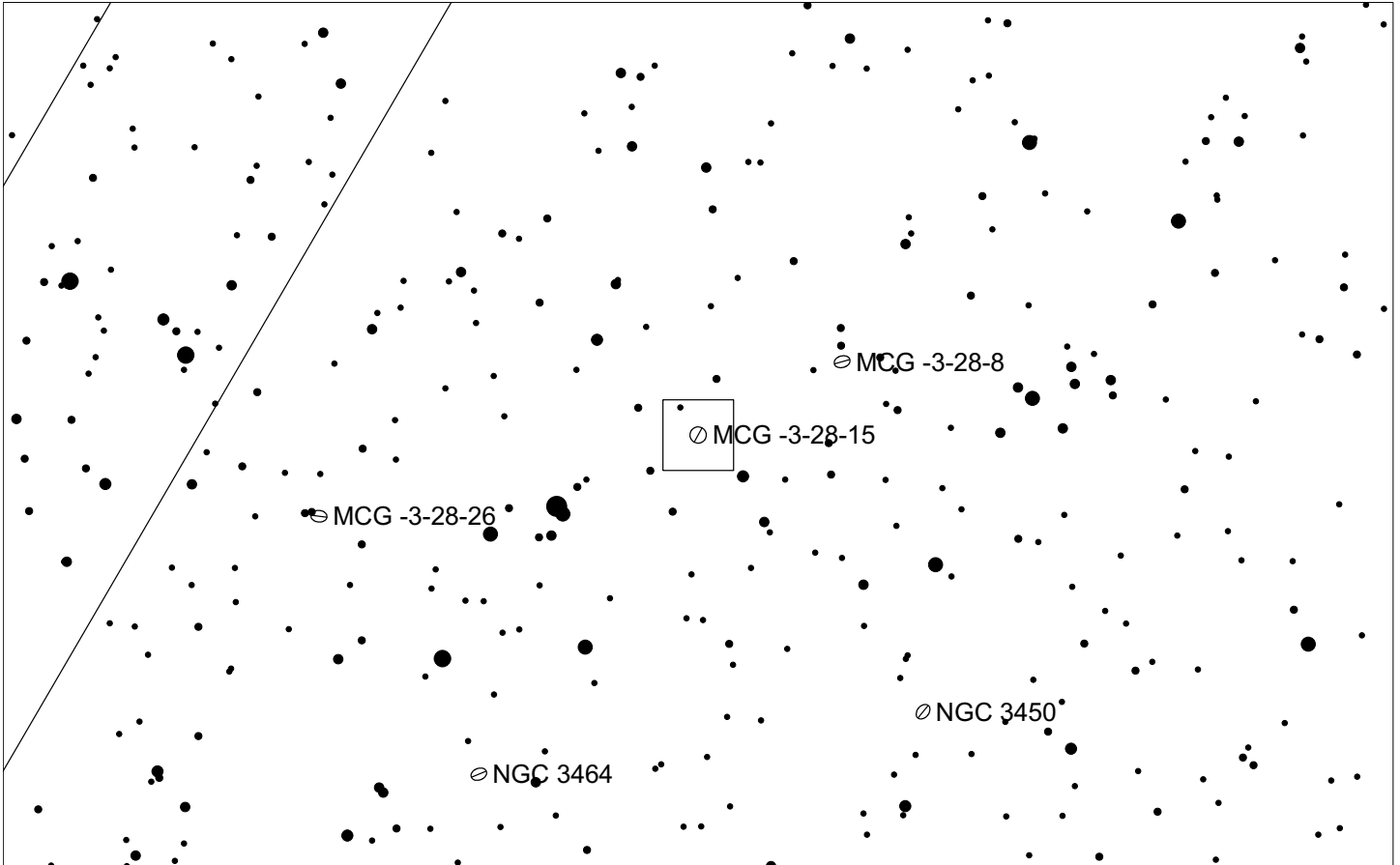
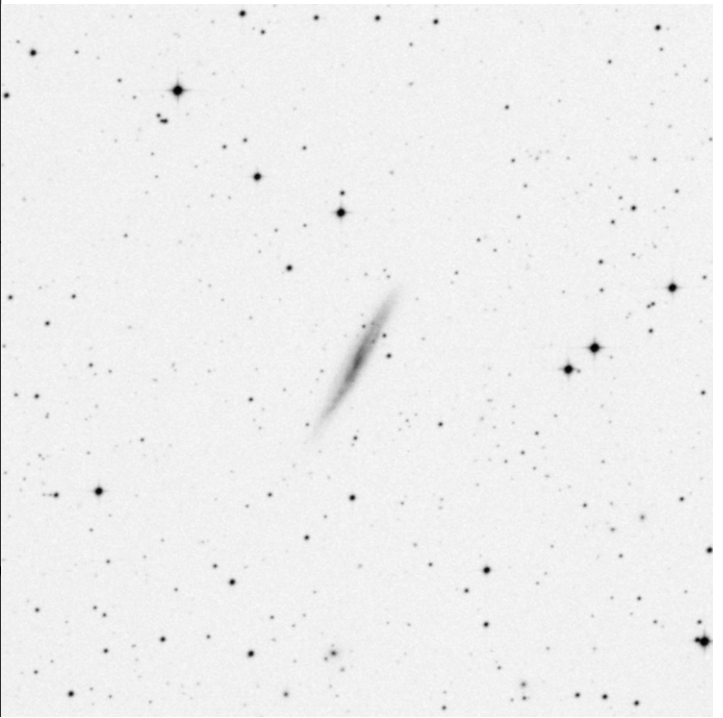
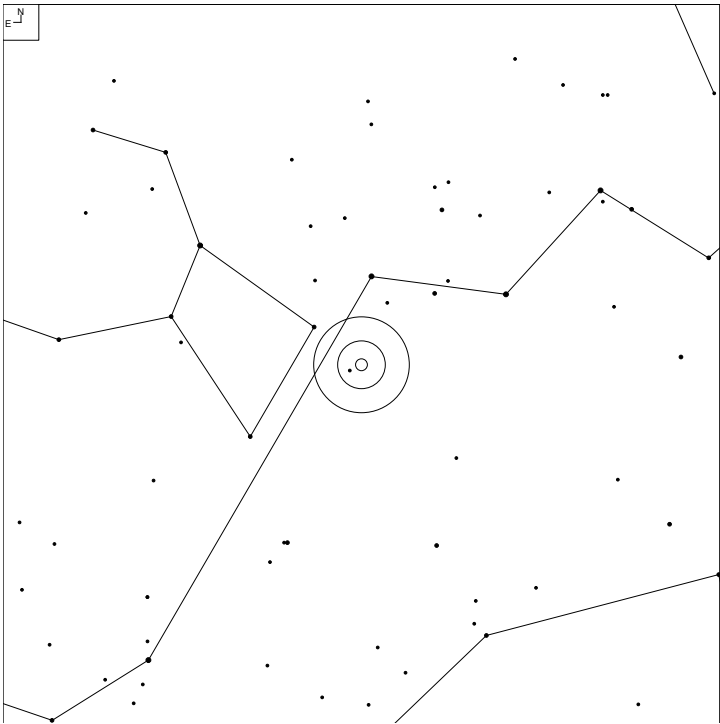
MCG-3-24-1 (Hydra)



Name	RA	Dec	Mag	Size	Urano
MCG-3-24-1	09h 11m 54.7s	-20°07'09"	14.4p	4.1 x 0.3'	152R
UGCA 151					

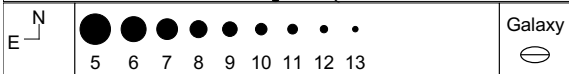
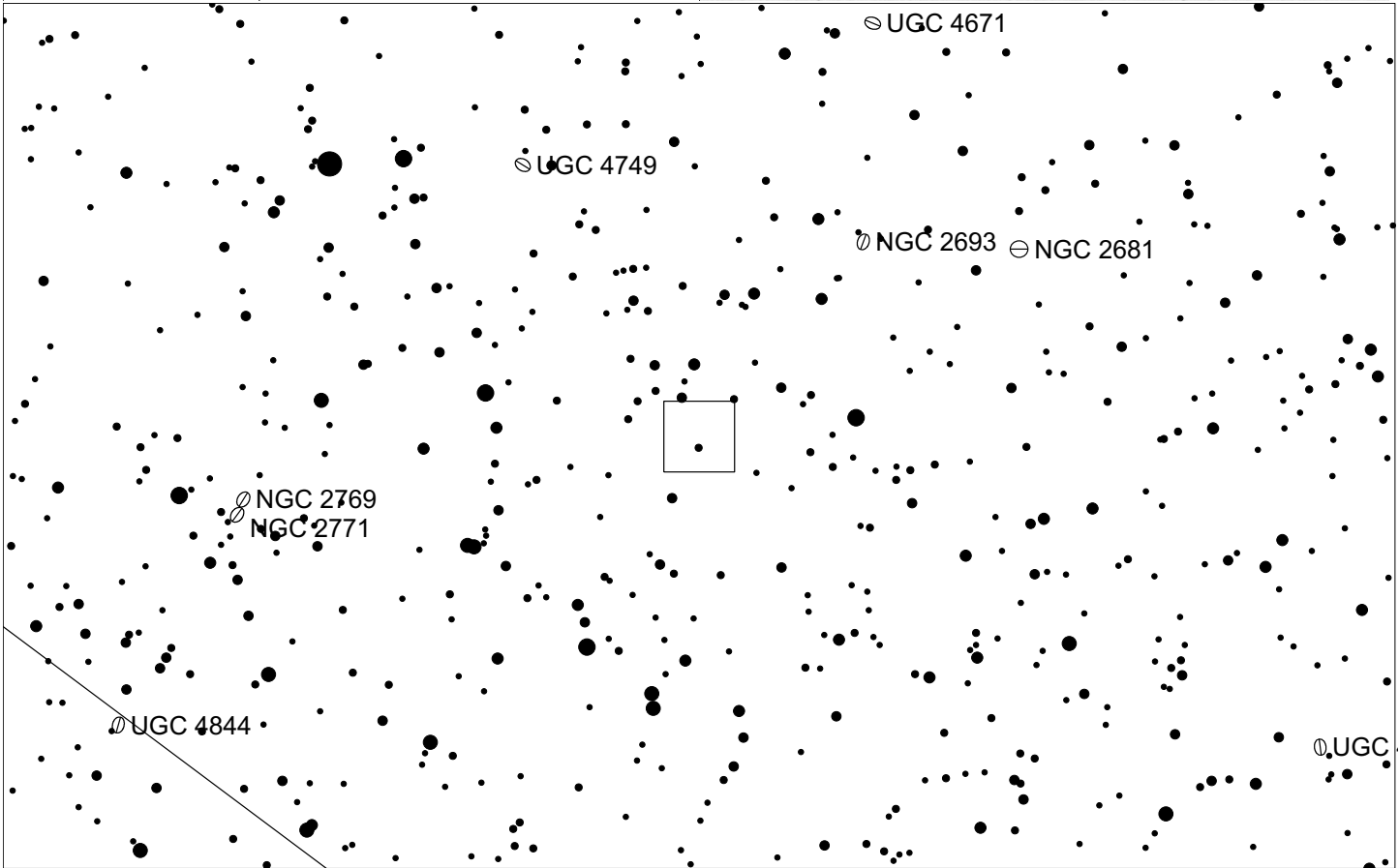
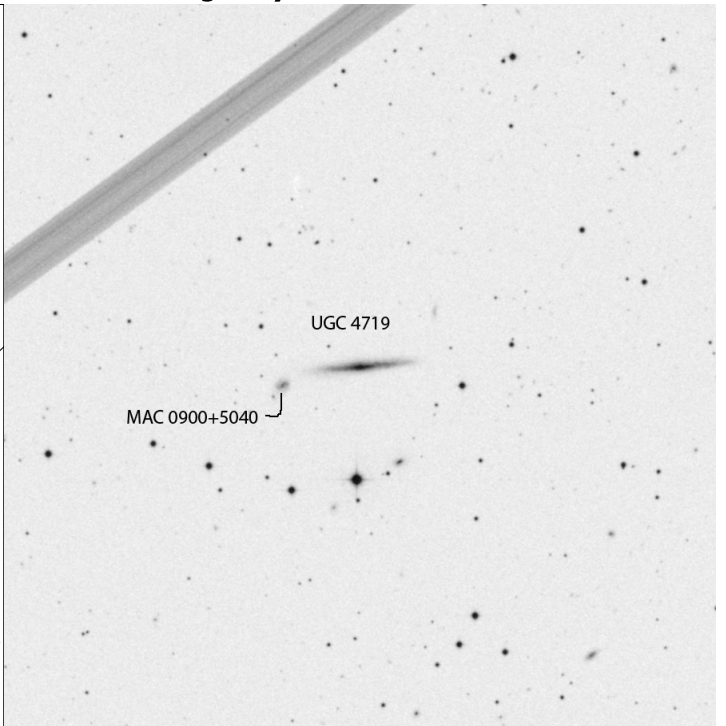
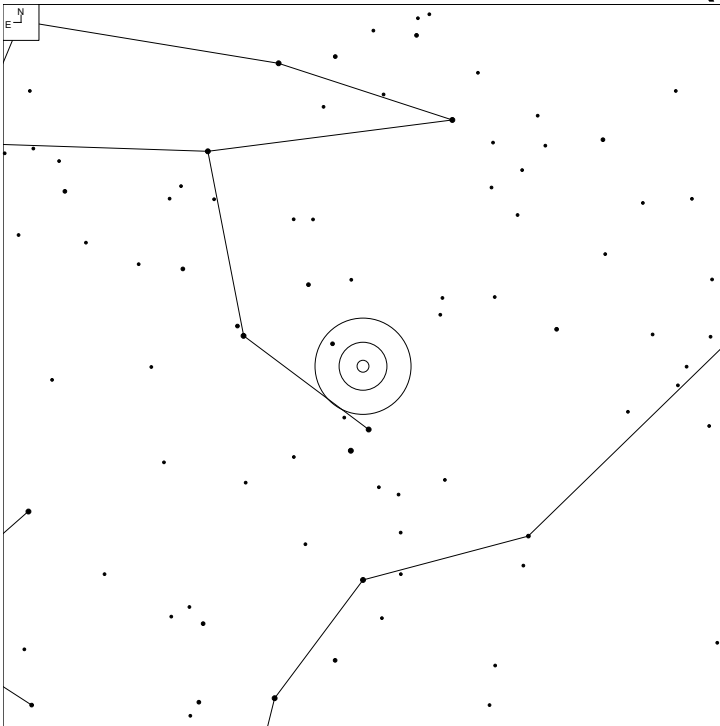
Flat Galaxies

MCG-3-28-15 (Hydra)



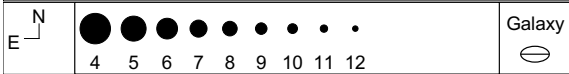
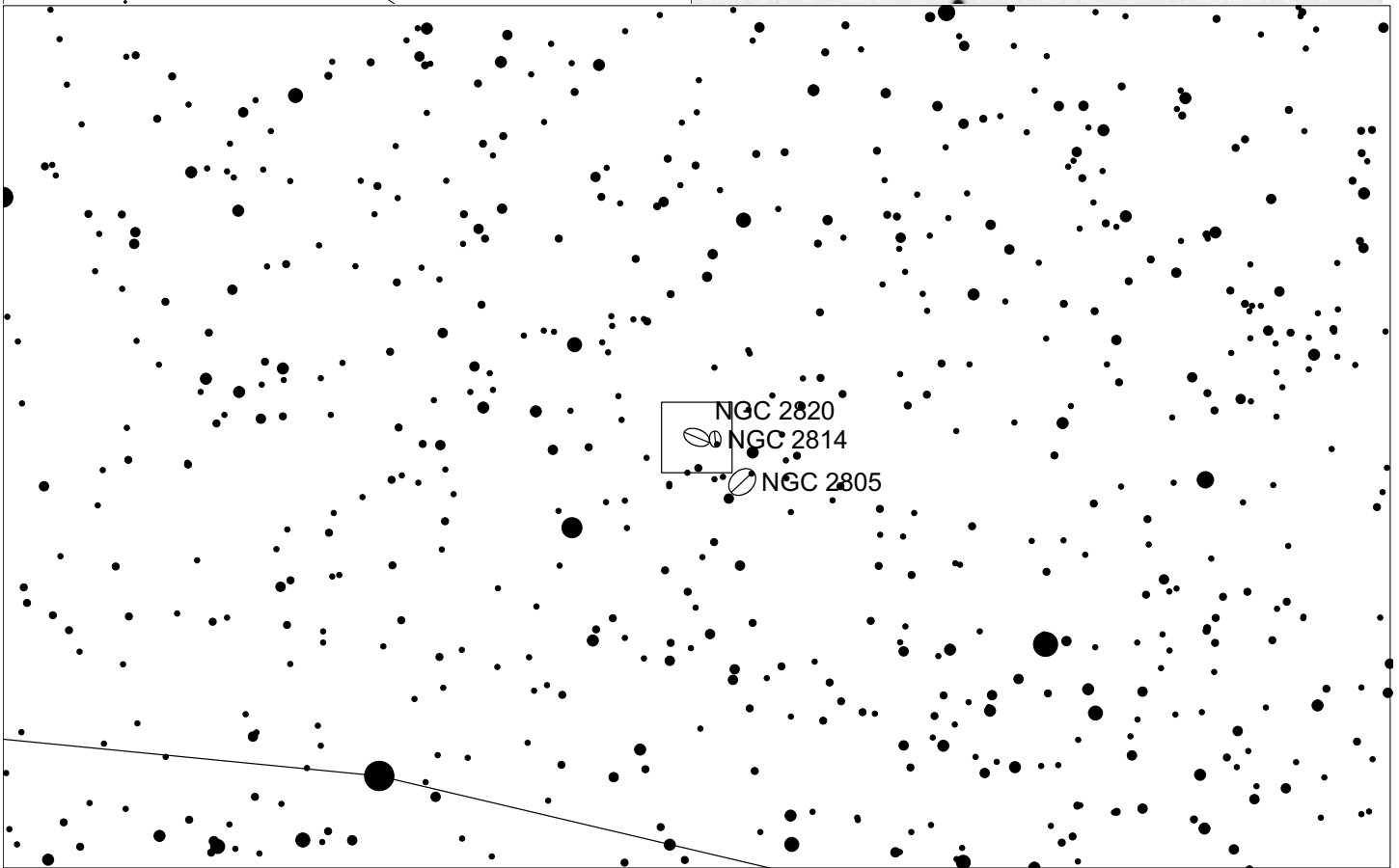
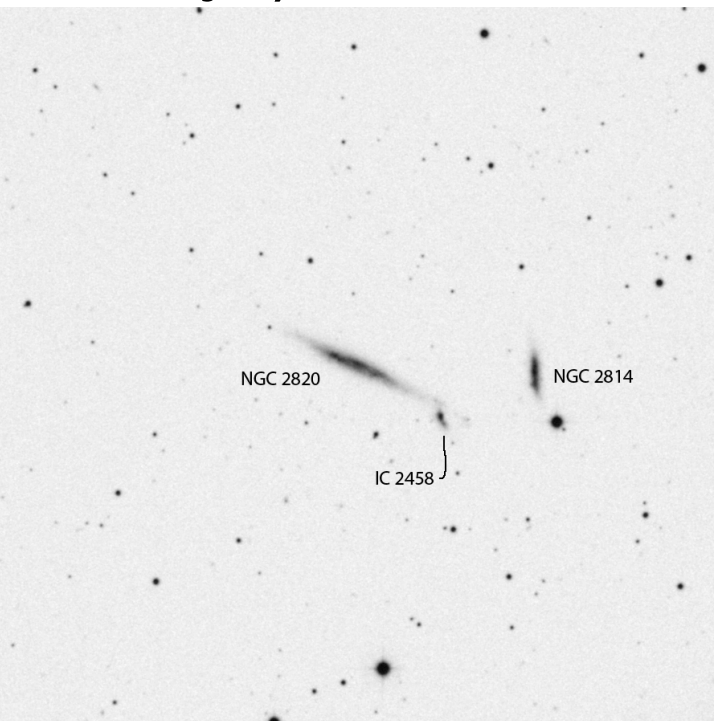
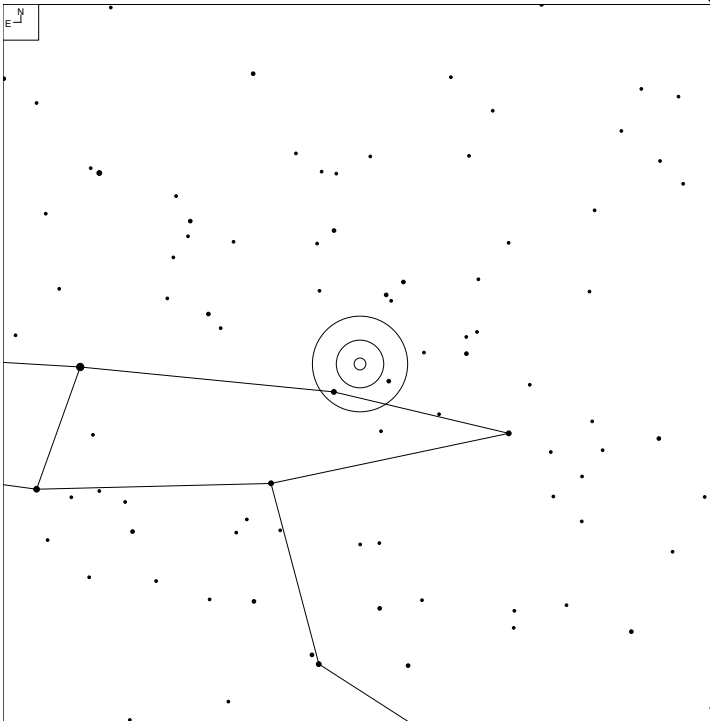
Name	RA	Dec	Mag	Size	Urano
MCG-3-28-15	10h 51m 24.0s	-19°53'32"	13.8p	3.3 x 0.4'	151L
UGCA 221					

UGC 4719 (Ursa Major)



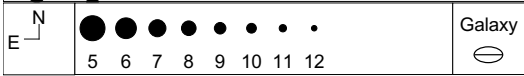
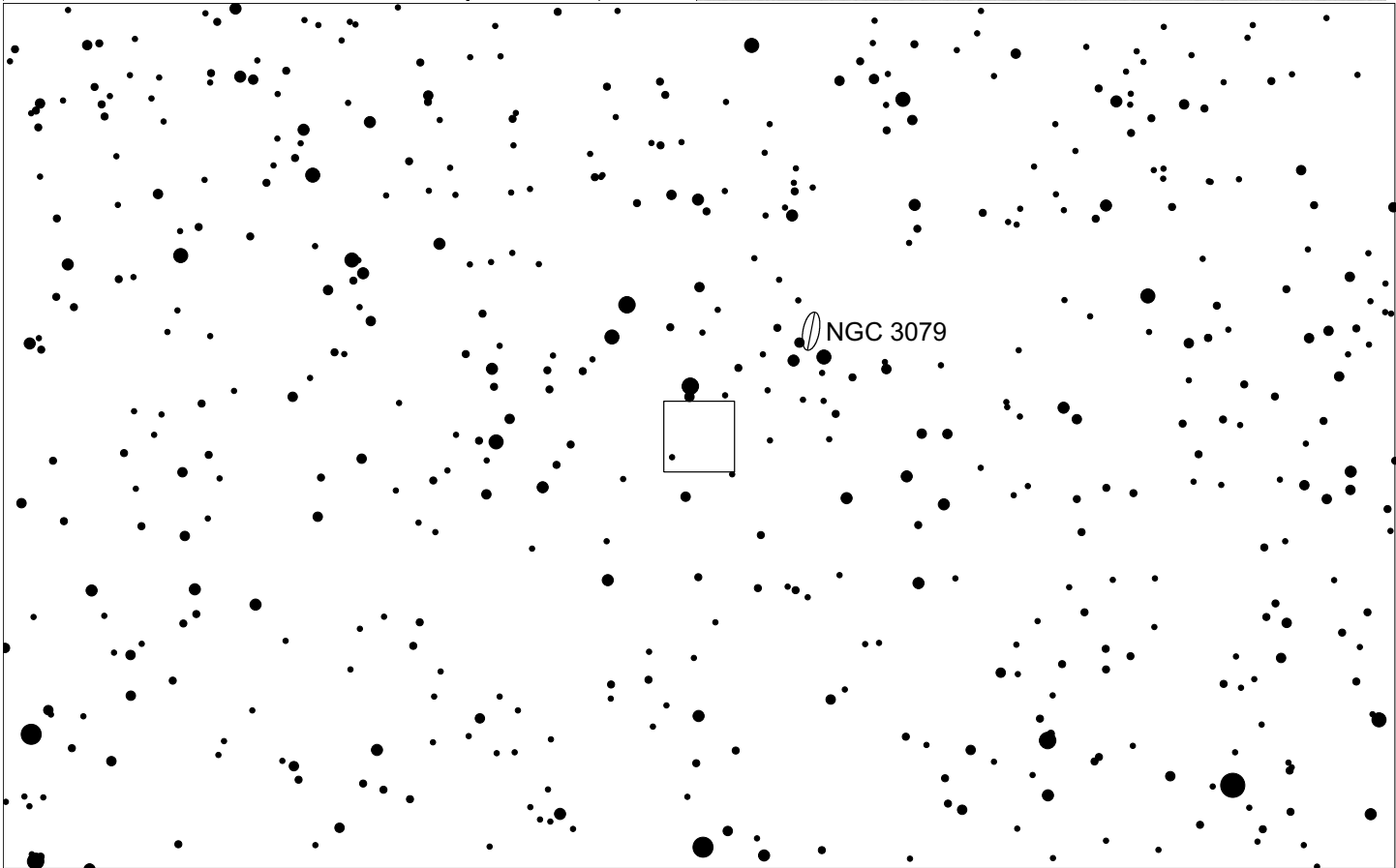
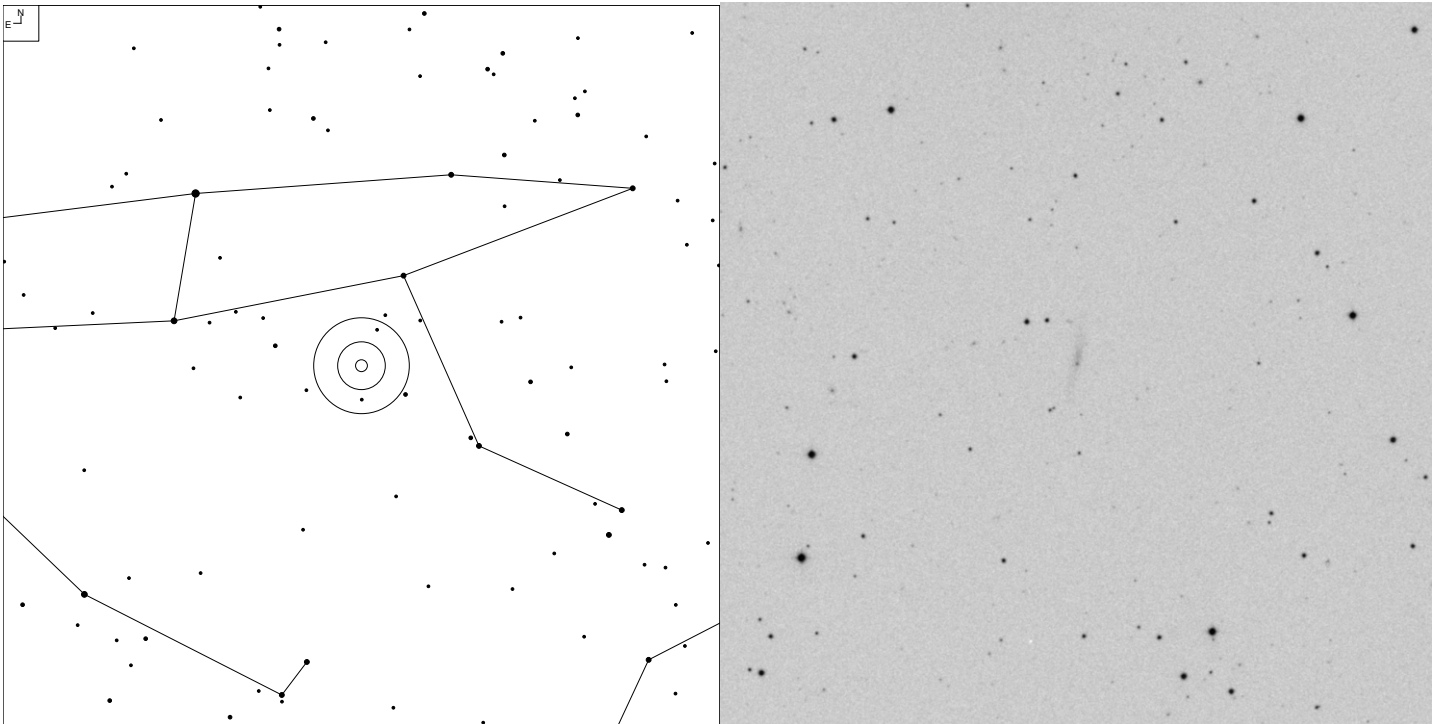
Name	RA	Dec	Mag	Size	Urano
UGC 4719	09h 00m 38.2s	+50°40'43"	14.9p	2.3 x 0.2'	39R

NGC 2820 (Ursa Major)



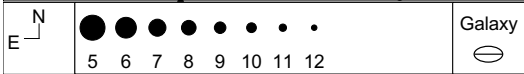
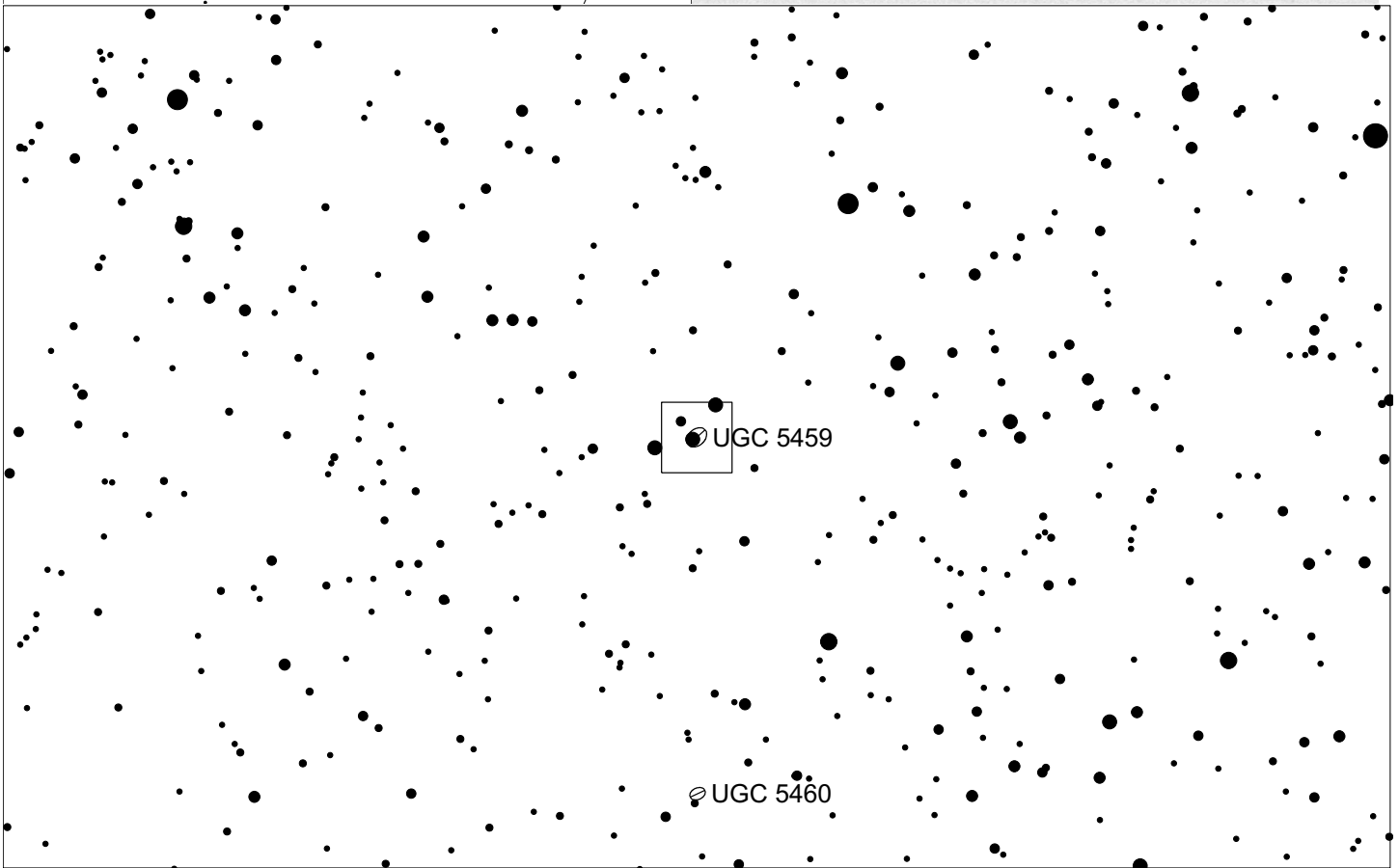
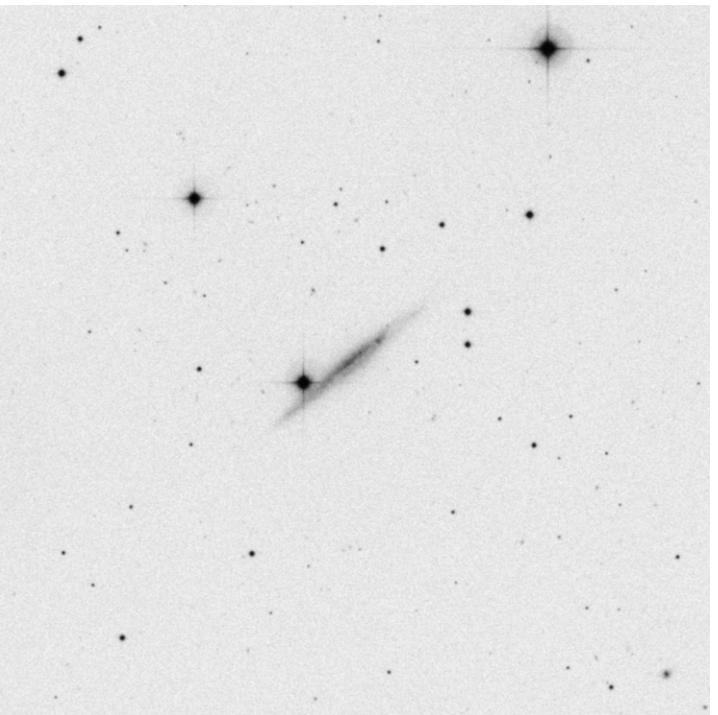
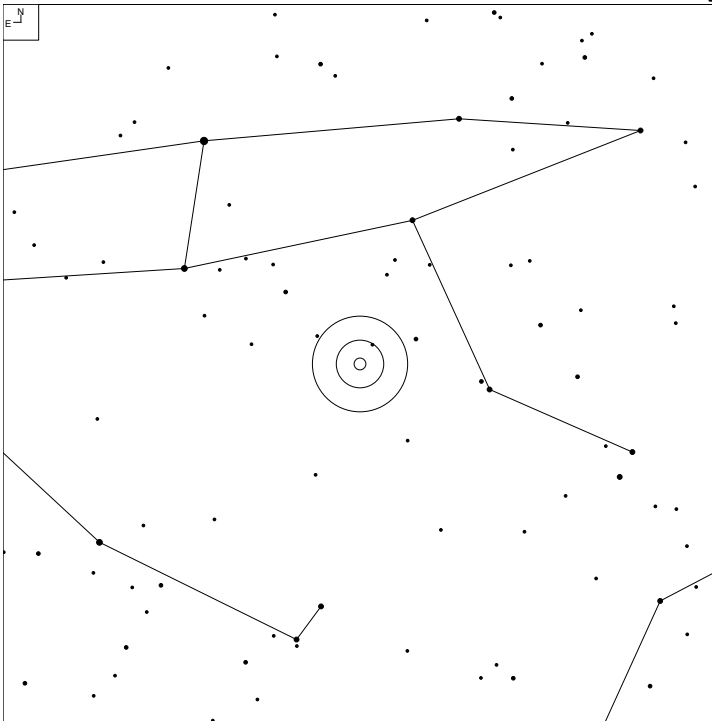
Name	RA	Dec	Mag	Size	Urano
NGC 2820	09h 21m 47.1s	+64°15'28"	12.8v	5.5 x 0.7'	14R

UGC 5421 (Ursa Major)



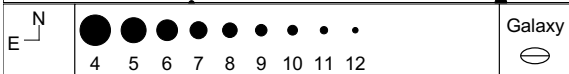
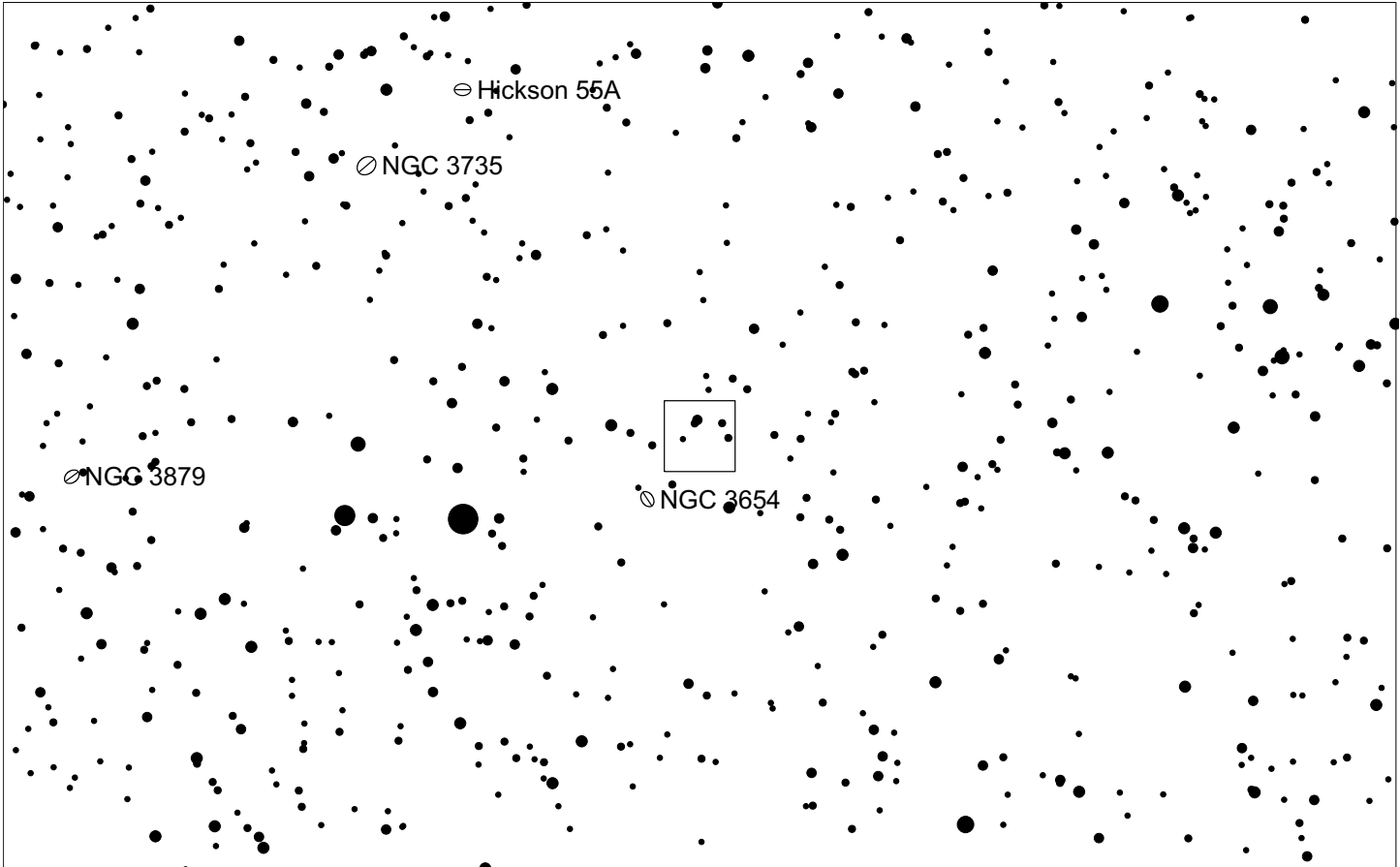
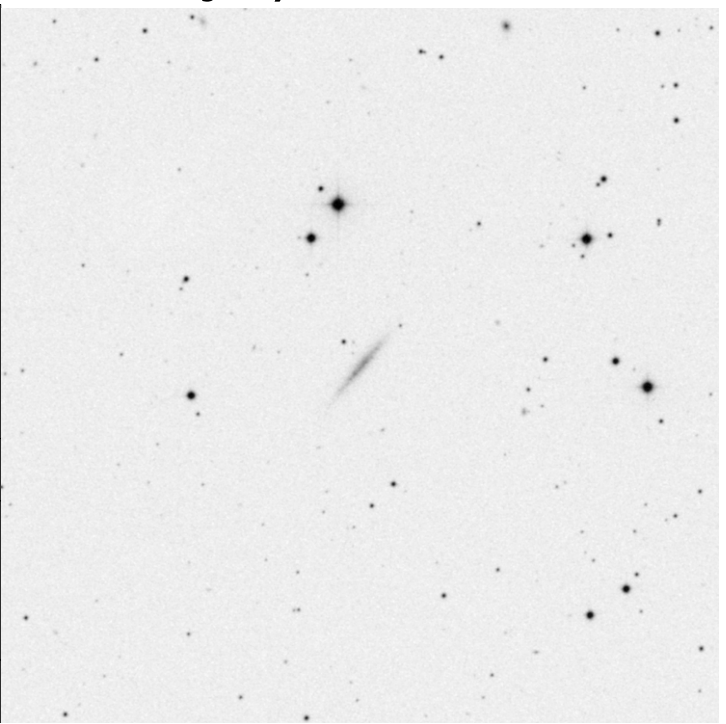
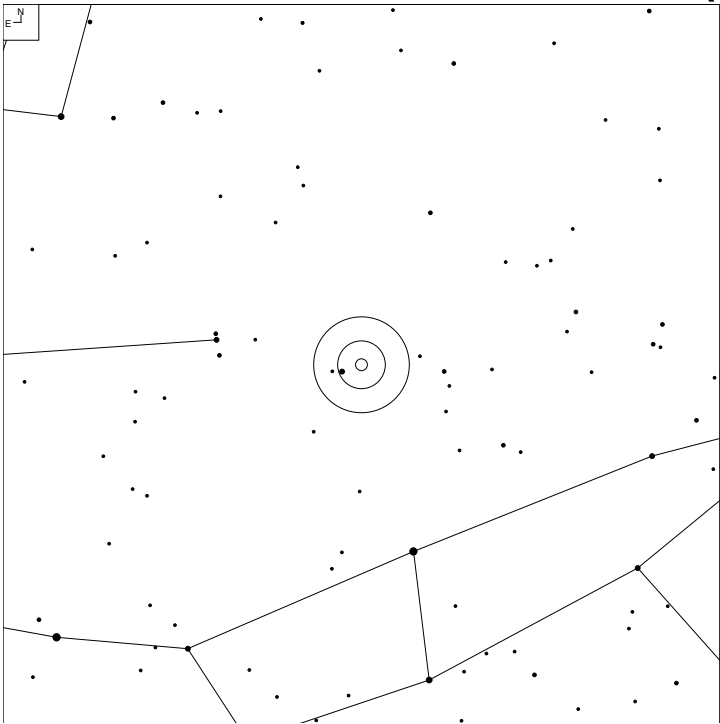
Name	RA	Dec	Mag	Size	Urano
UGC 5421	10h 04m 41.8s	+55°18'45"	18.0	1.7 x 0.3'	25L

UGC 5459 (Ursa Major)



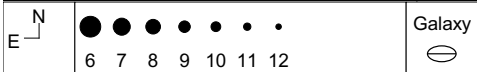
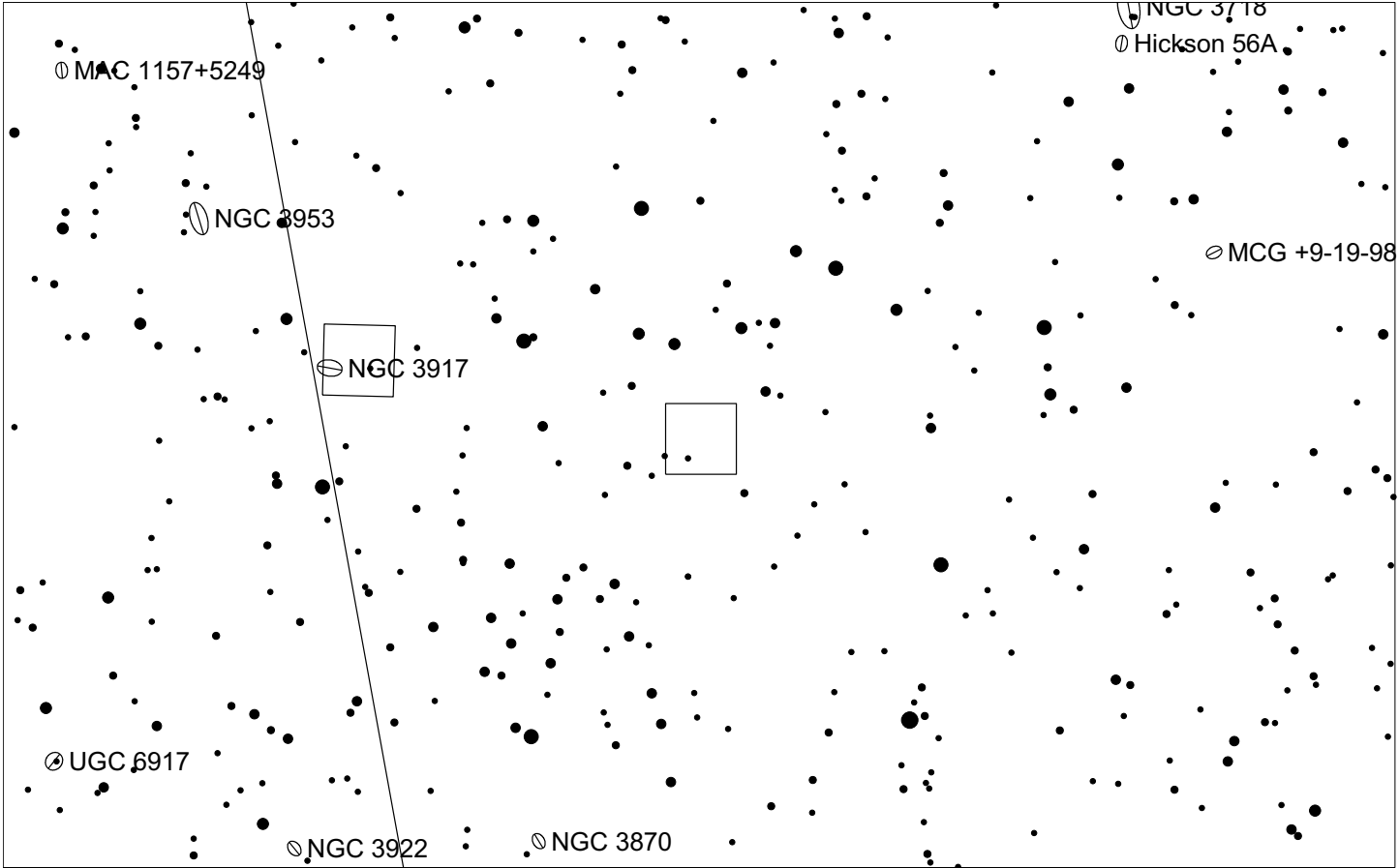
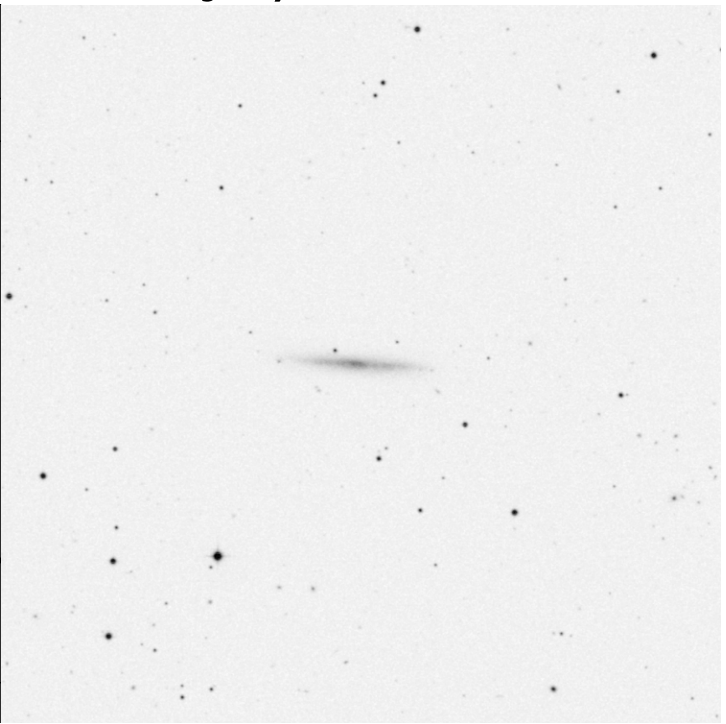
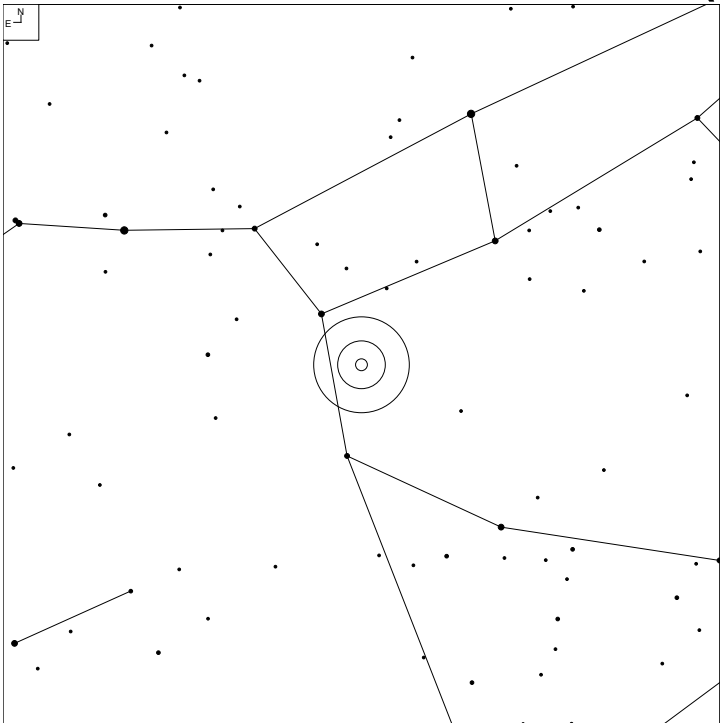
Name	RA	Dec	Mag	Size	Urano
UGC 5459	10h 08m 09.6s	+53°05'02"	13.2b	4.7 x 0.7'	25L

UGC 6378 (Ursa Major)



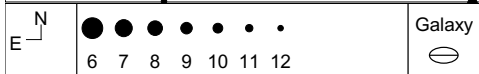
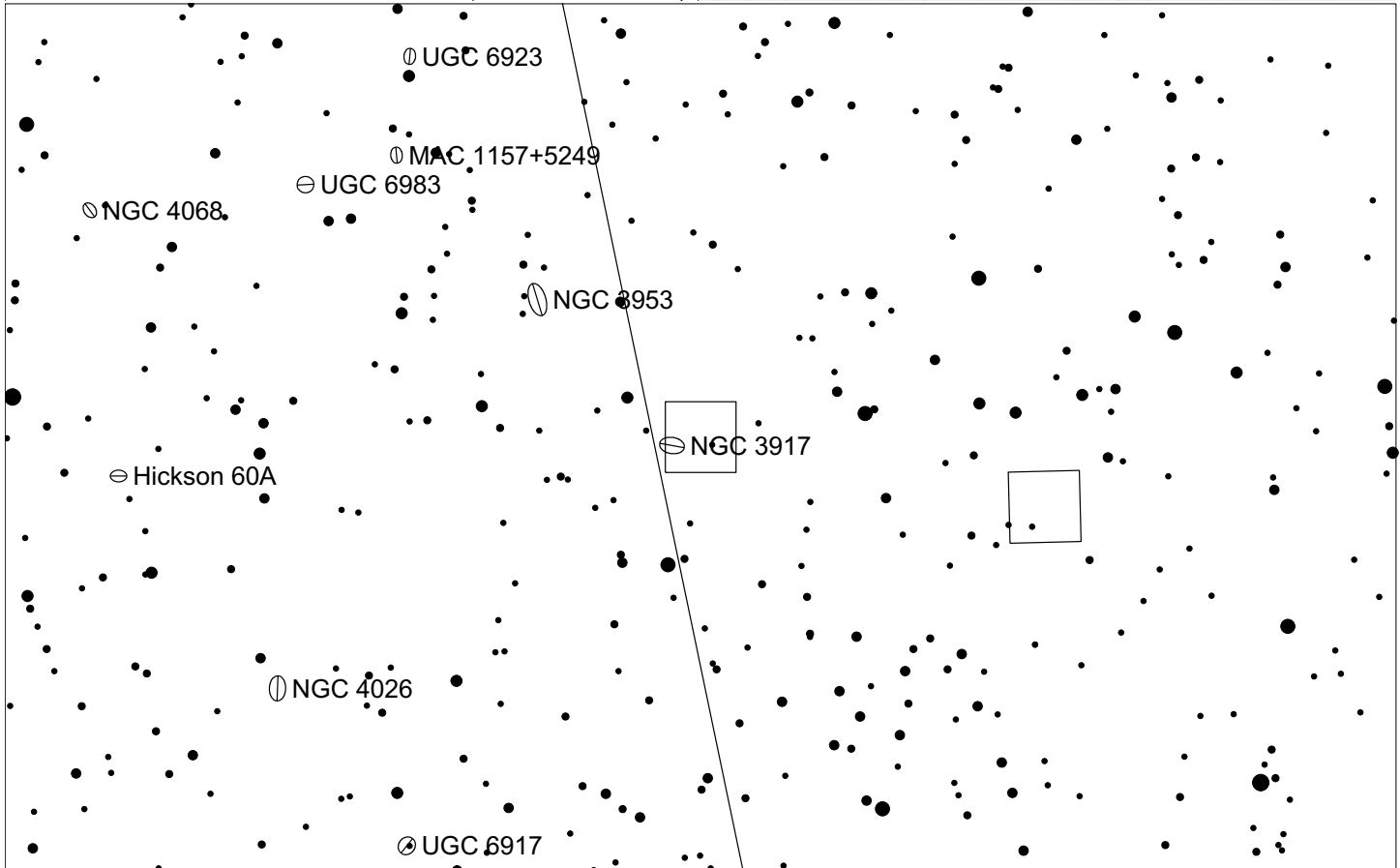
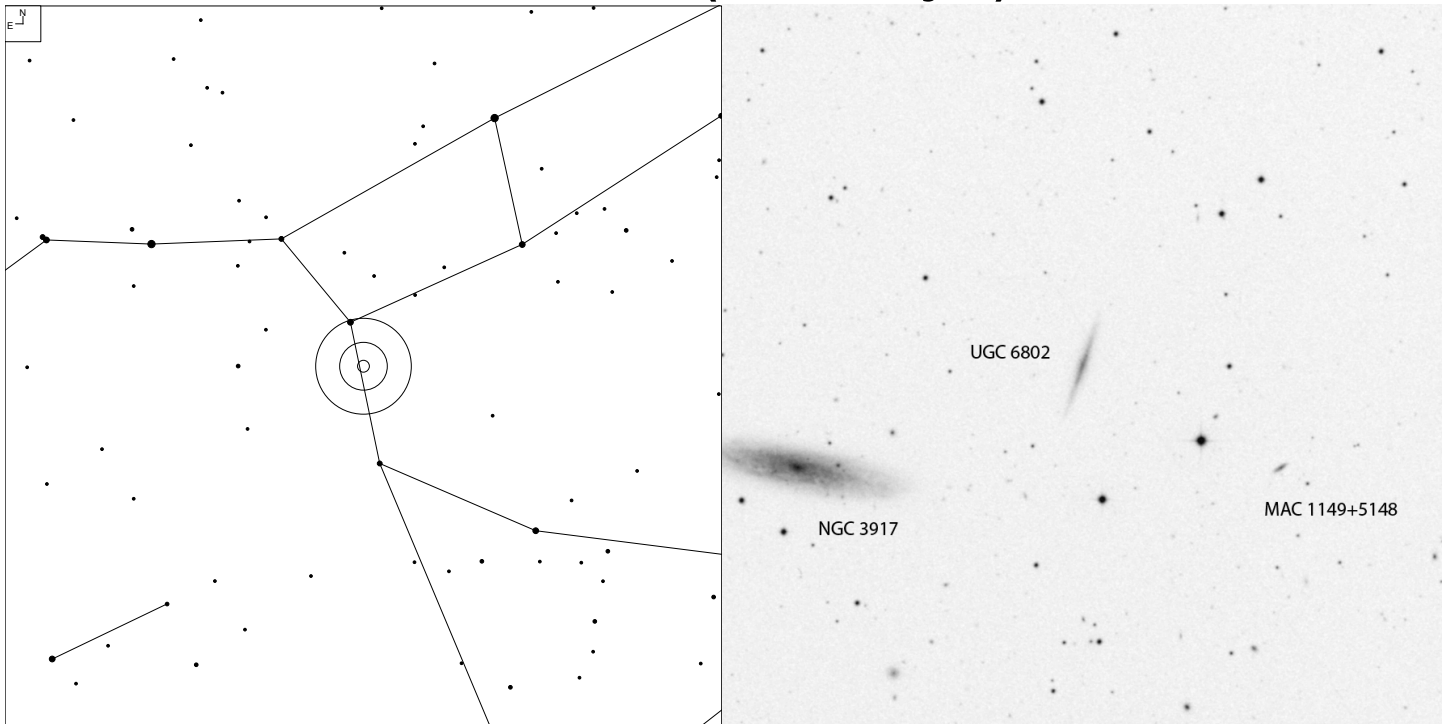
Name	RA	Dec	Mag	Size	Urano
UGC 6378	11h 22m 07.3s	+69°38'02"	14.7p	2.7 x 0.2'	13R

UGC 6667 (Ursa Major)



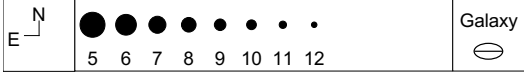
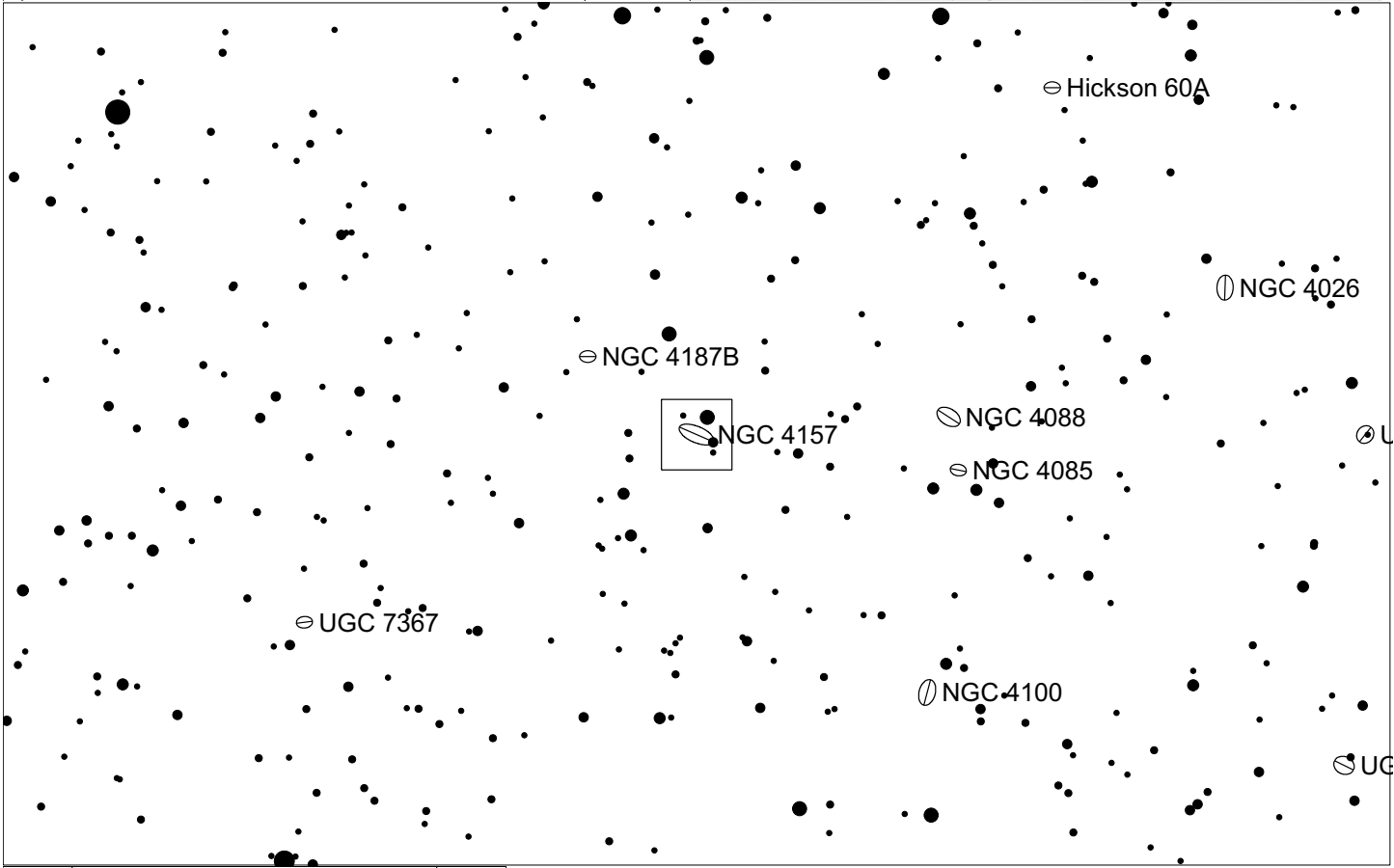
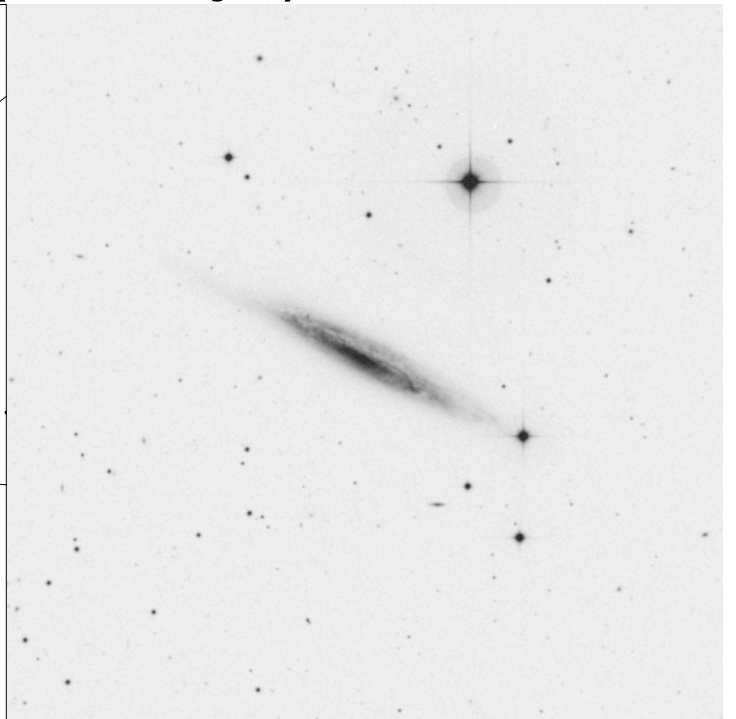
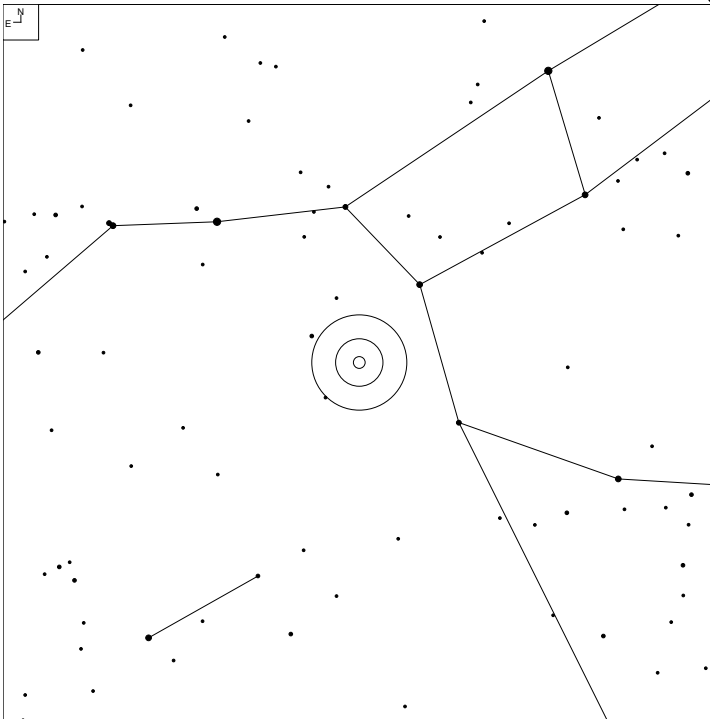
Name	RA	Dec	Mag	Size	Urano
UGC 6667	11h 42m 26.3s	+51°35'52"	14.2p	3.7 x 0.6'	24R

UGC 6802 (Ursa Major)



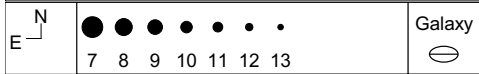
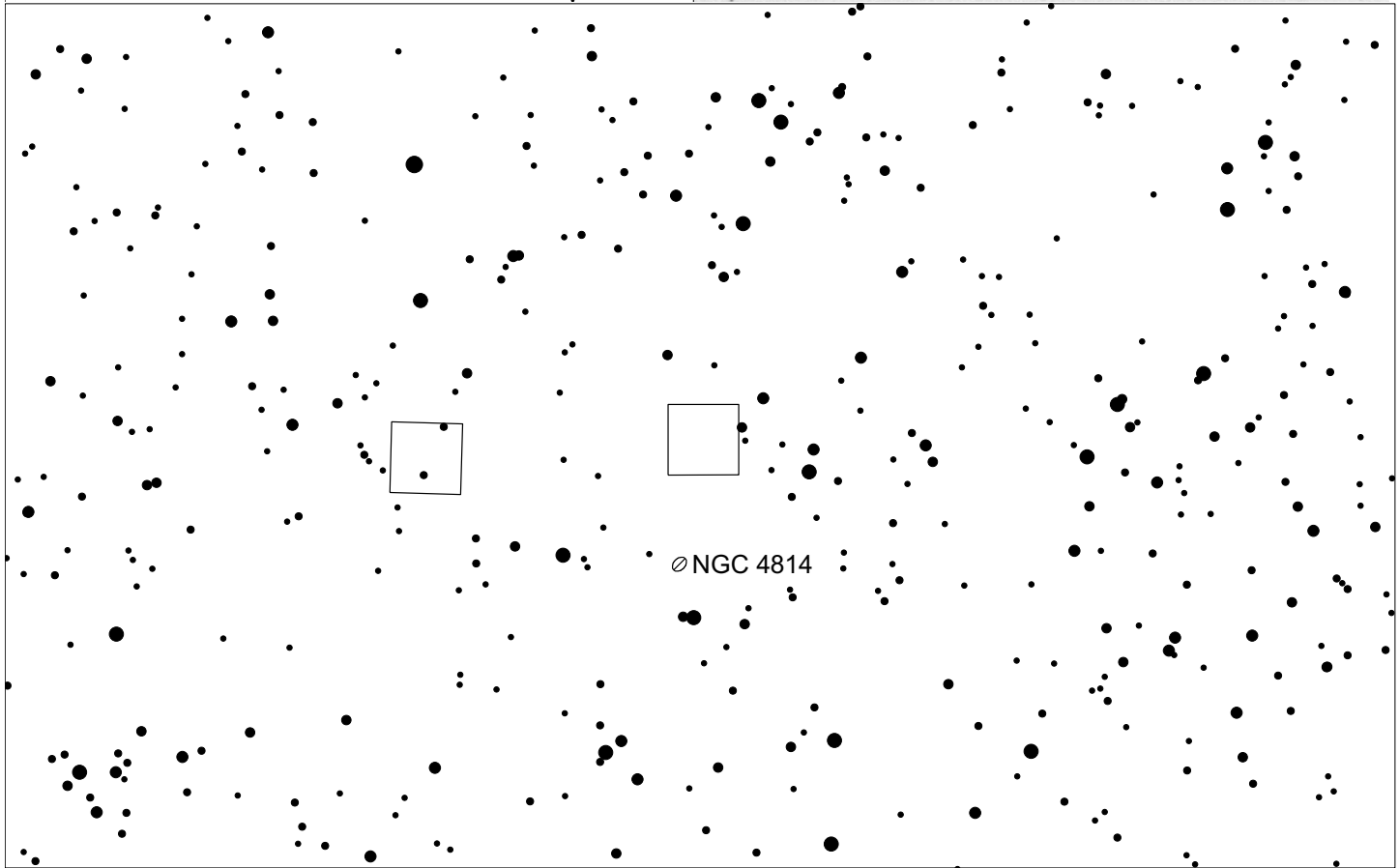
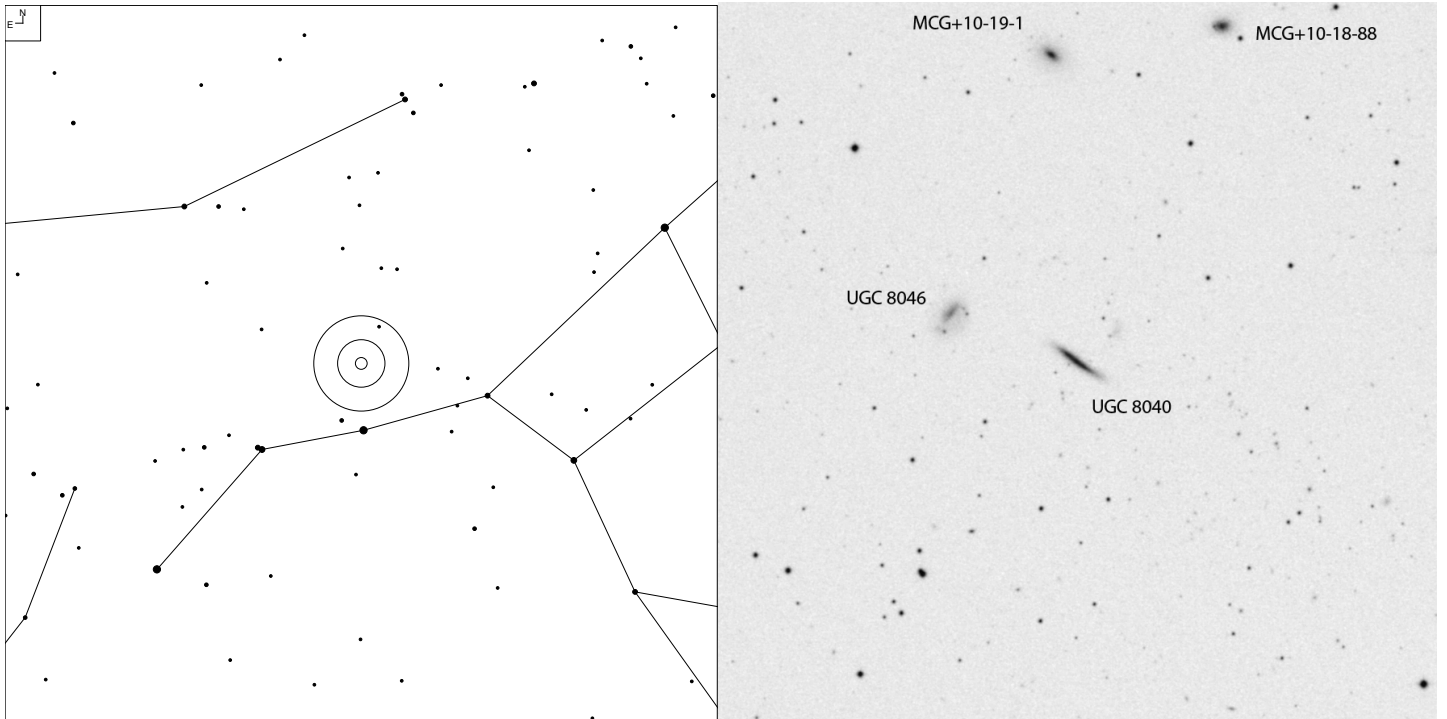
Name	RA	Dec	Mag	Size	Urano
UGC 6802	11h 50m 07.2s	+51°51'19"	15.9	2.3 x 0.3'	24R

NGC 4157 (Ursa Major)



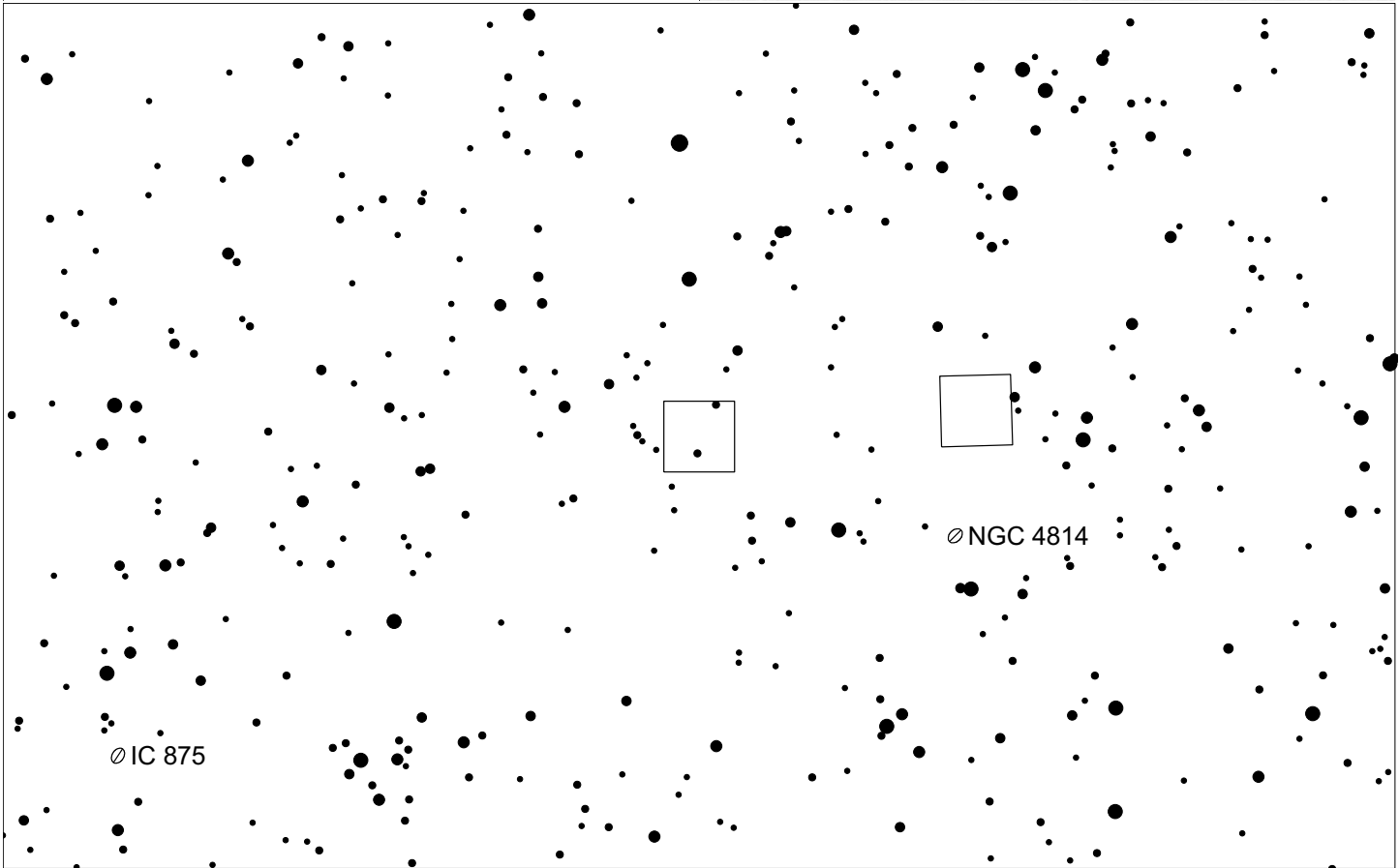
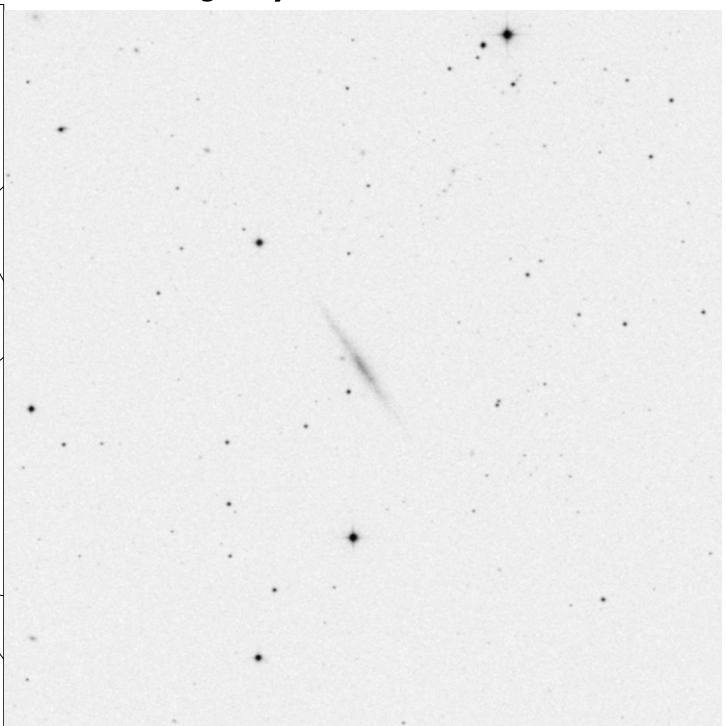
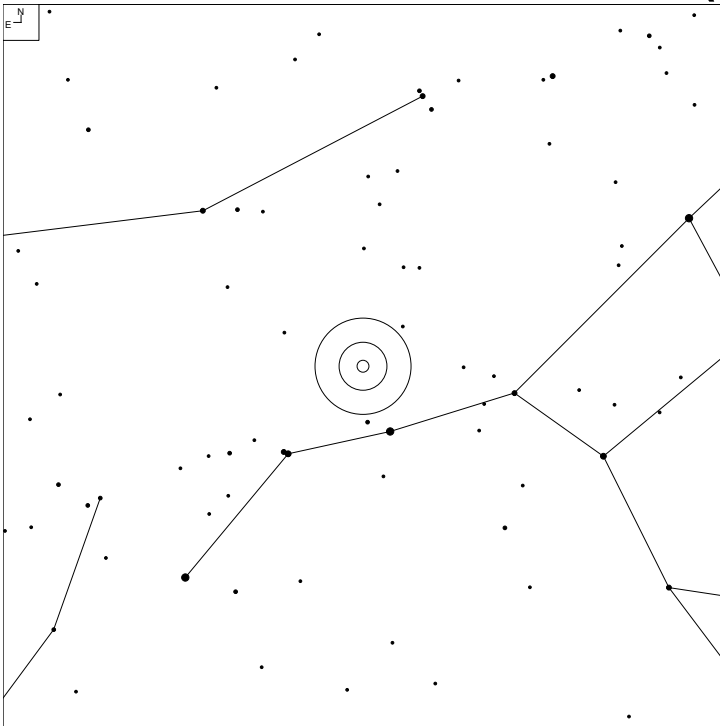
Name	RA	Dec	Mag	Size	Urano
NGC 4157	12h 11m 04.8s	+50°29'07"	12.2	7.7 x 1.3'	37R

UGC 8040 (Ursa Major)



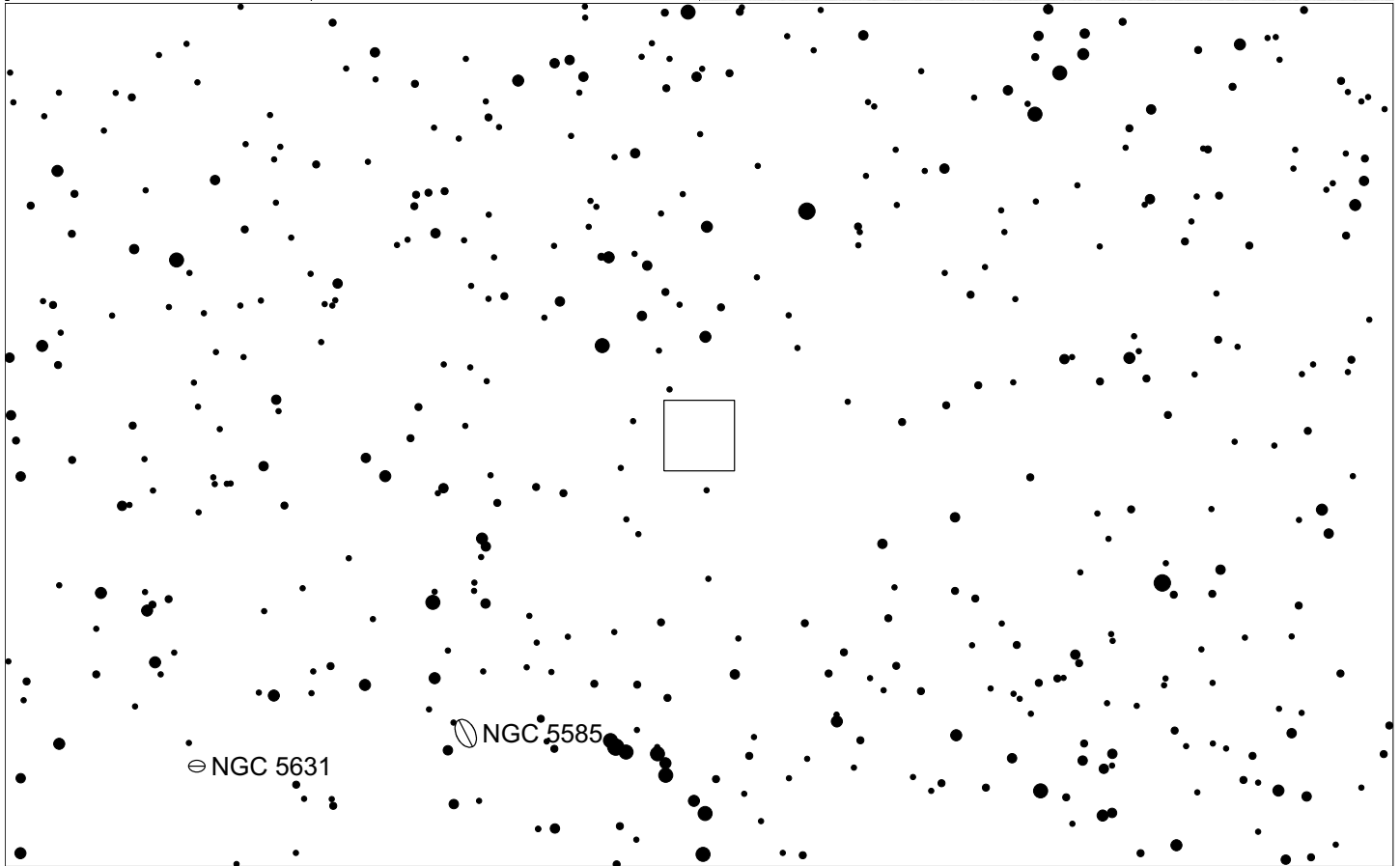
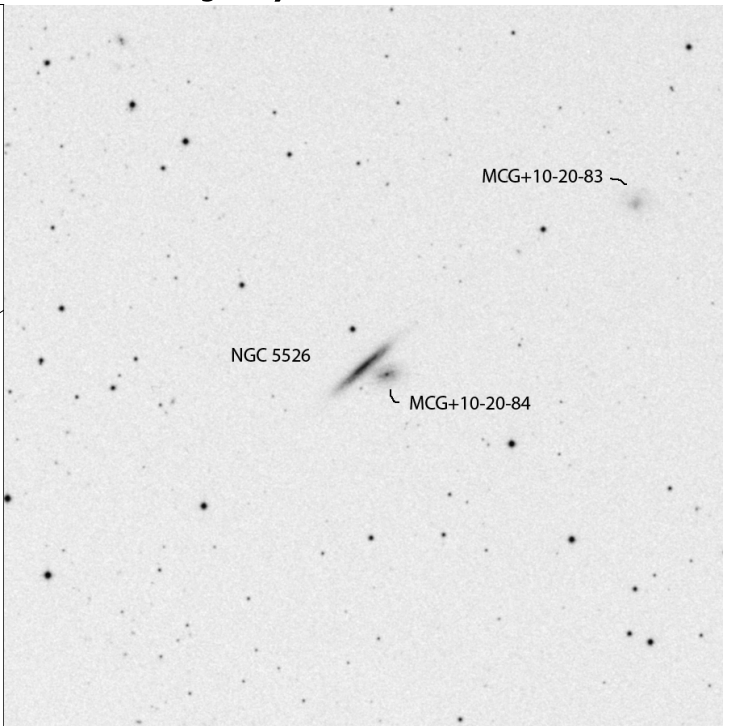
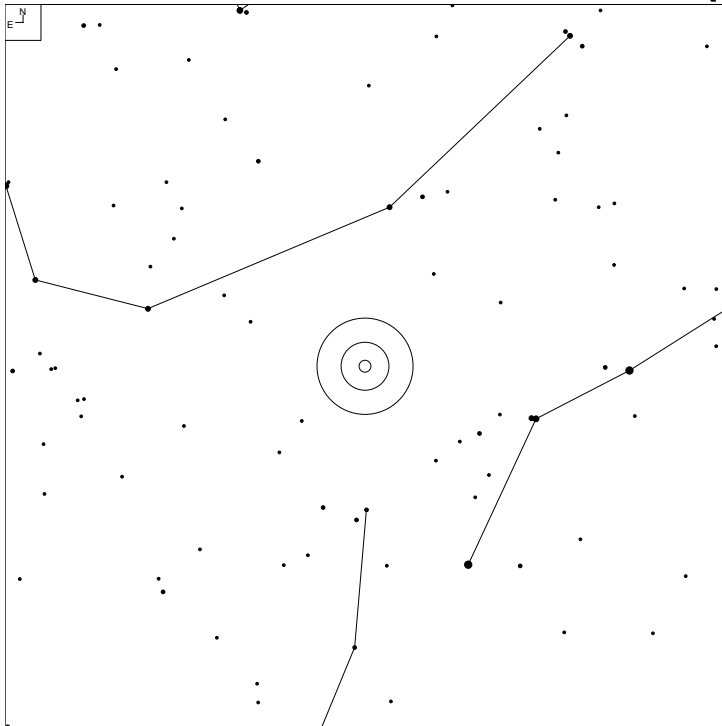
Name	RA	Dec	Mag	Size	Urano
UGC 8040	12h 54m 43.8s	+58°46'38"	14.7p	1.4 x 0.1'	23R

UGC 8146 (Ursa Major)



Name	RA	Dec	Mag	Size	Urano
UGC 8146	13h 02m 07.7s	+58°42'01"	14.4p	3.4 x 0.3'	23R

NGC 5526 (Ursa Major)

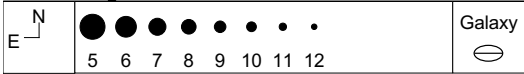
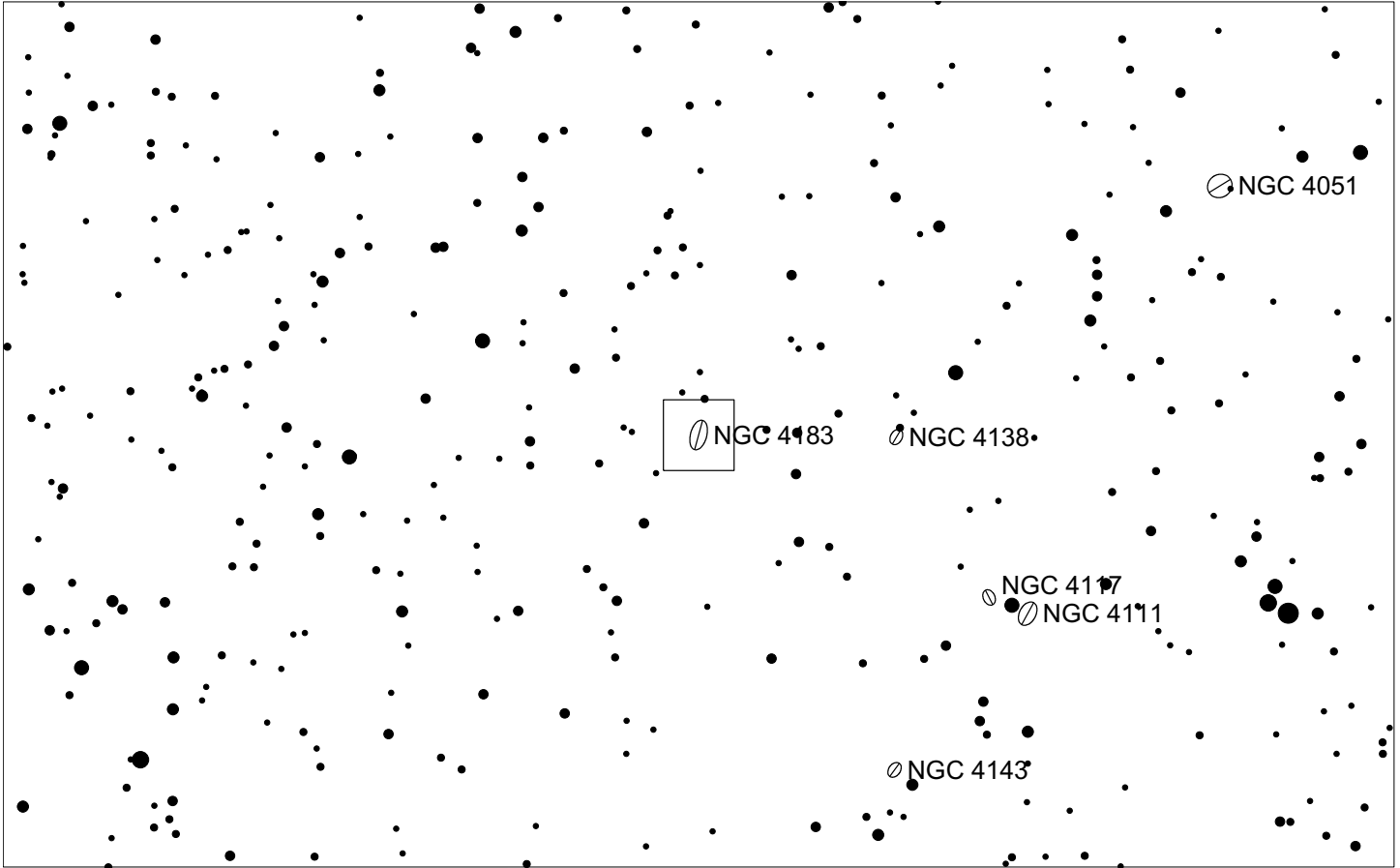
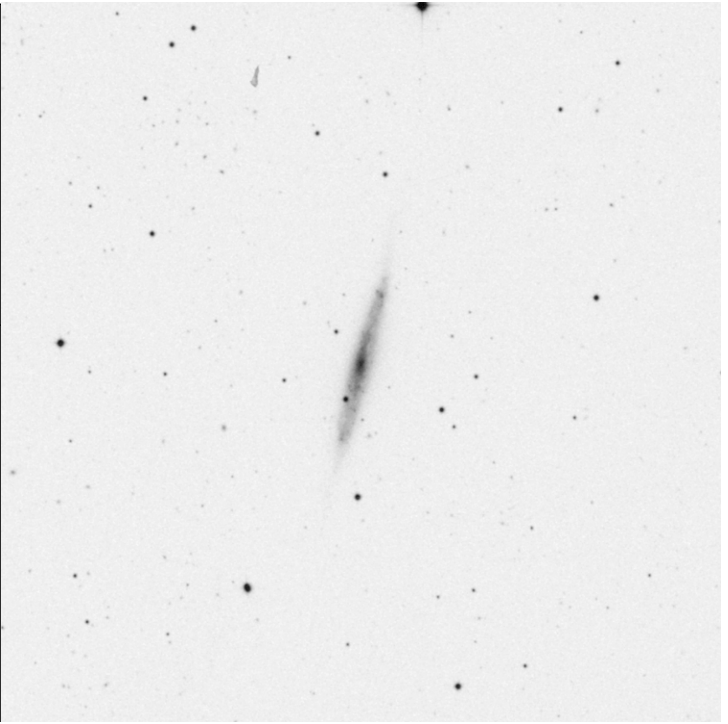
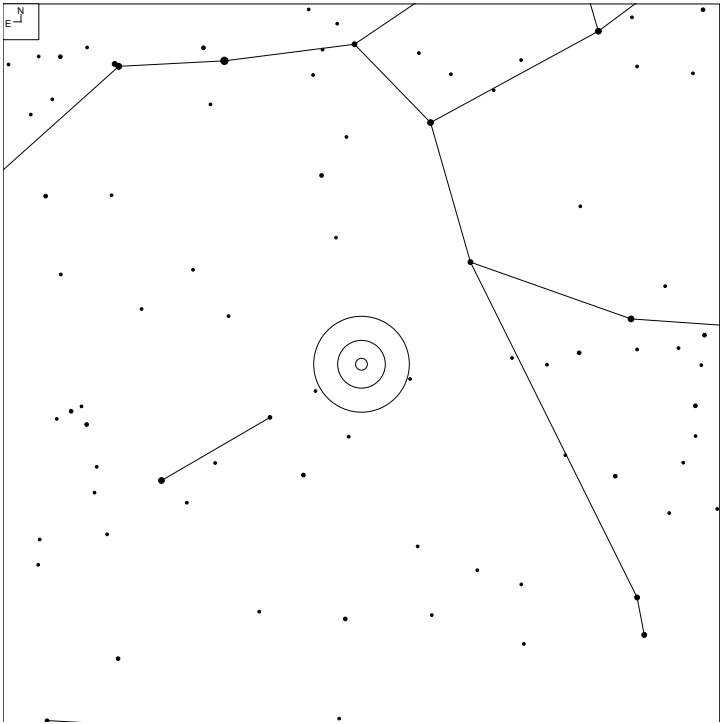


7 8 9 10 11 12

Galaxy

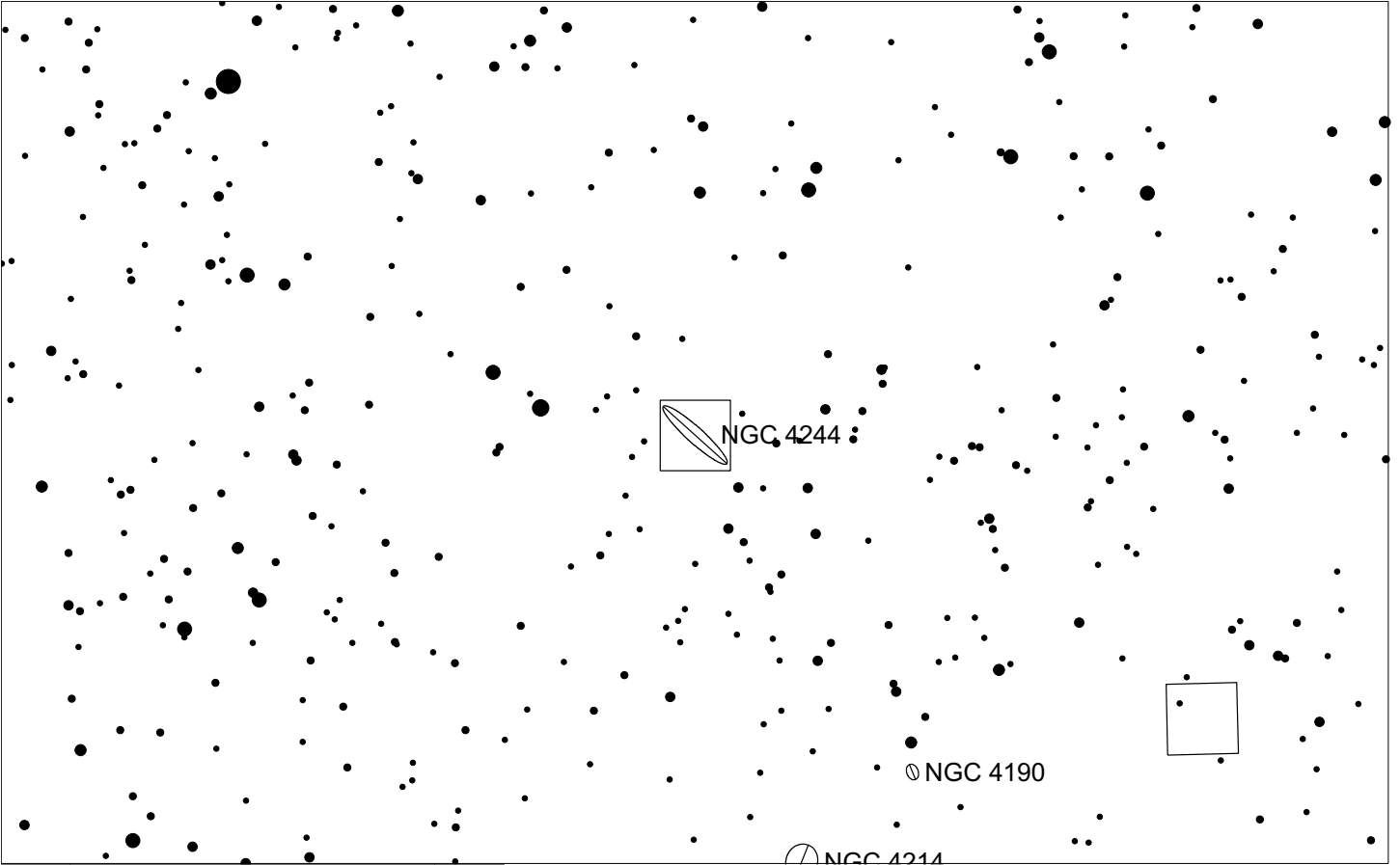
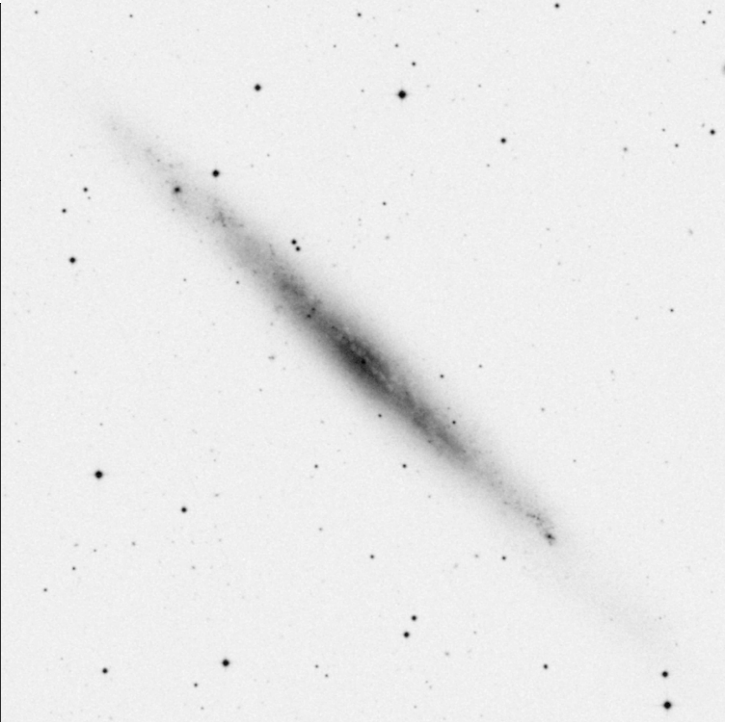
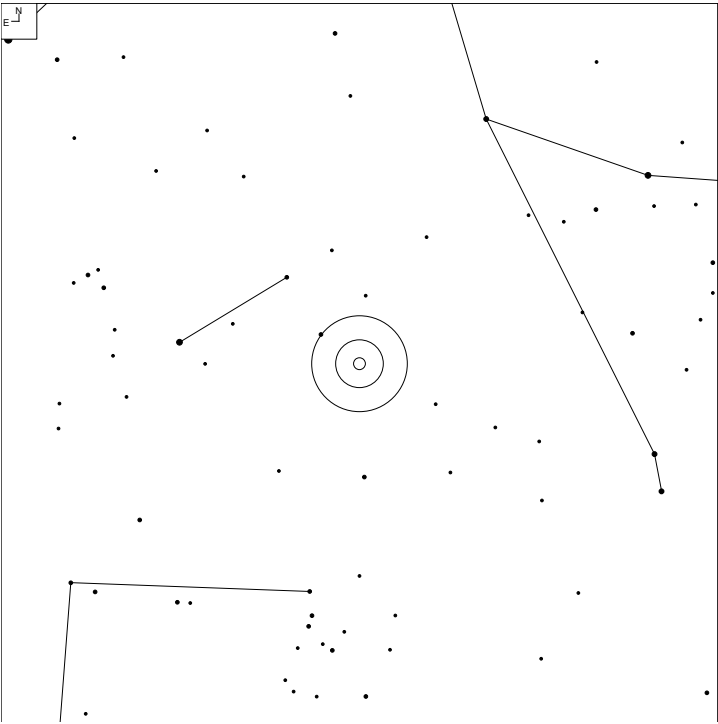
Name	RA	Dec	Mag	Size	Urano
NGC 5526	14h 13m 55.2s	+57°46'16"	14.3	1.9 x 0.2'	23L

NGC 4183 (Canes Venatici)



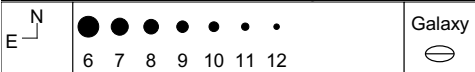
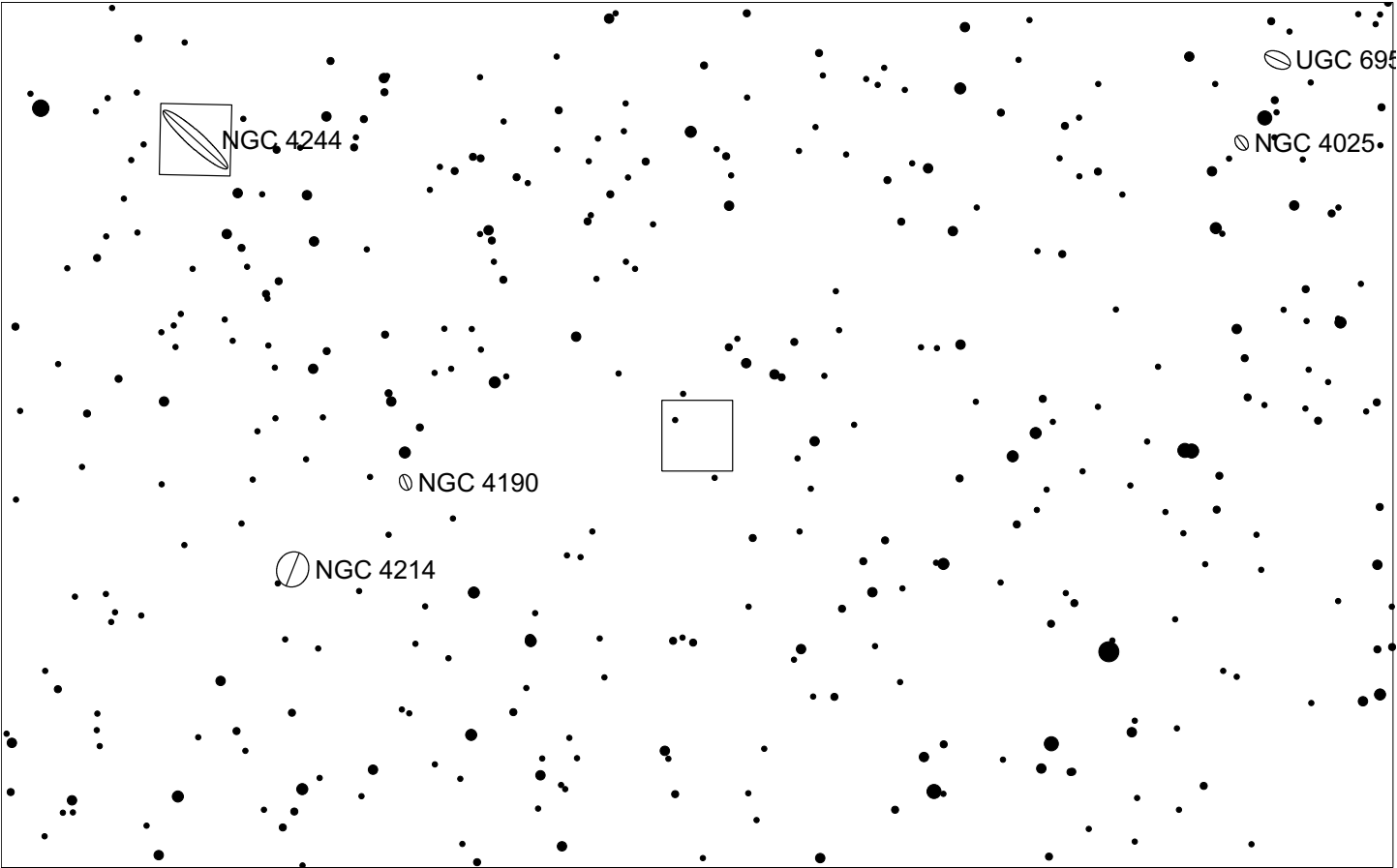
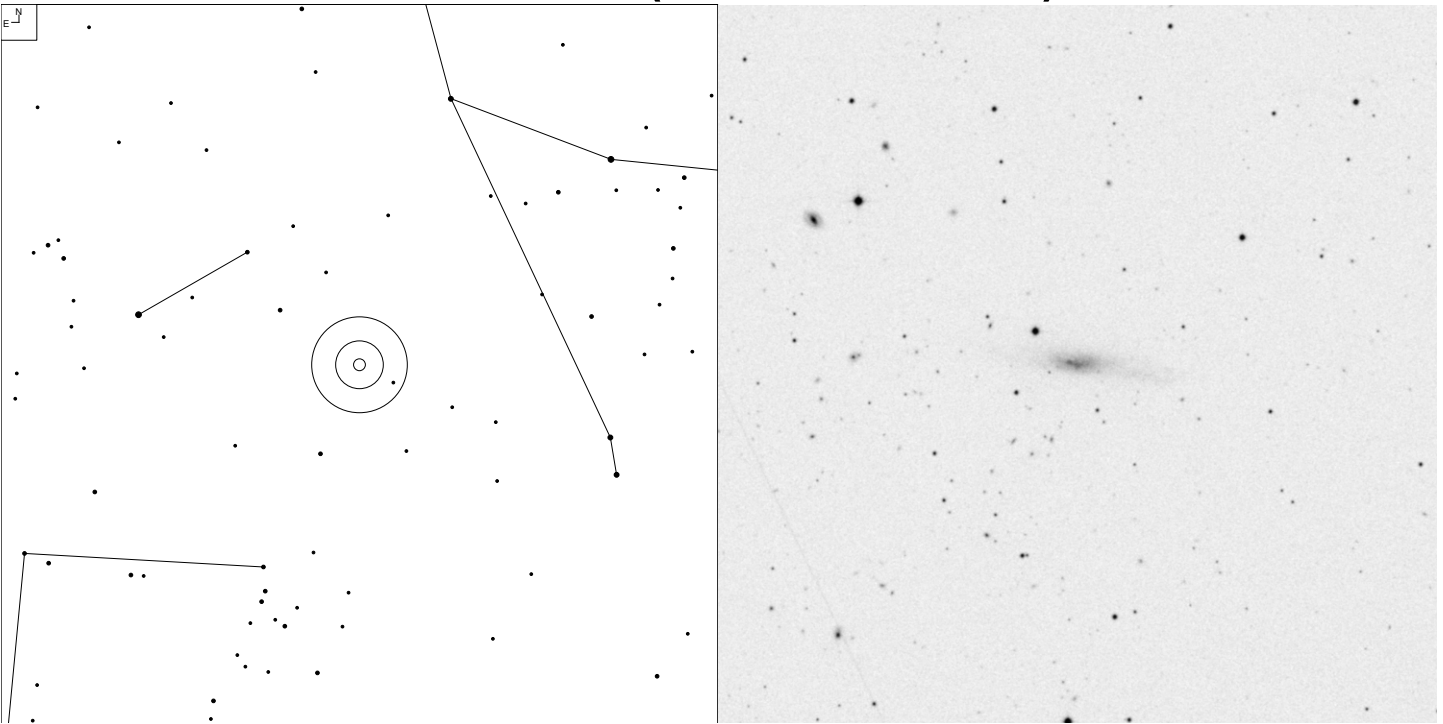
Name	RA	Dec	Mag	Size	Urano
NGC 4183	12h 13m 17.2s	+43°41'48"	12.9b	6.3 x 0.8'	37R

NGC 4244 (Canes Venatici)



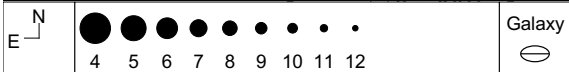
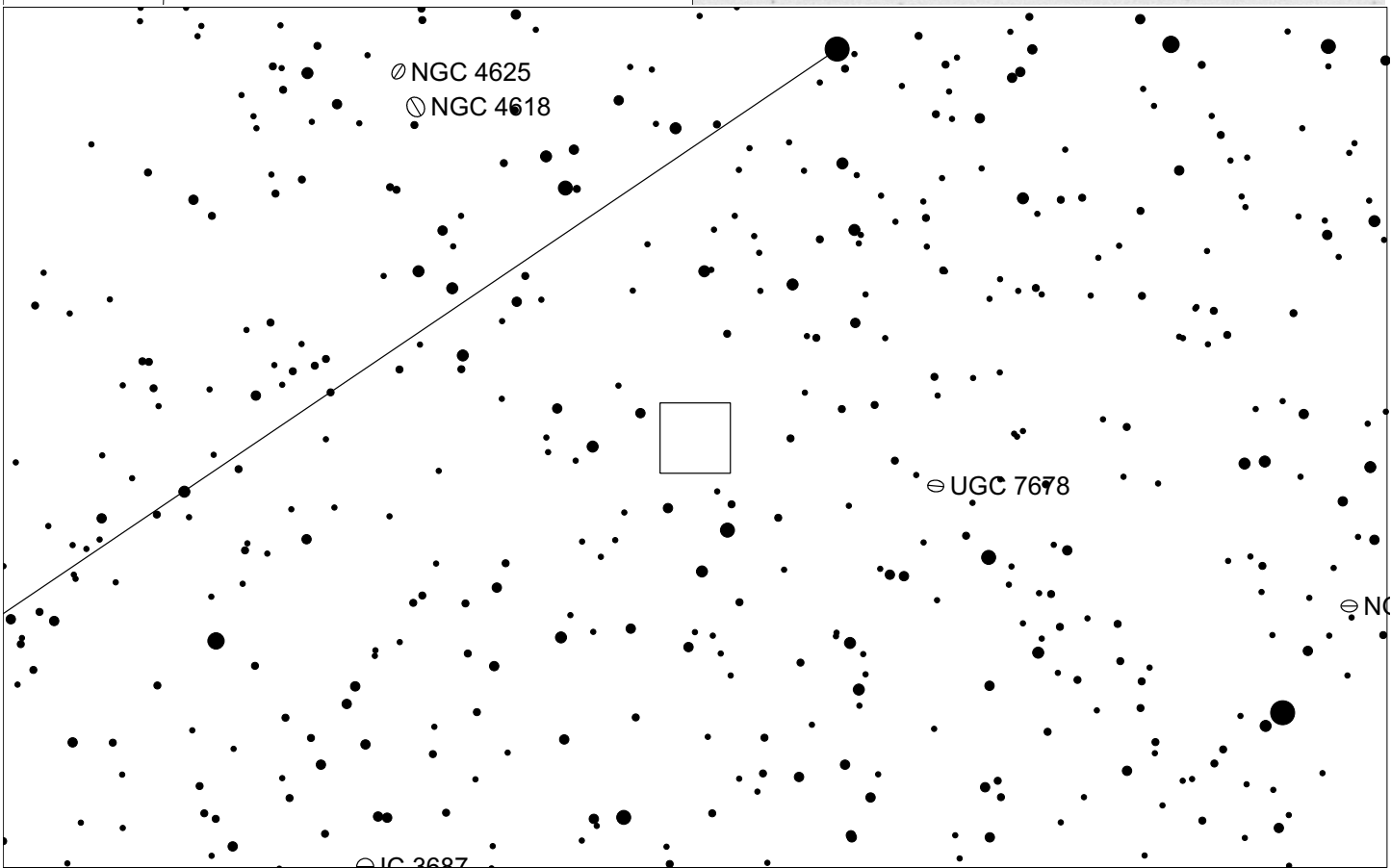
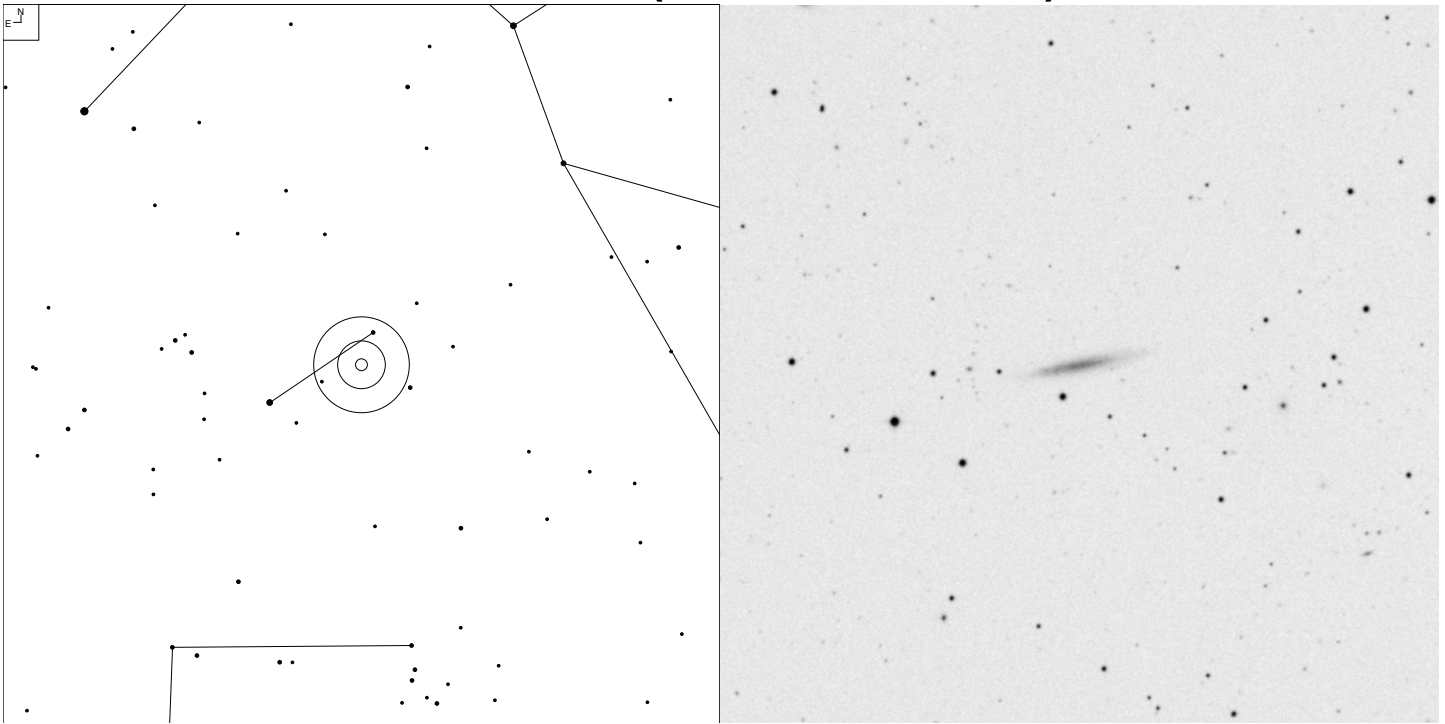
Name	RA	Dec	Mag	Size	Urano
NGC 4244	12h 17m 30.0s	+37°48'27"	10.3v	17.7 x 1.9'	54L

UGC 7125 (Canes Venatici)



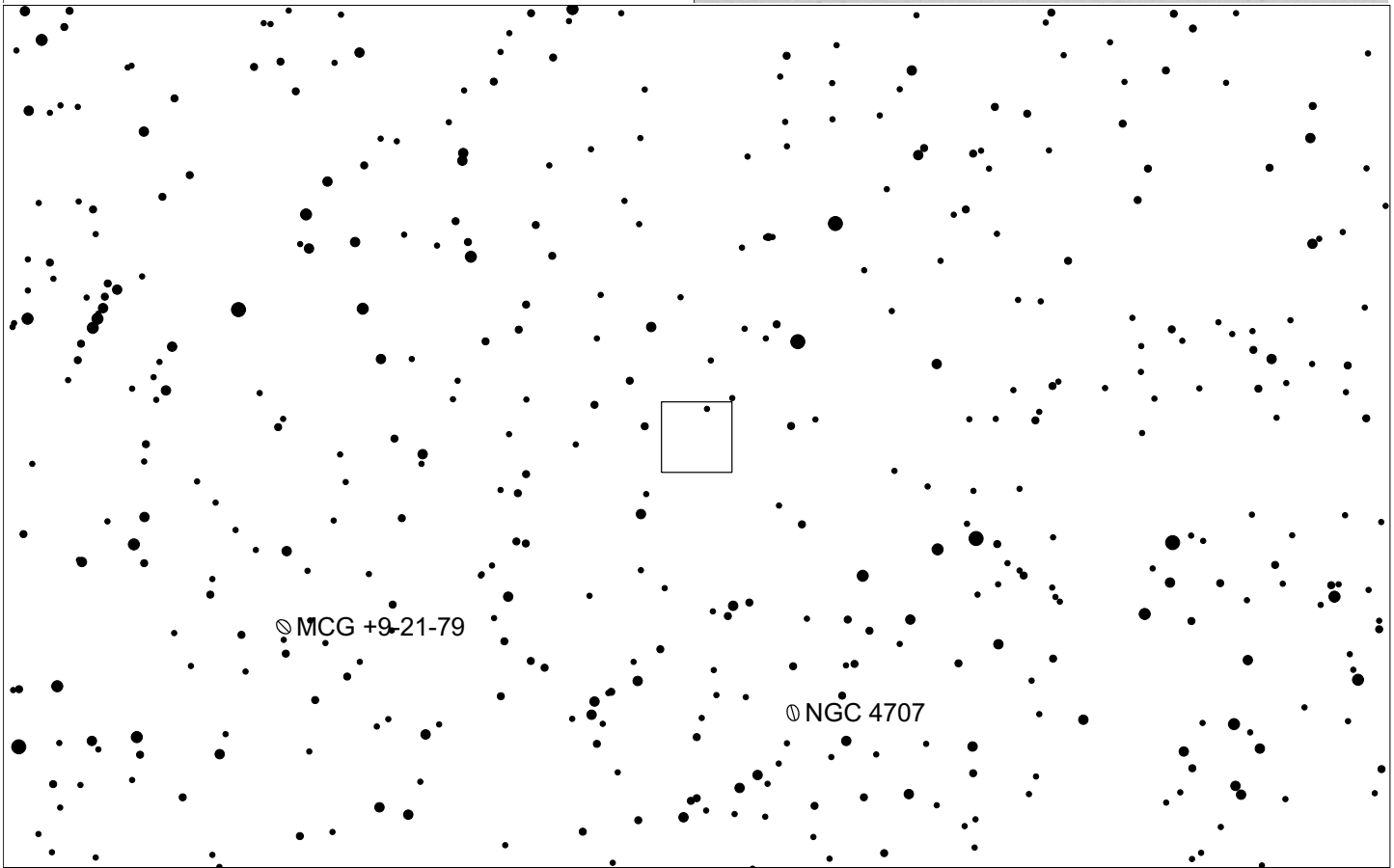
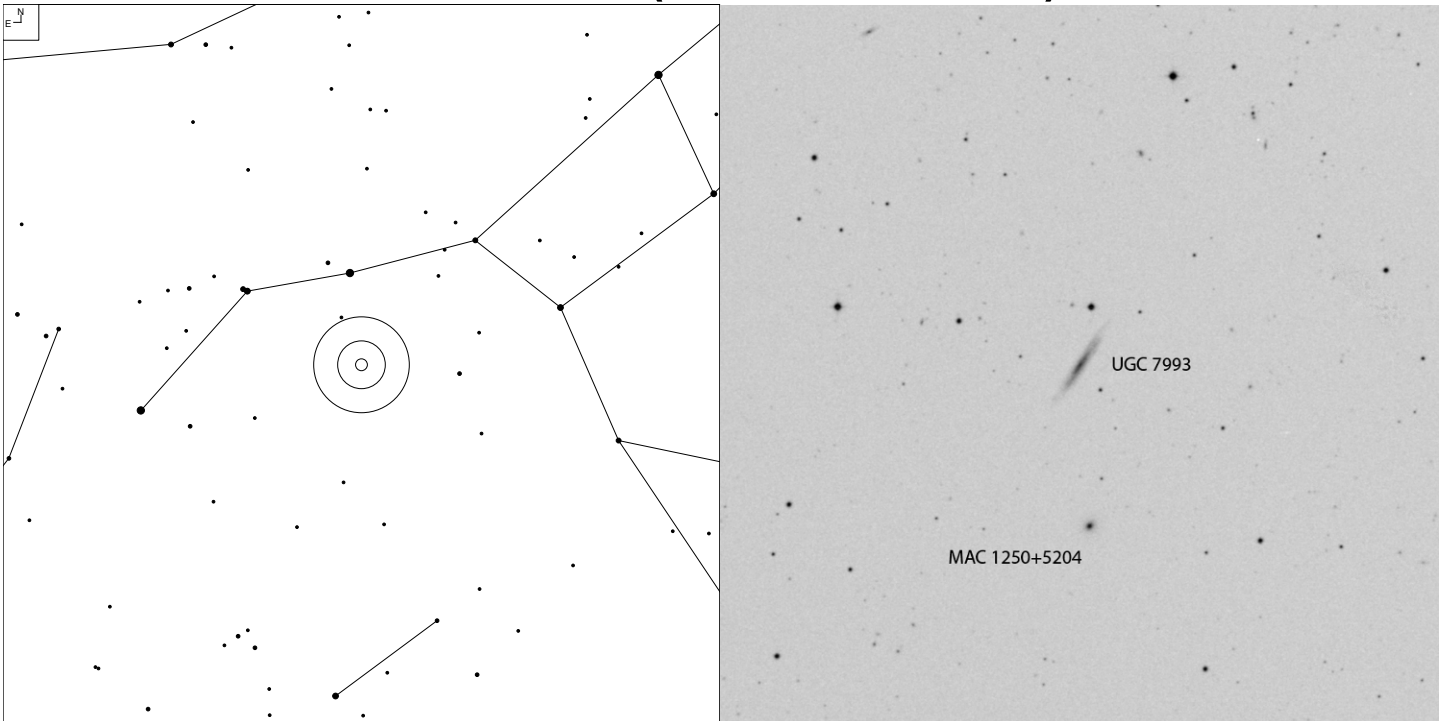
Name	RA	Dec	Mag	Size	Urano
UGC 7125	12h 08m 42.0s	+36°48'11"	14.2p	4.7 x 0.7'	54L

UGC 7774 (Canes Venatici)



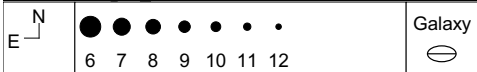
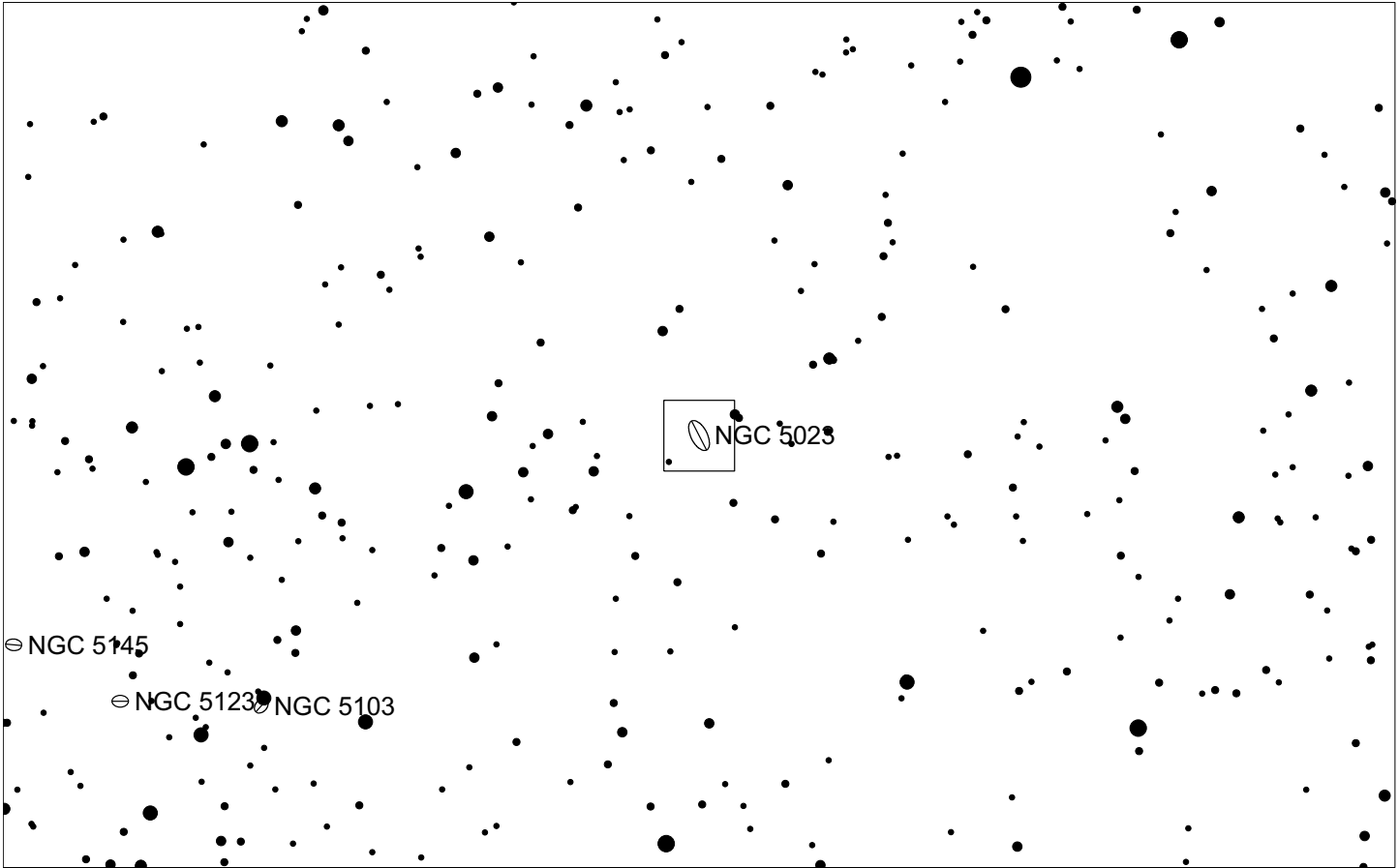
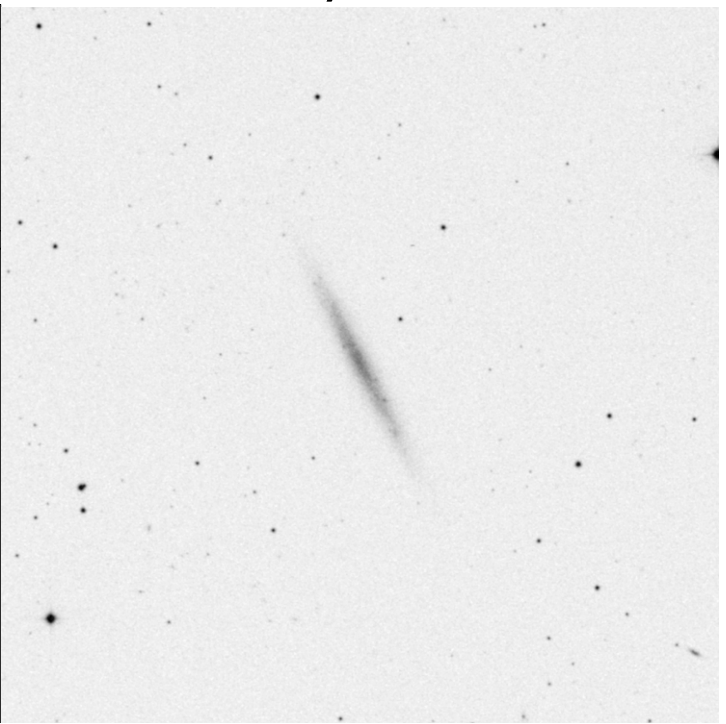
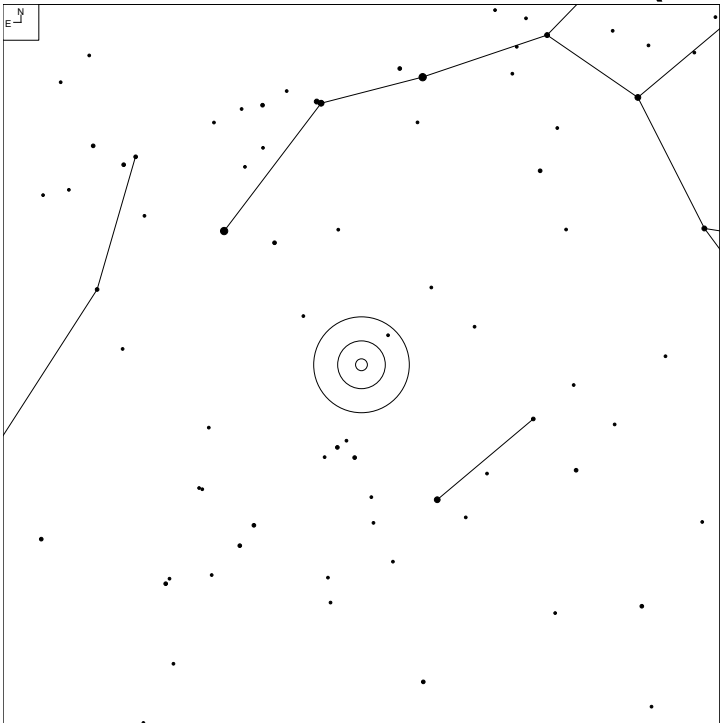
Name	RA	Dec	Mag	Size	Urano
UGC 7774	12h 36m 24.0s	+40°00'18"	14.8p	3.8 x 0.5'	54L

UGC 7993 (Canes Venatici)



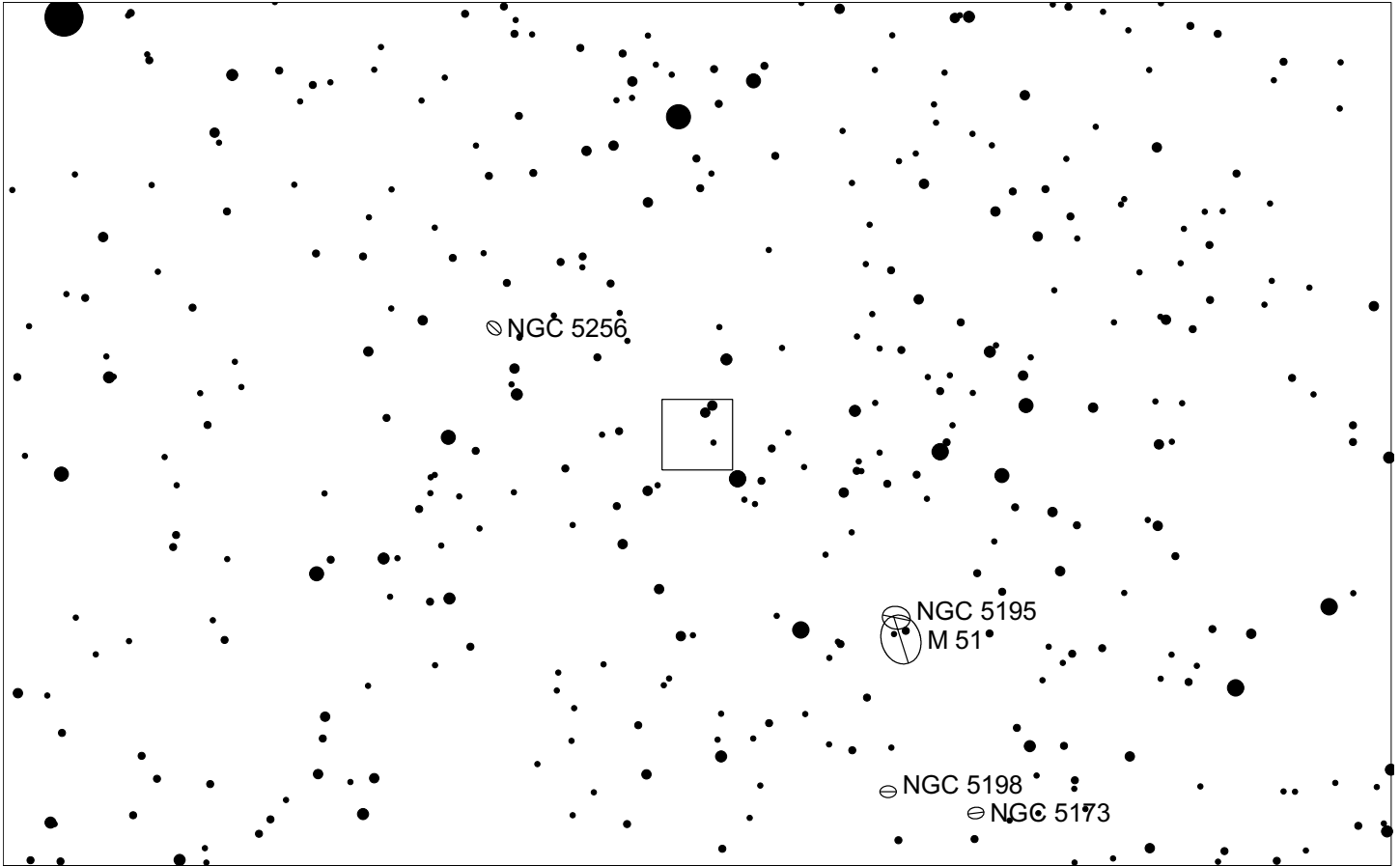
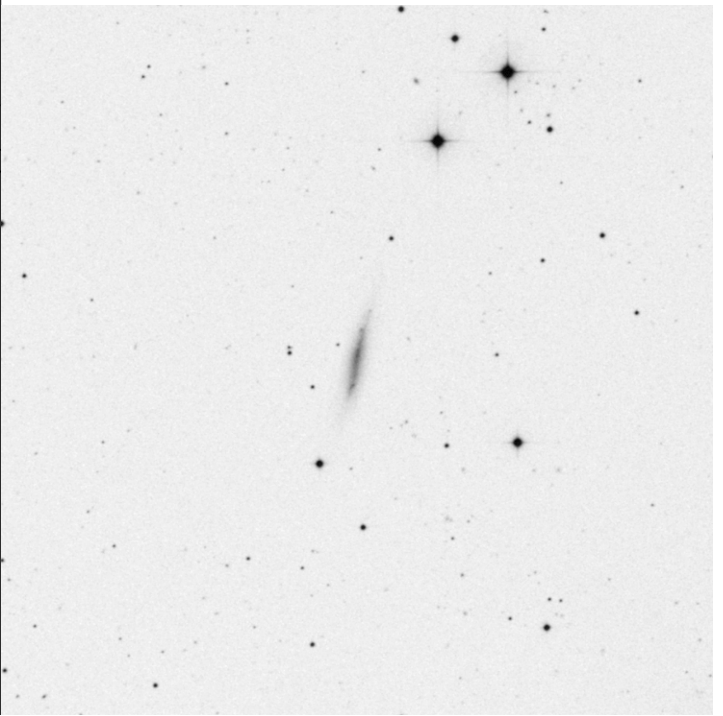
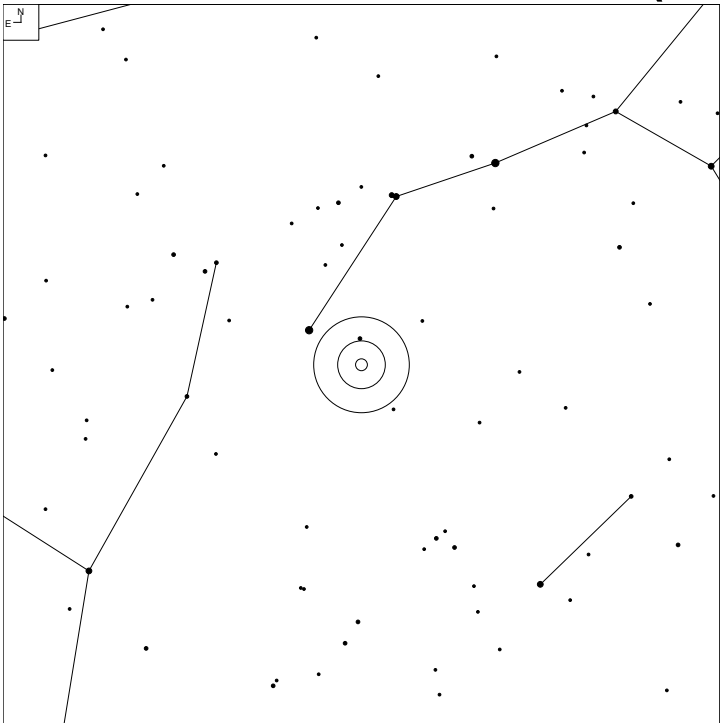
Name	RA	Dec	Mag	Size	Urano
UGC 7993	12h 50m 31.2s	+52°07'23"	15.1p	2.3 x 0.4'	24L

NGC 5023 (Canes Venatici)



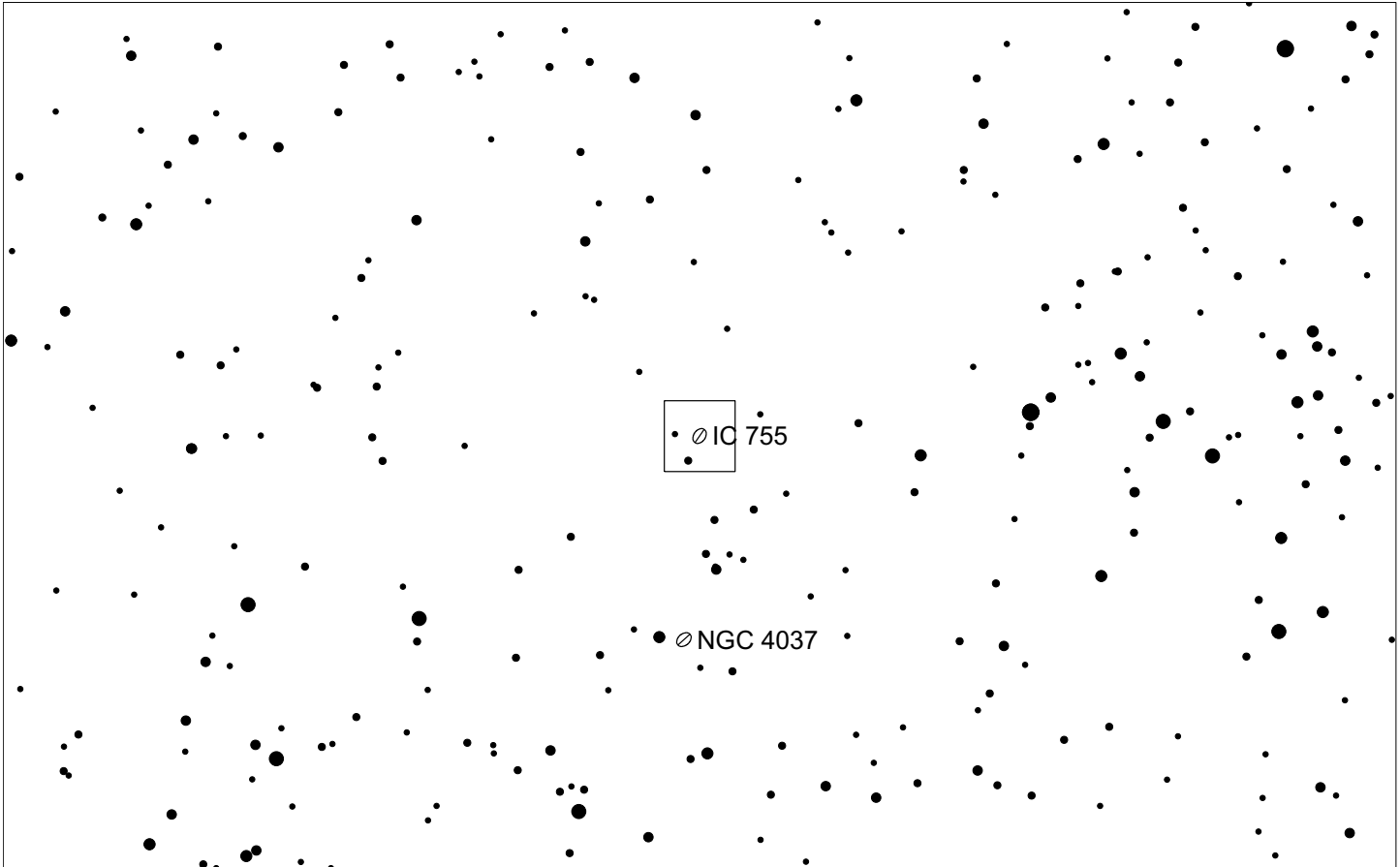
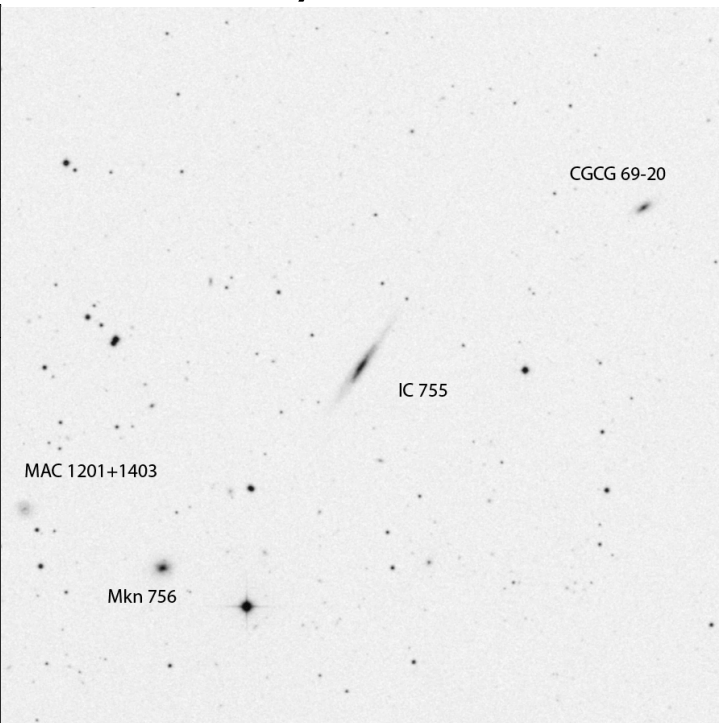
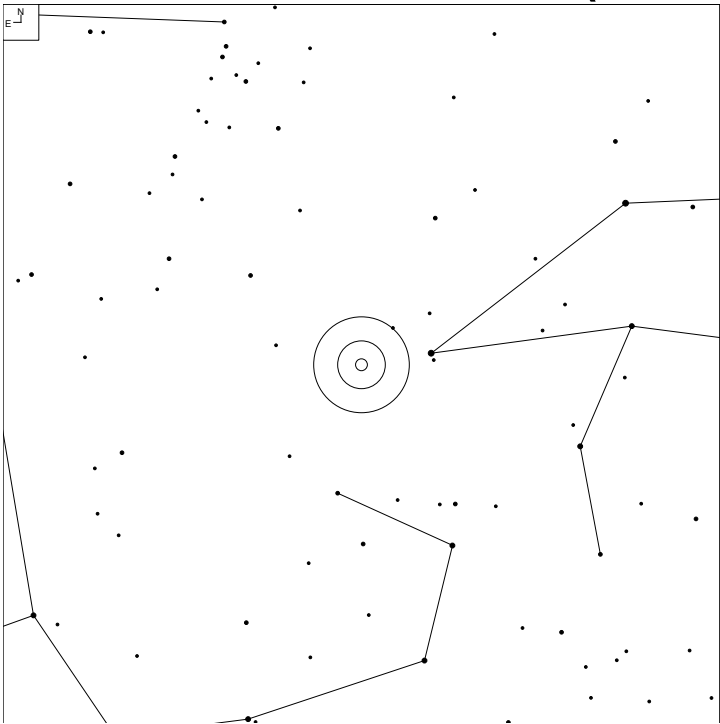
Name	RA	Dec	Mag	Size	Urano
NGC 5023	13h 12m 12.0s	+44°02'19"	12.9b	6.7 x 0.7'	37L

NGC 5229 (Canes Venatici)



Name	RA	Dec	Mag	Size	Urano
NGC 5229	13h 34m 03.1s	+47°54'50"	14.3p	3.8 x 0.5'	37L

IC 755 (Coma Berenices)

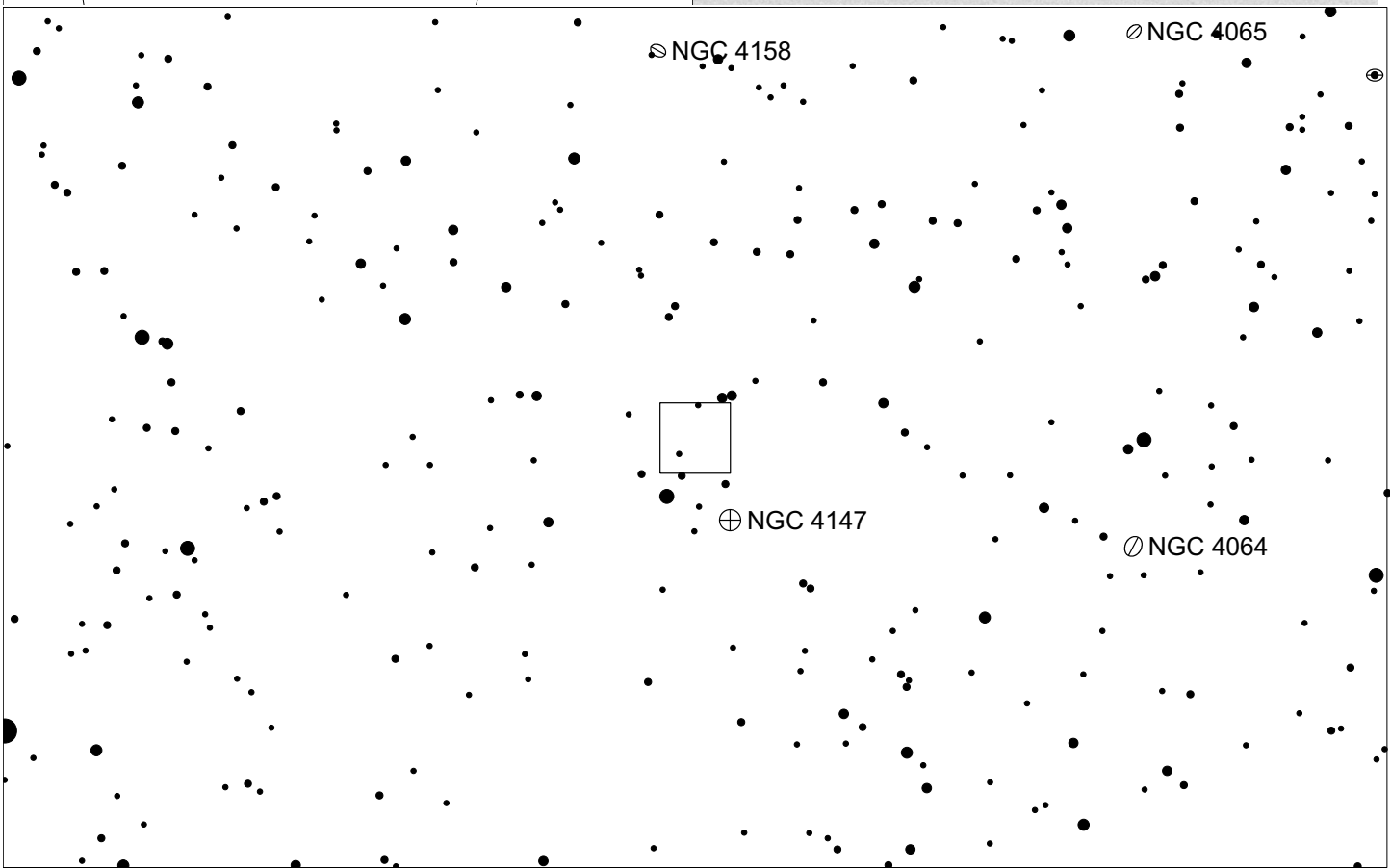
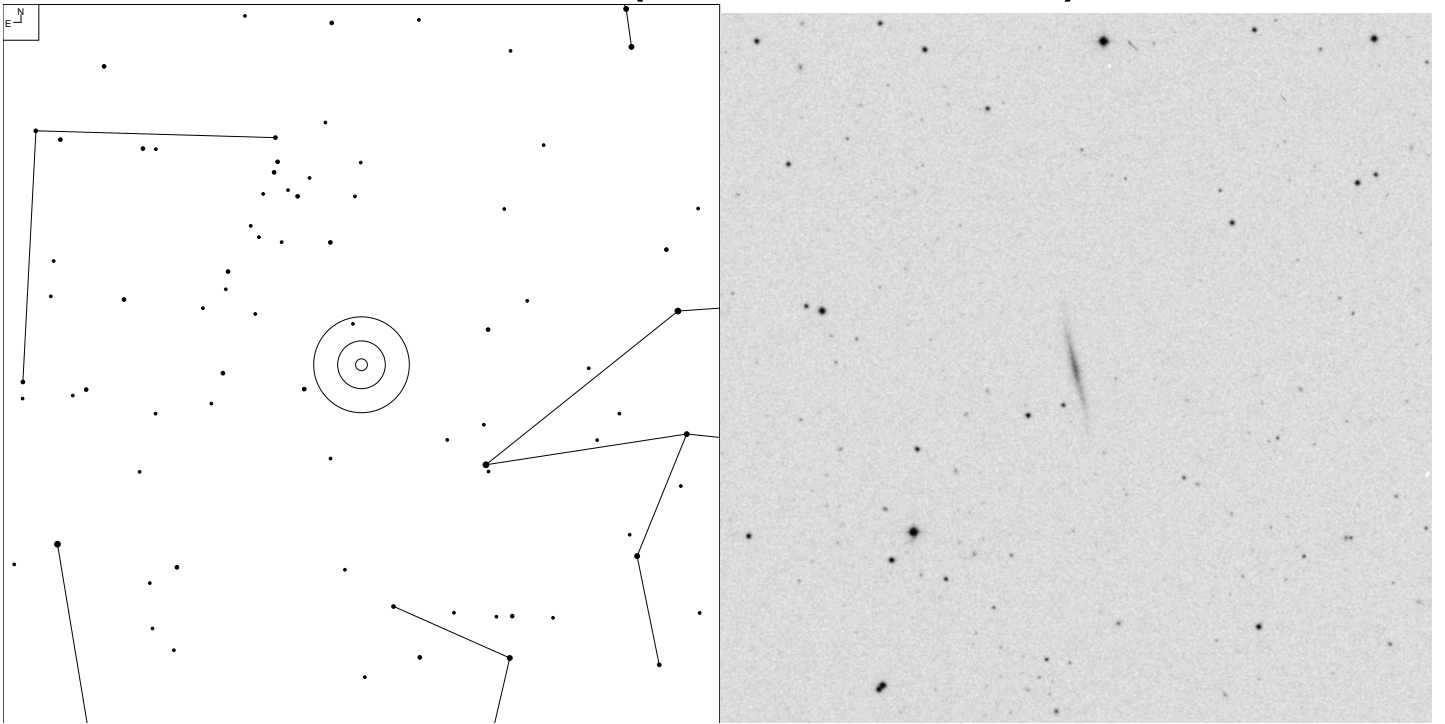


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Galaxy

Name	RA	Dec	Mag	Size	Urano
IC 755	12h 01m 10.3s	+14°06'20"	13.3v	2.4 x 0.3'	91L

UGC 7170 (Coma Berenices)

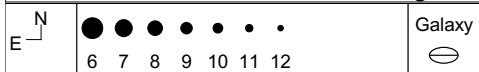
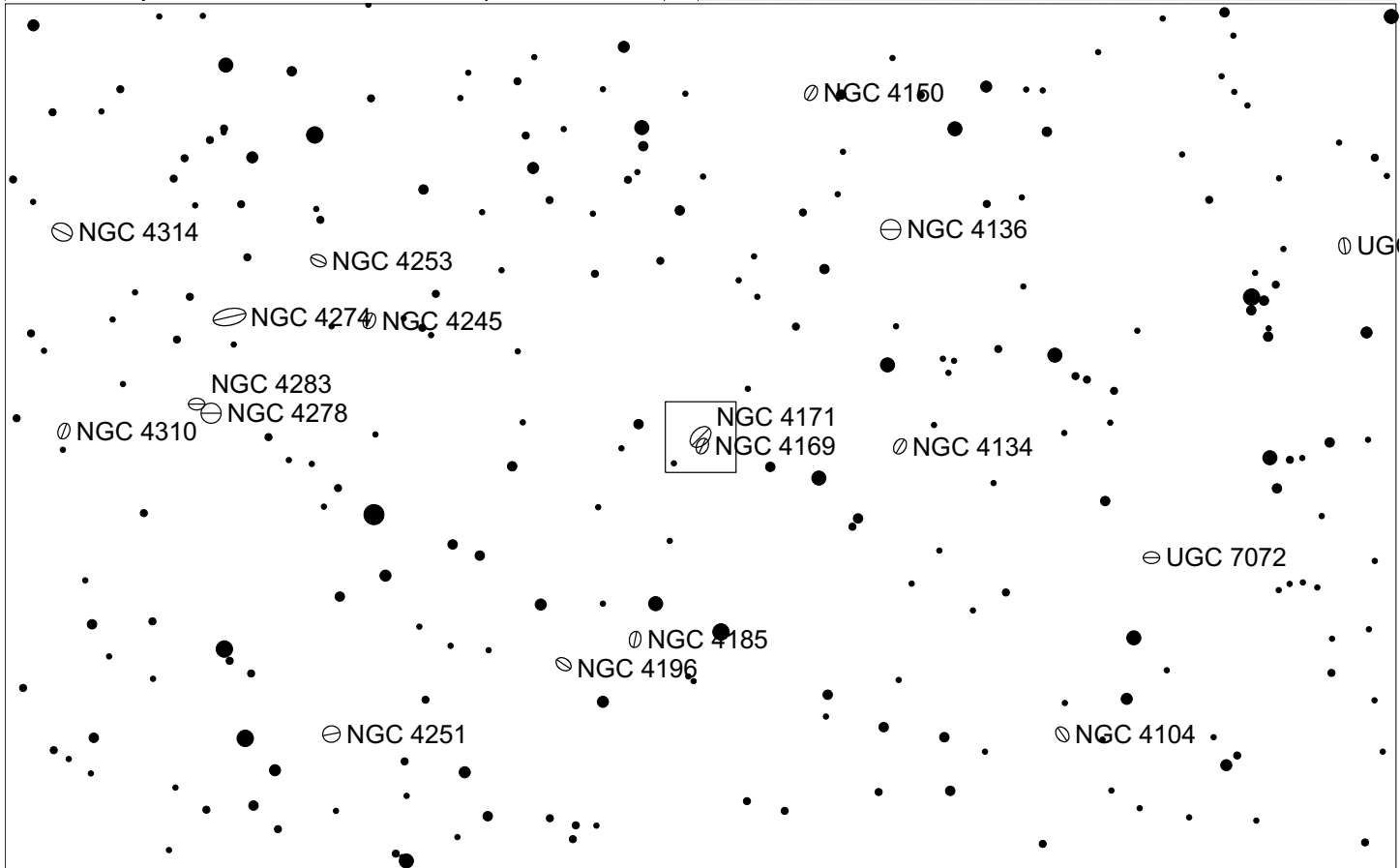
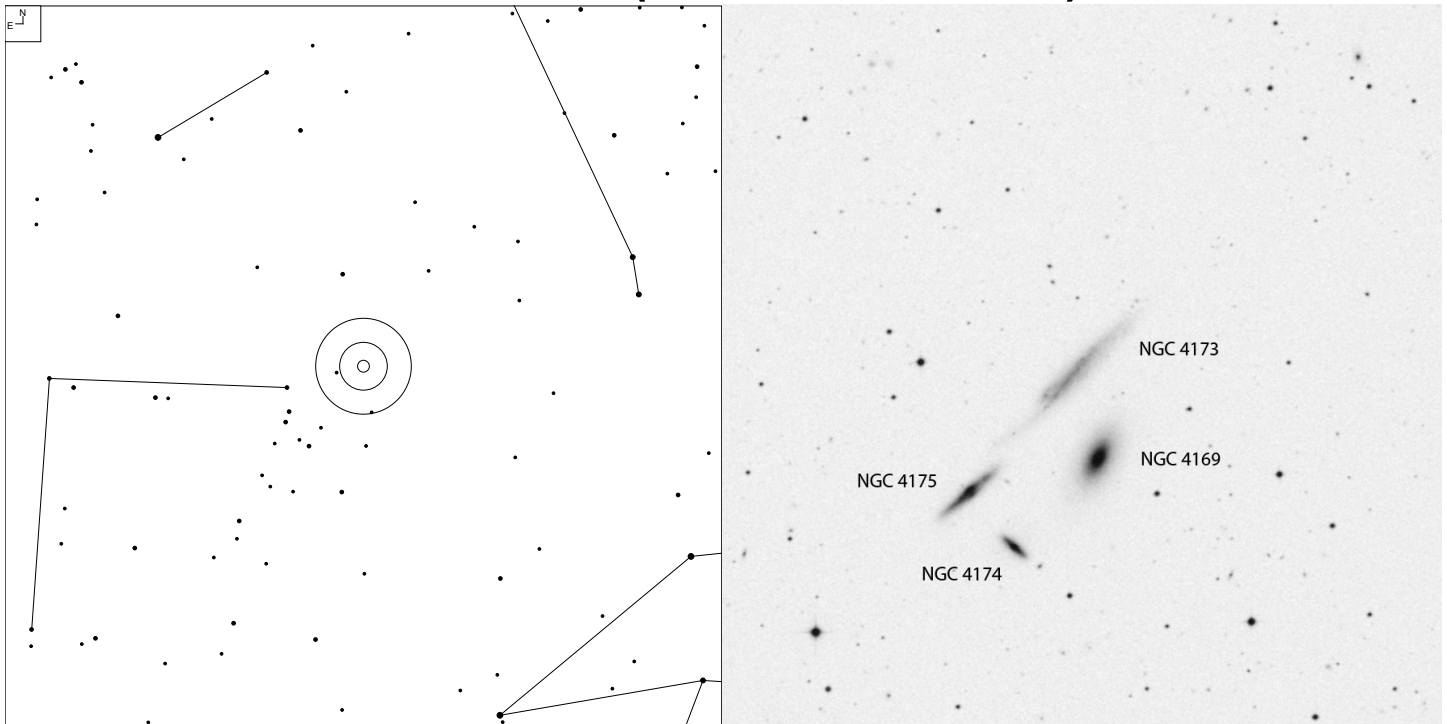


5 6 7 8 9 10 11 12

Galaxy Globular +

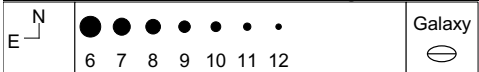
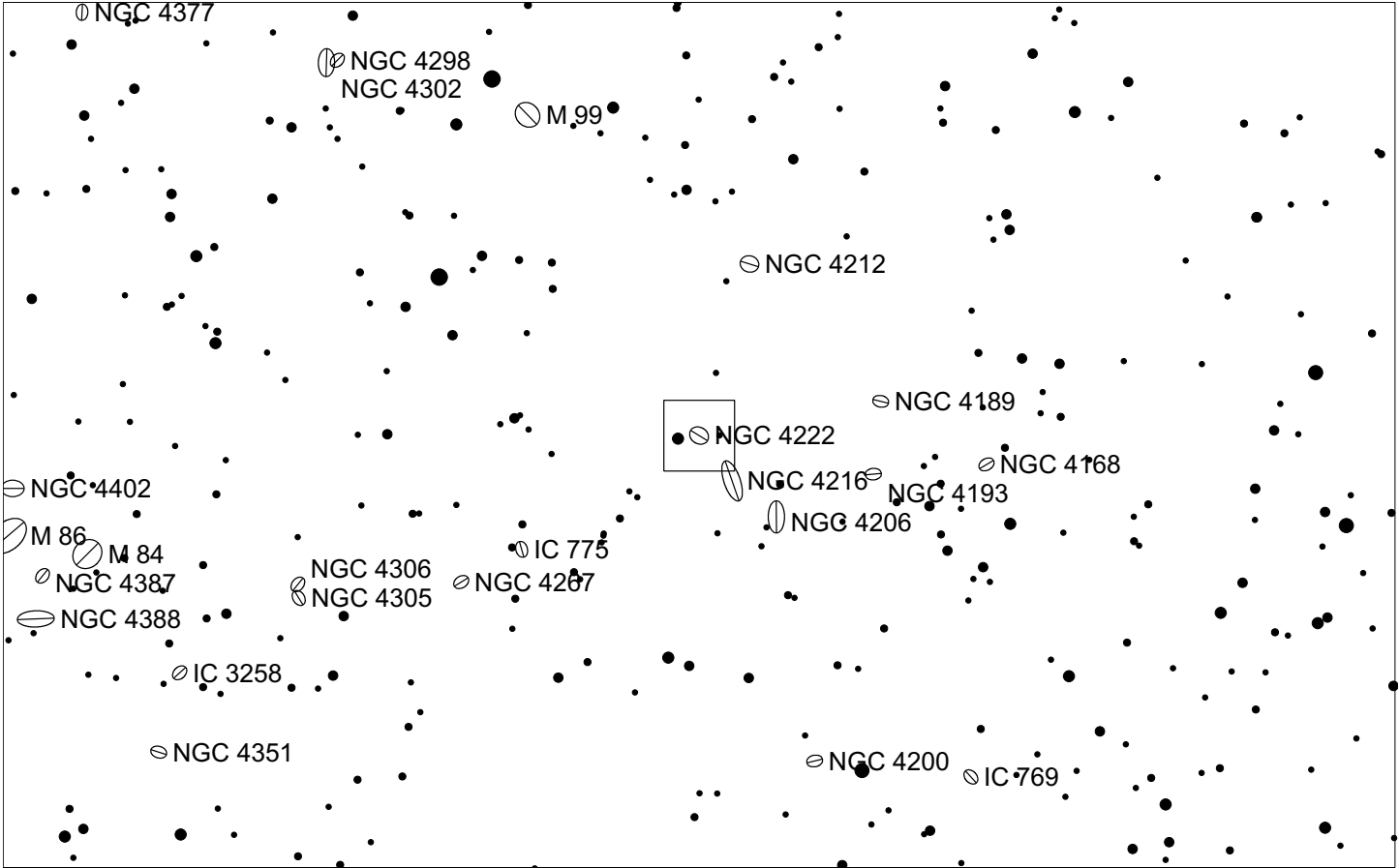
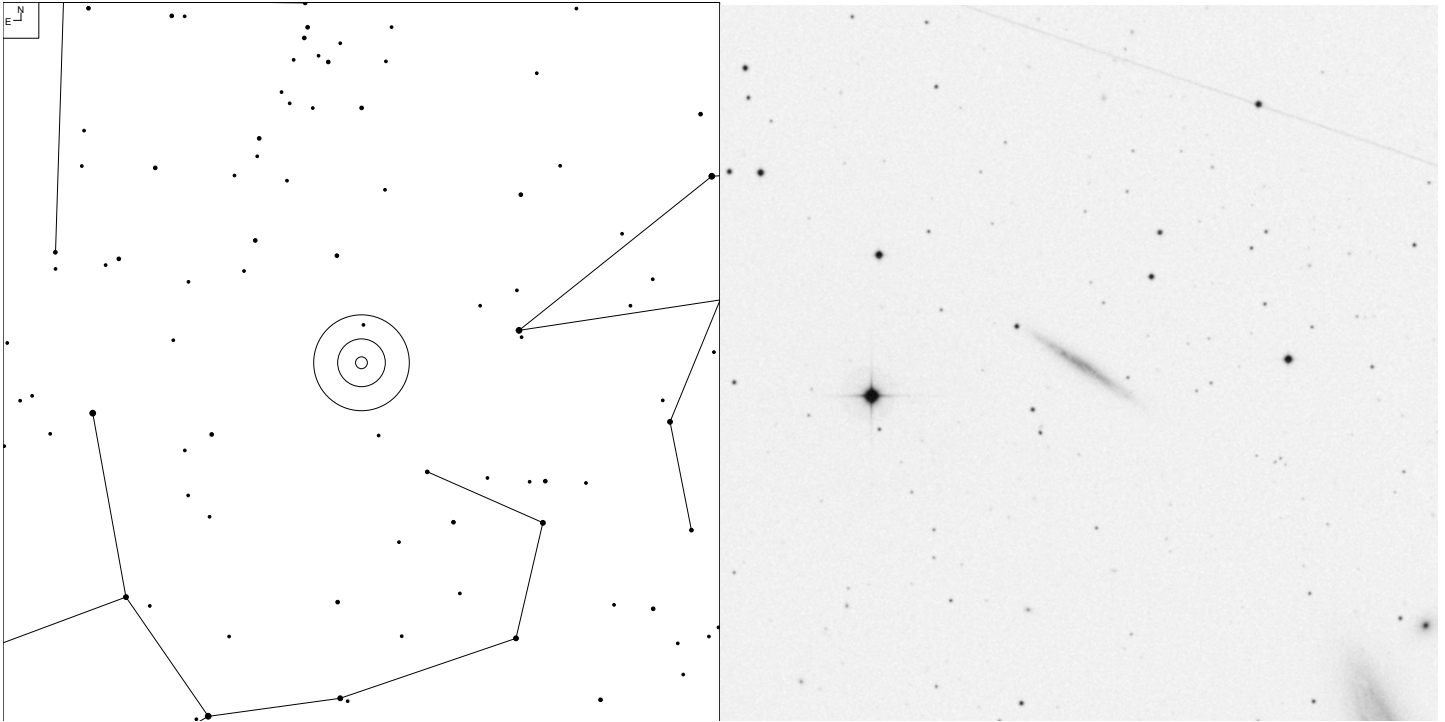
Name	RA	Dec	Mag	Size	Urano
UGC 7170	12h 10m 36.0s	+18°49'44"	15.0p	3.0 x 0.2'	72L

NGC 4173 (Coma Berenices)



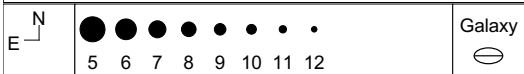
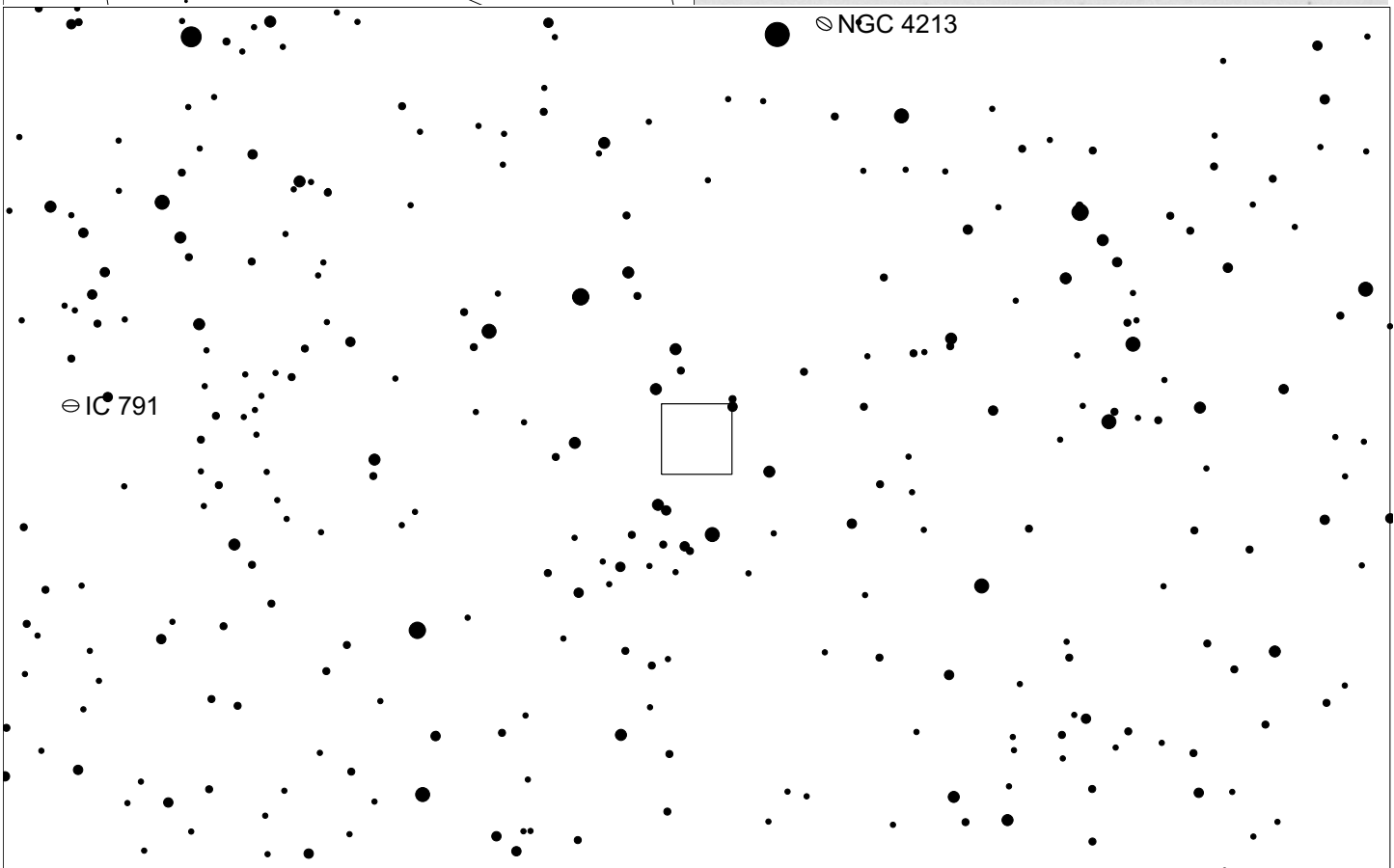
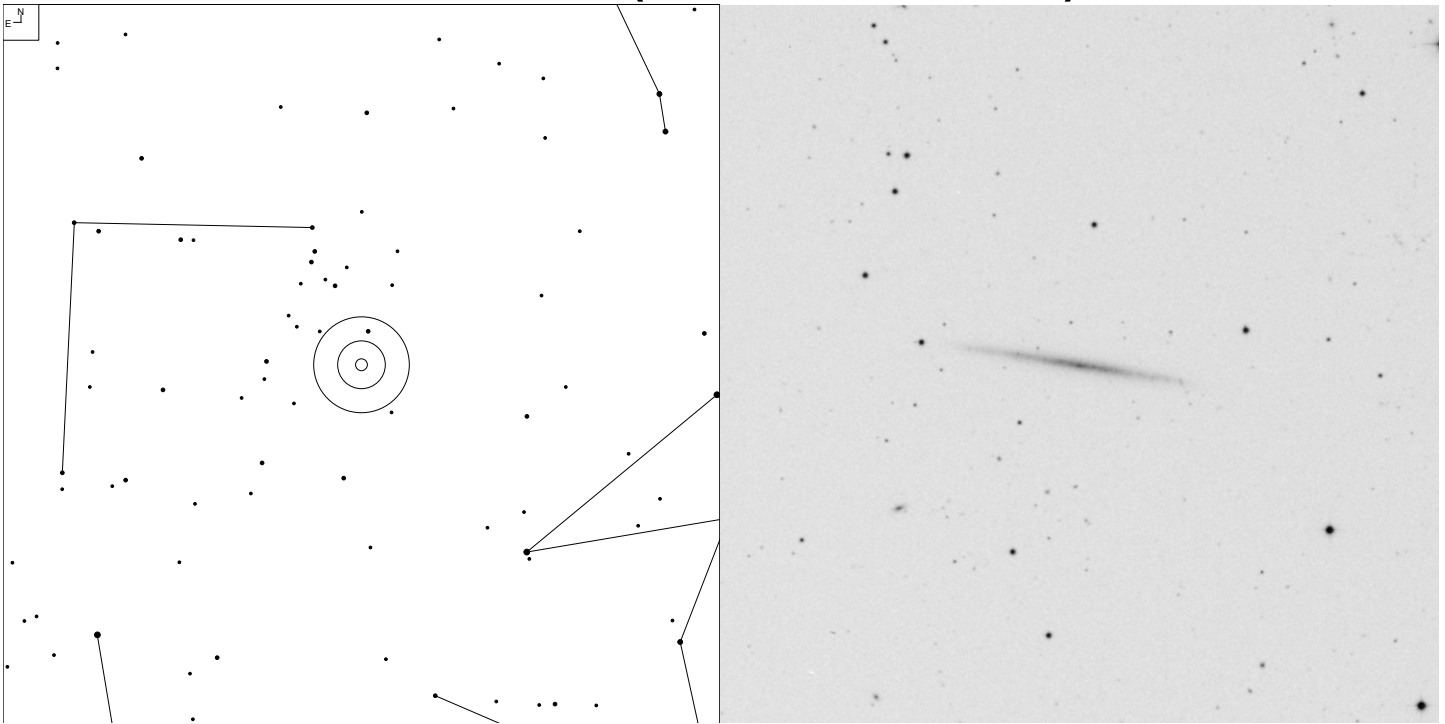
Name	RA	Dec	Mag	Size	Urano
NGC 4173	12h 12m 20.9s	+29°12'28"	13.6b	5.0 x 0.7'	72L

NGC 4222 (Coma Berenices)



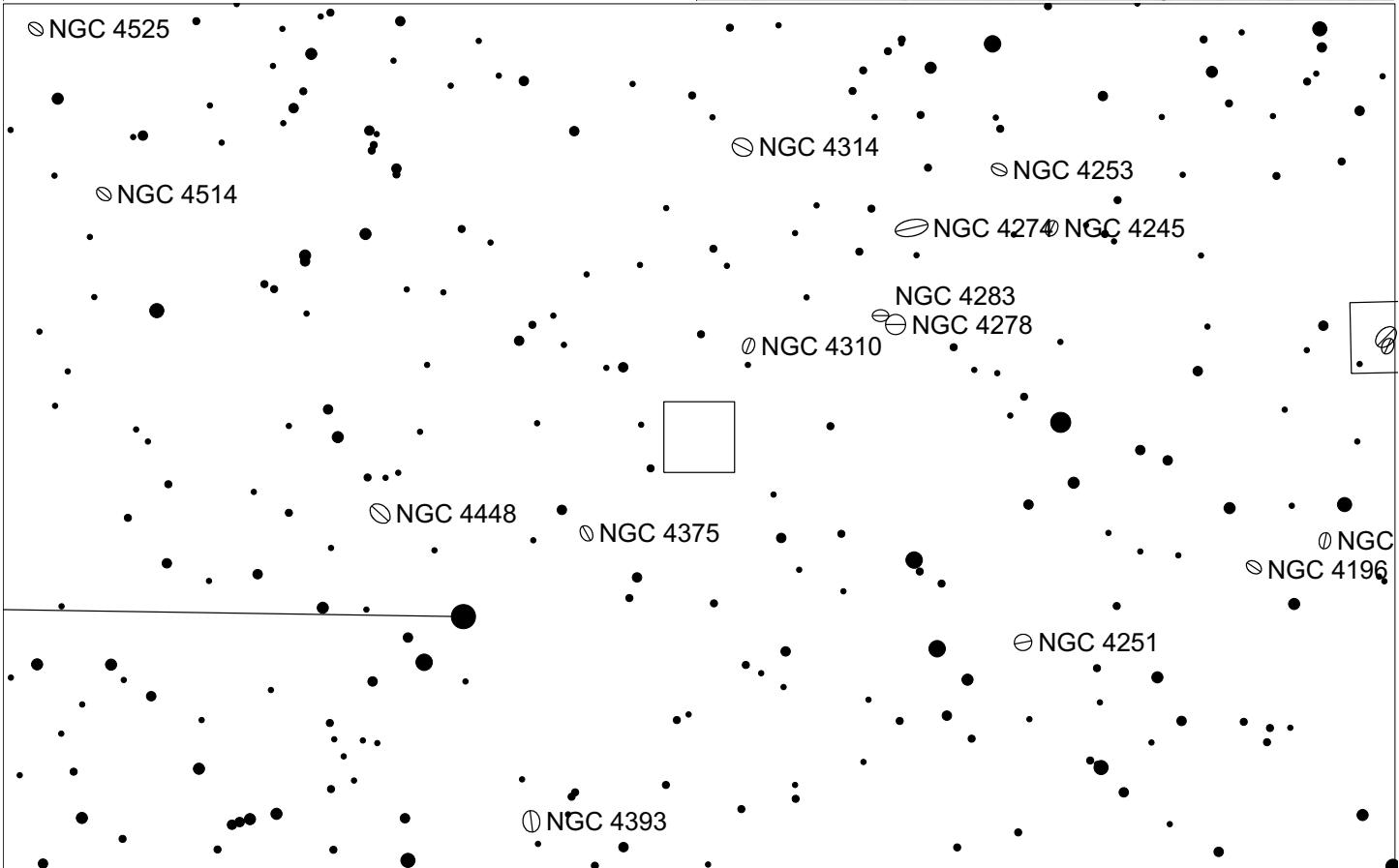
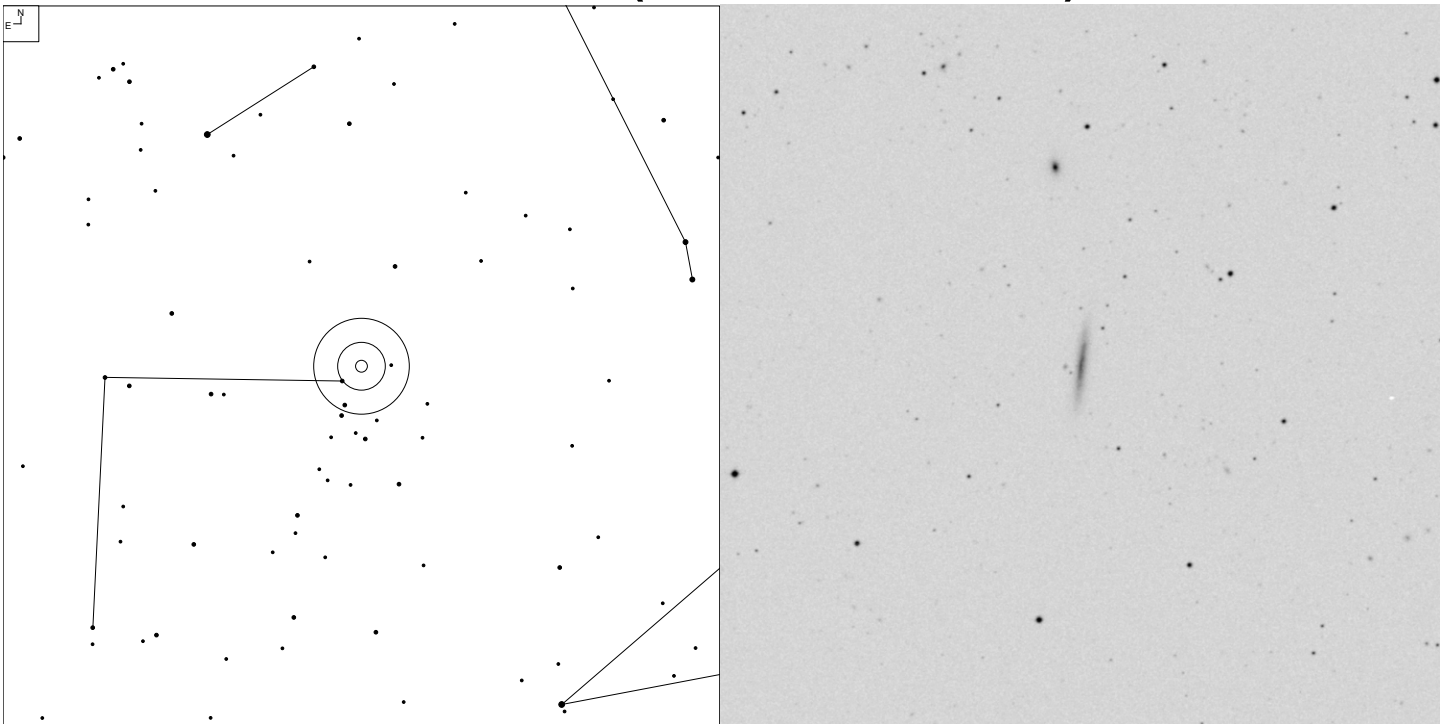
Name	RA	Dec	Mag	Size	Urano
NGC 4222	12h 16m 22.4s	+13°18'26"	13.9b	4.0 x 0.6'	91L

UGC 7321 (Coma Berenices)



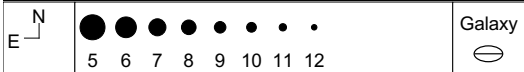
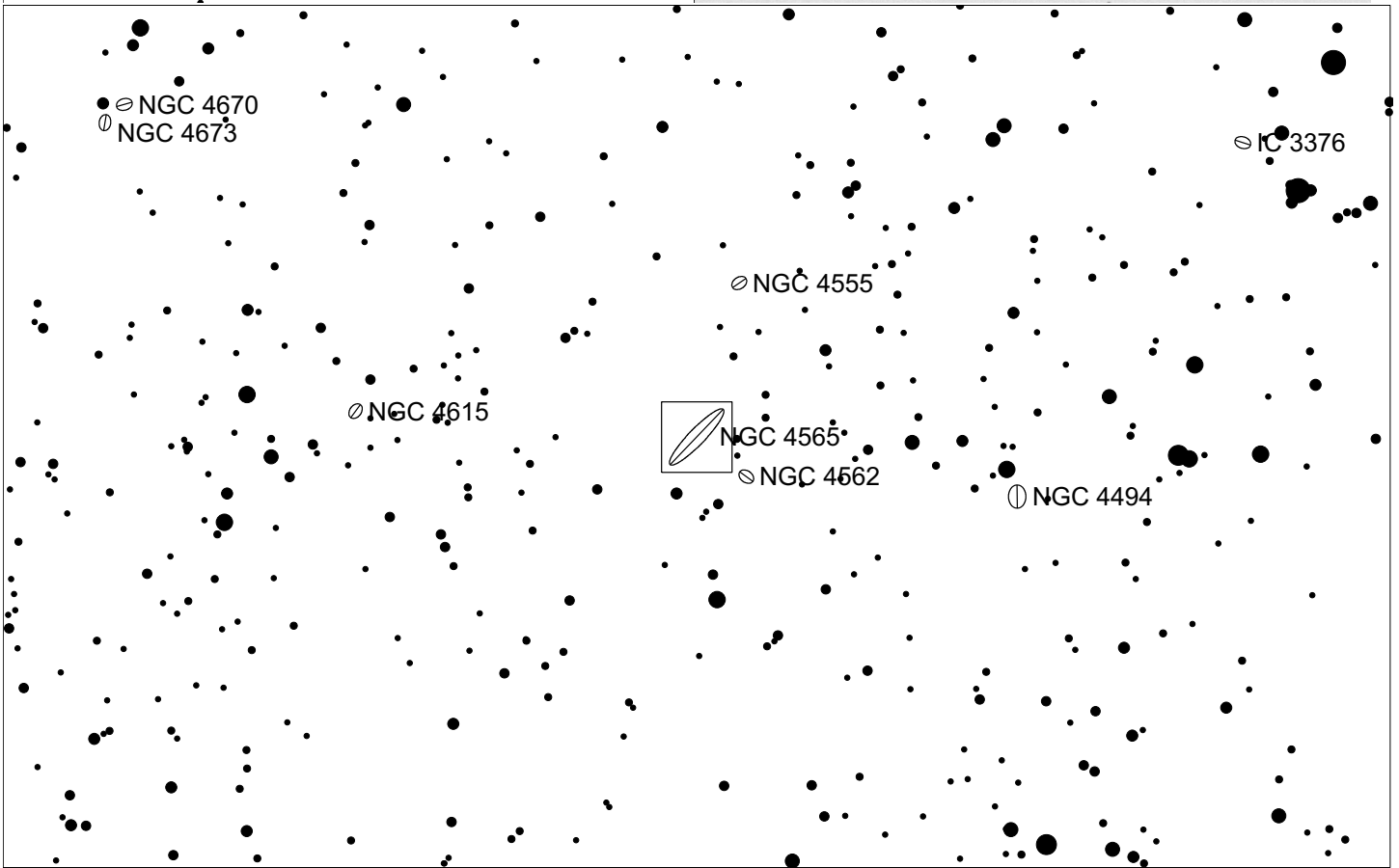
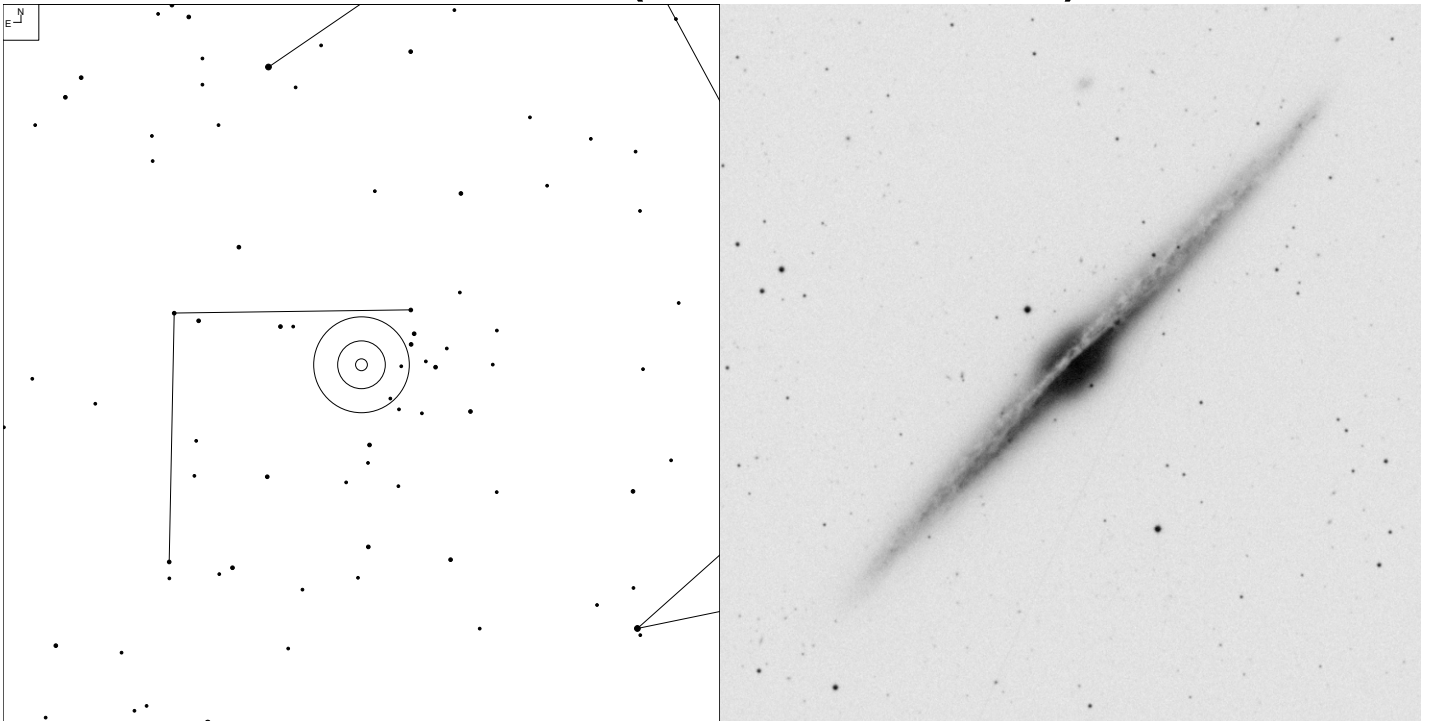
Name	RA	Dec	Mag	Size	Urano
UGC 7321	12h 17m 34.1s	+22°32'27"	14.2b	5.5 x 0.3'	72L

NGC 4338 (Coma Berenices)



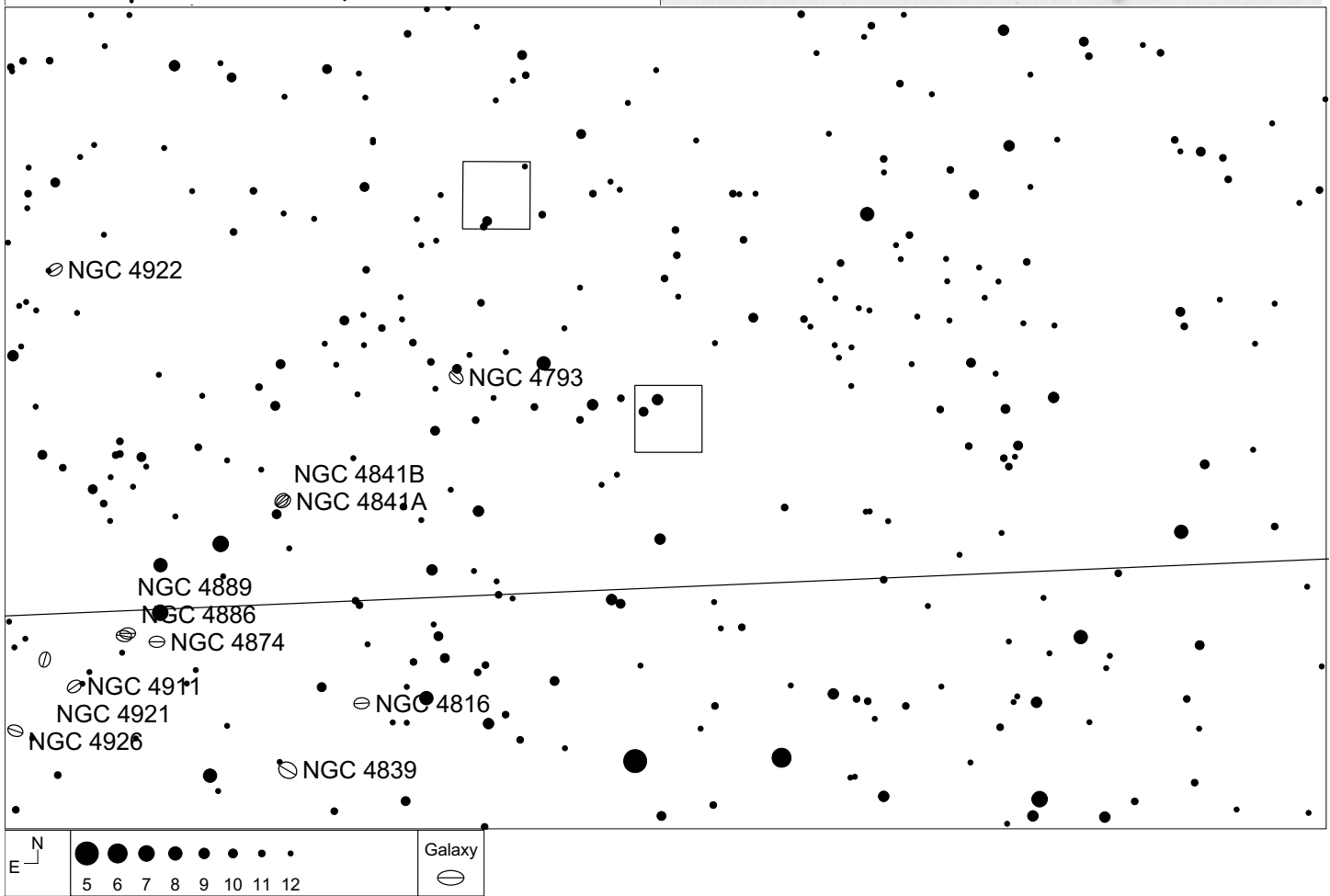
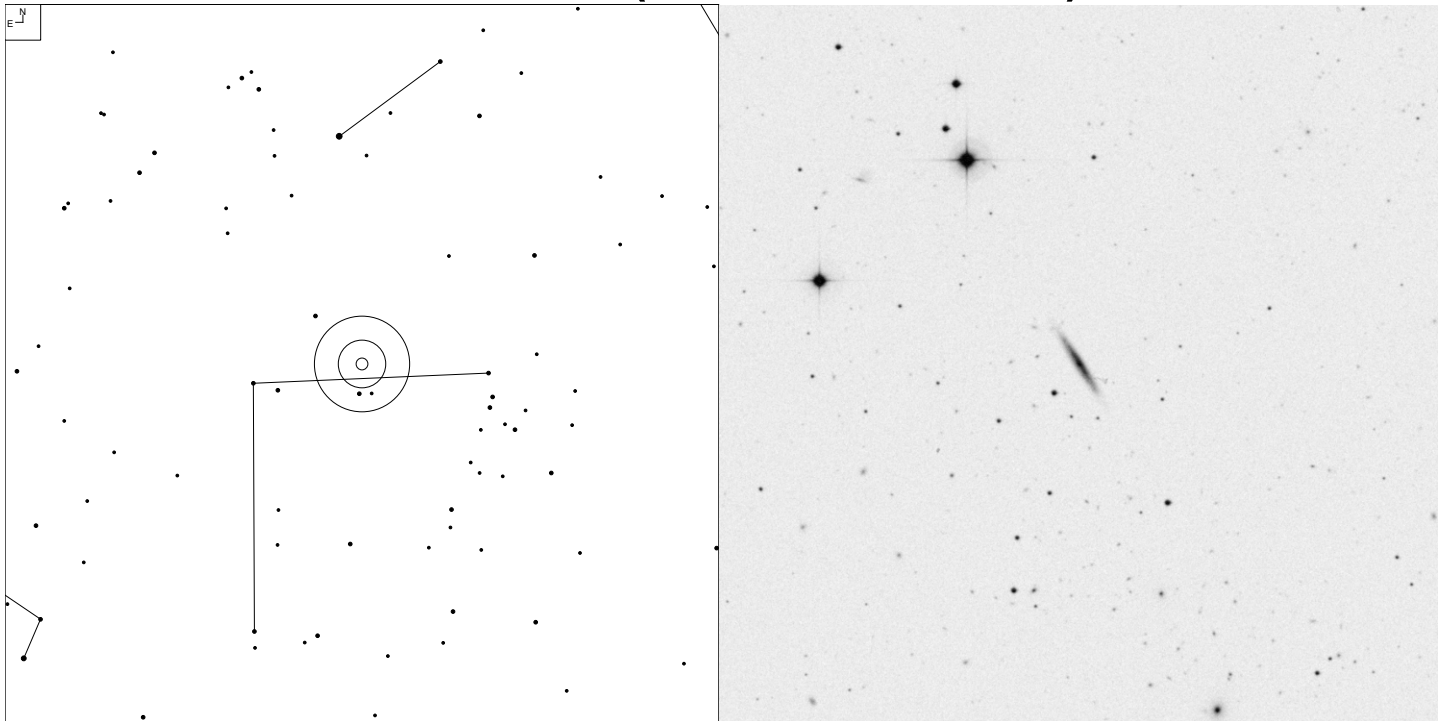
Name	RA	Dec	Mag	Size	Urano
NGC 4338	12h 23m 13.9s	+28°53'37"	15.3p	2.3 x 0.4'	72L

NGC 4565 (Coma Berenices)



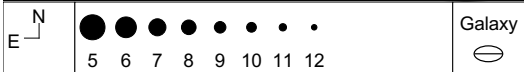
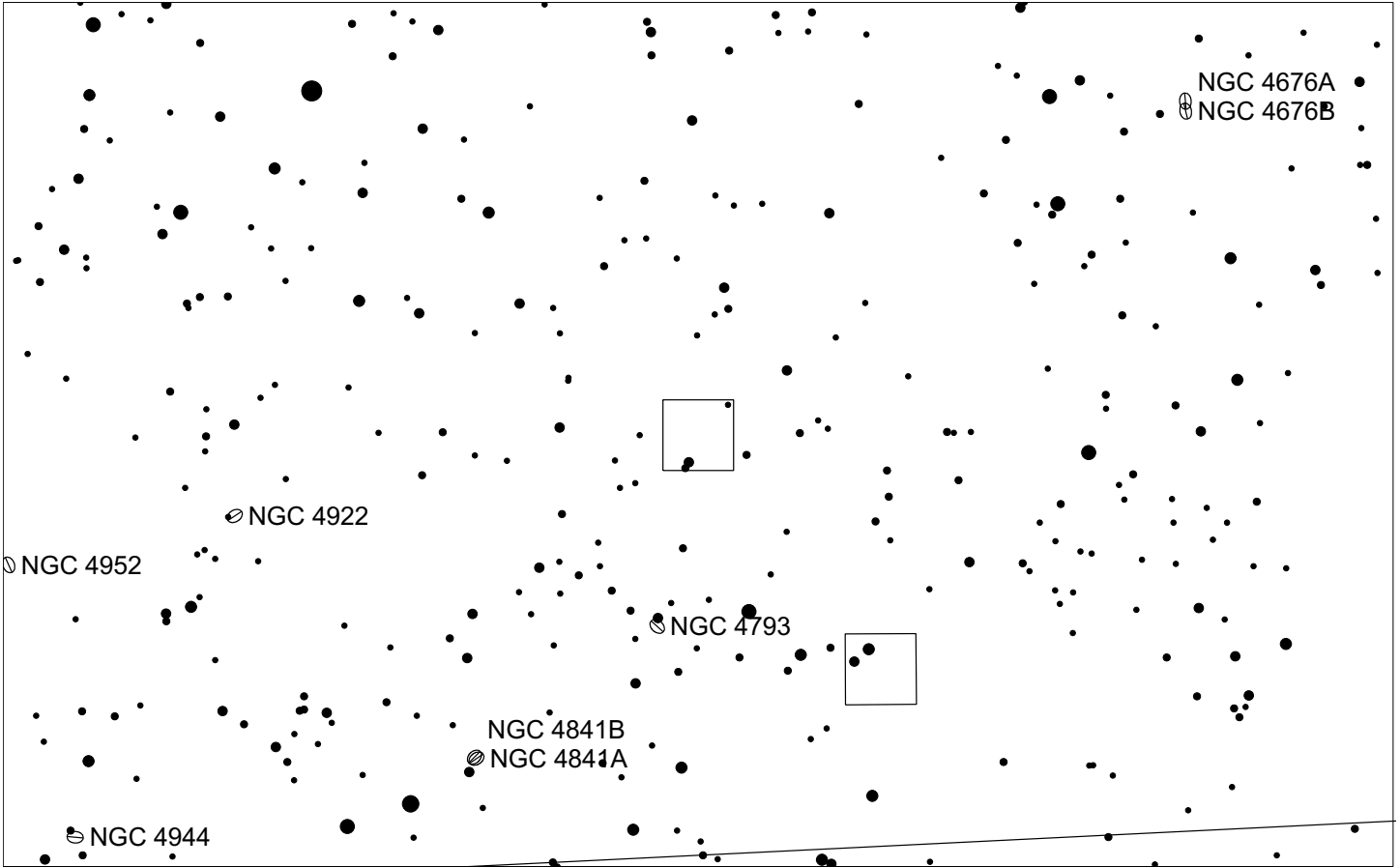
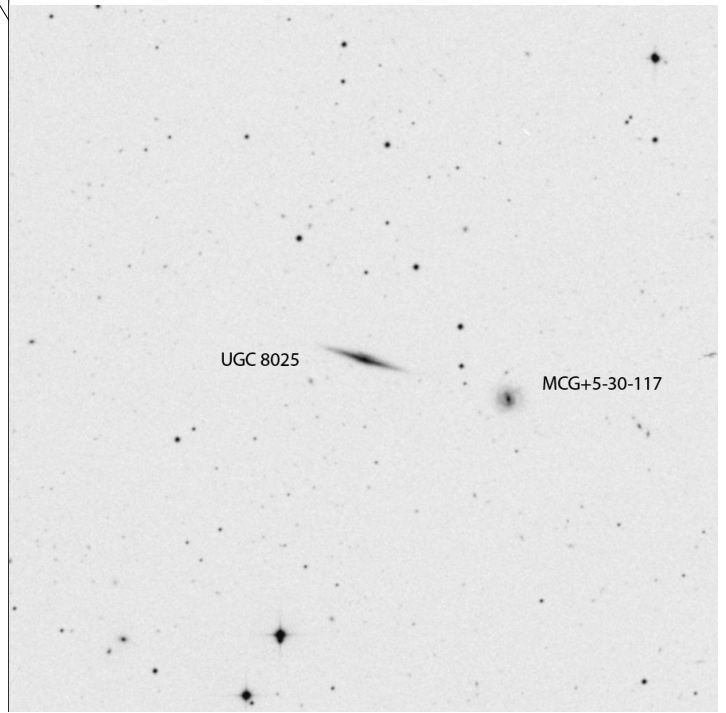
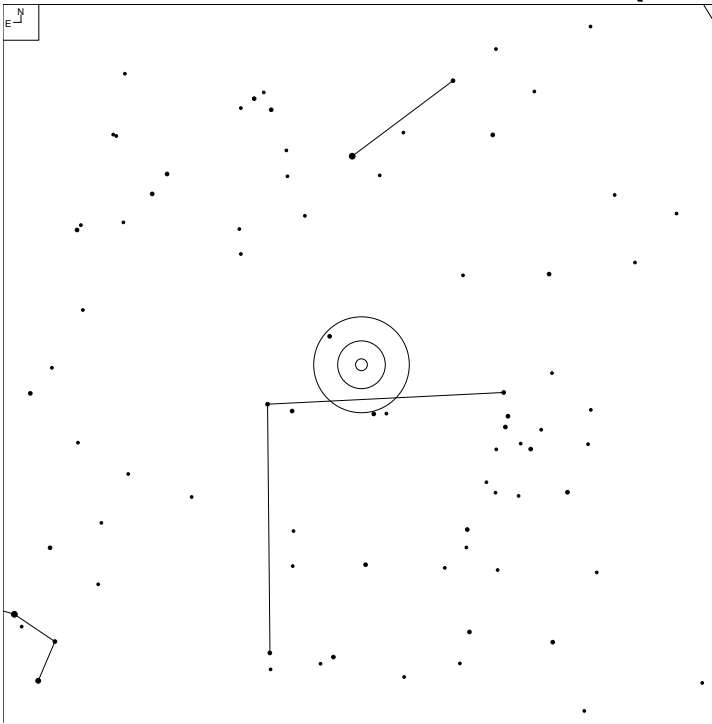
Name	RA	Dec	Mag	Size	Urano
NGC 4565	12h 36m 21.1s	+25°59'06"	10.4b	15.9 x 1.8'	72L

NGC 4738 (Coma Berenices)



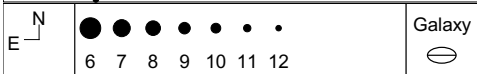
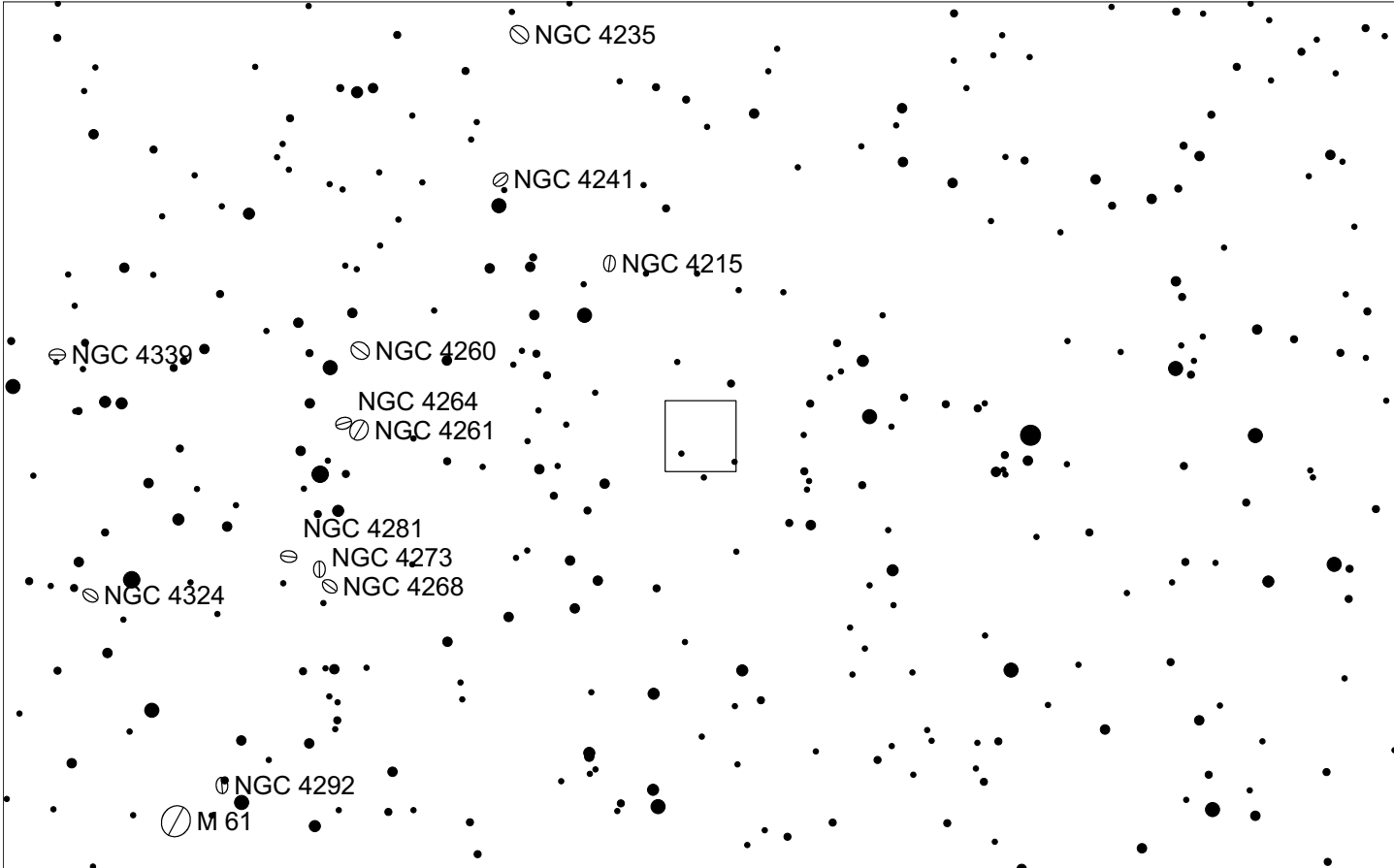
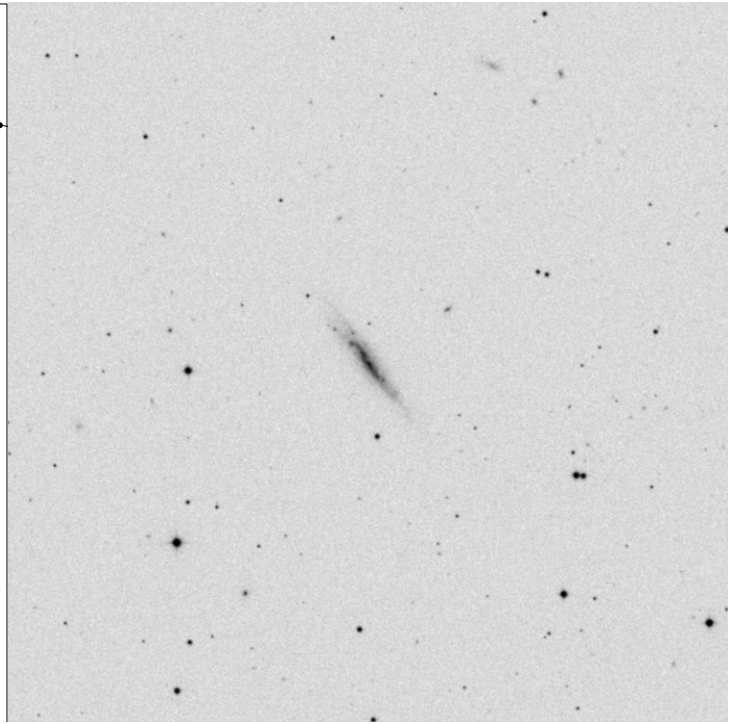
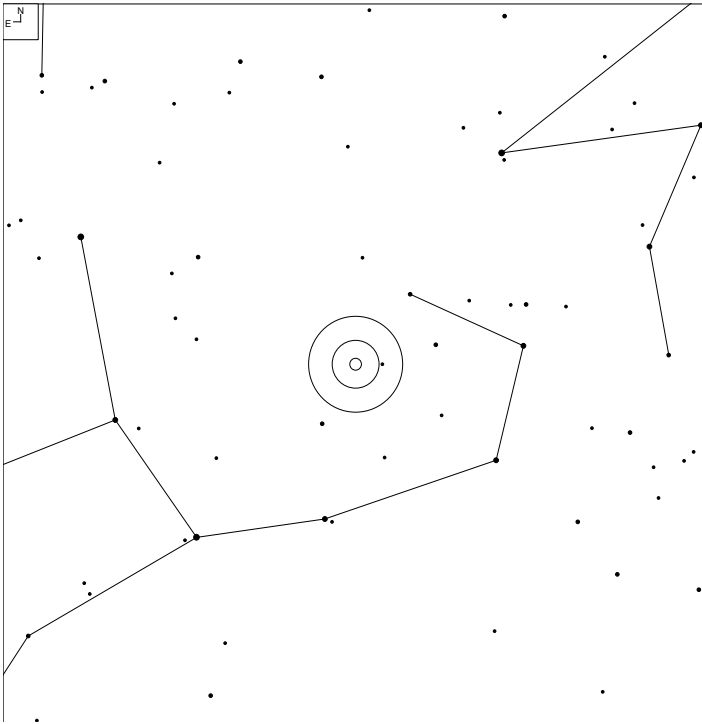
Name	RA	Dec	Mag	Size	Urano
NGC 4738	12h 51m 09.6s	+28°47'17"	14.2b	2.3 x 0.4'	71R

UGC 8025 (Coma Berenices)



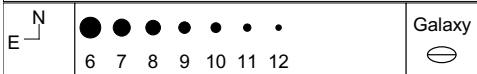
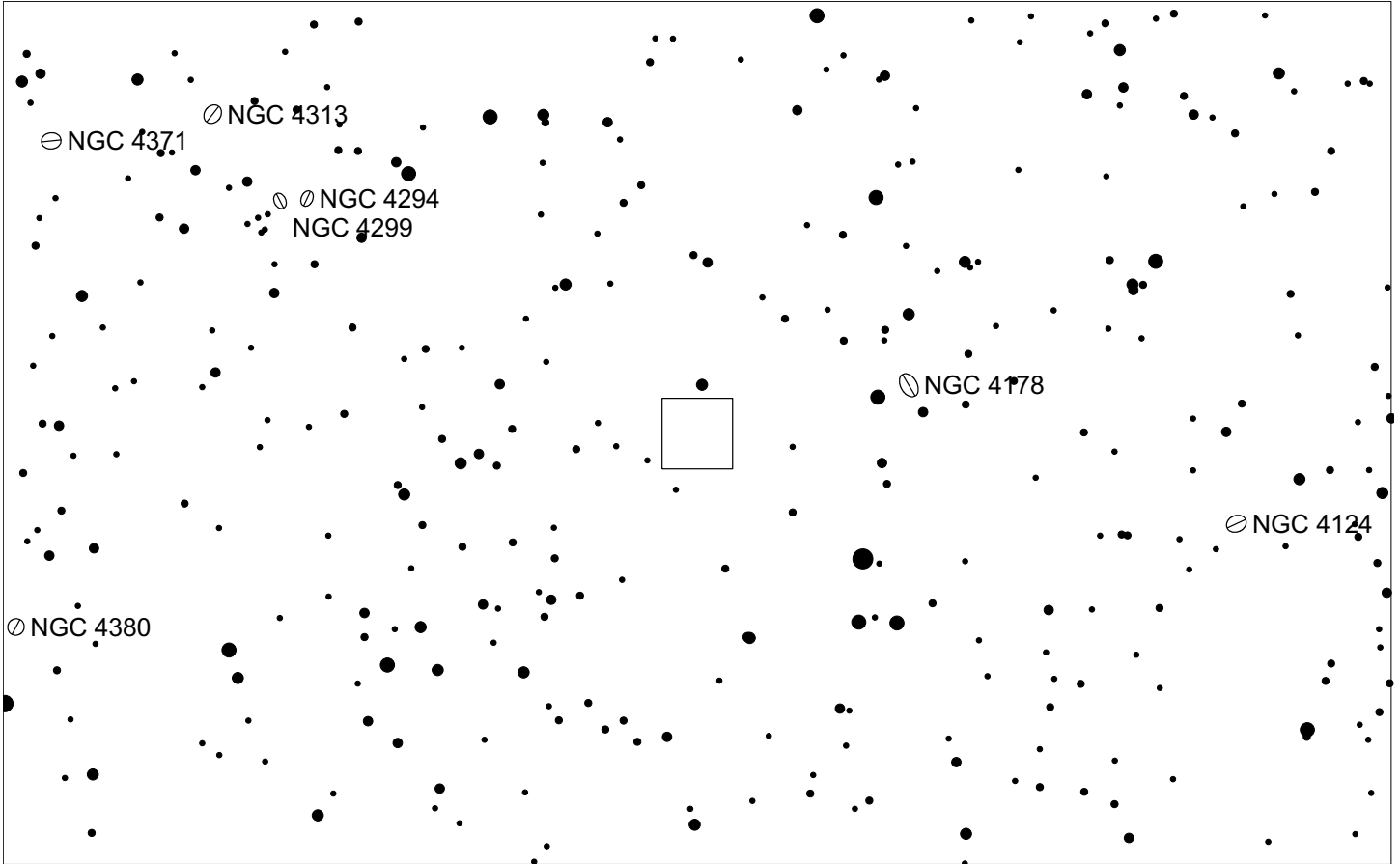
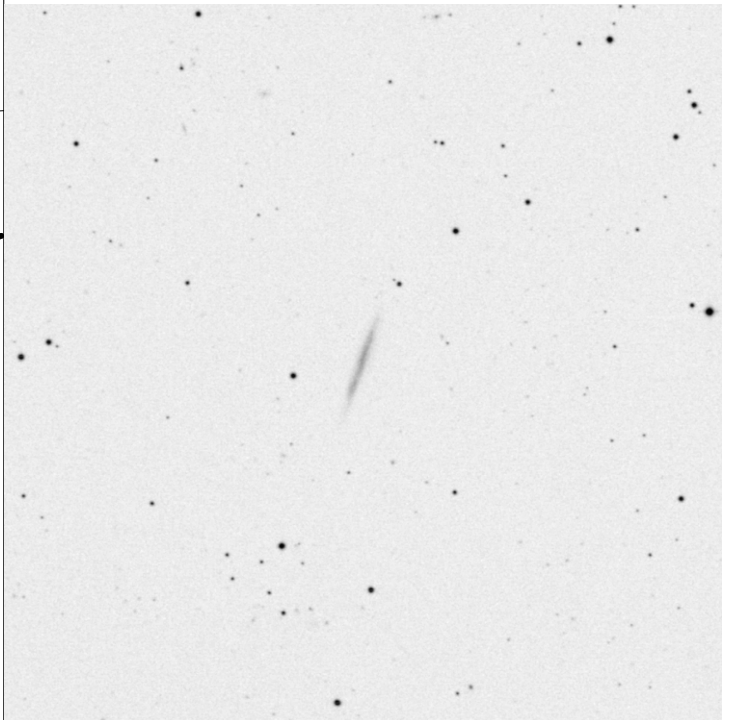
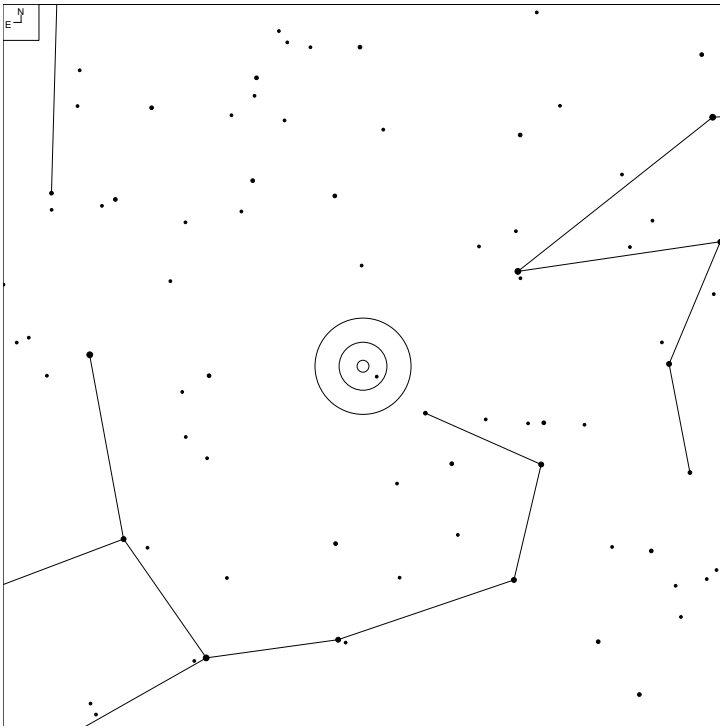
Name	RA	Dec	Mag	Size	Urano
UGC 8025	12h 54m 02.4s	+29°36'14"	14.8p	2.1 x 0.4'	53R

NGC 4197 (Virgo)



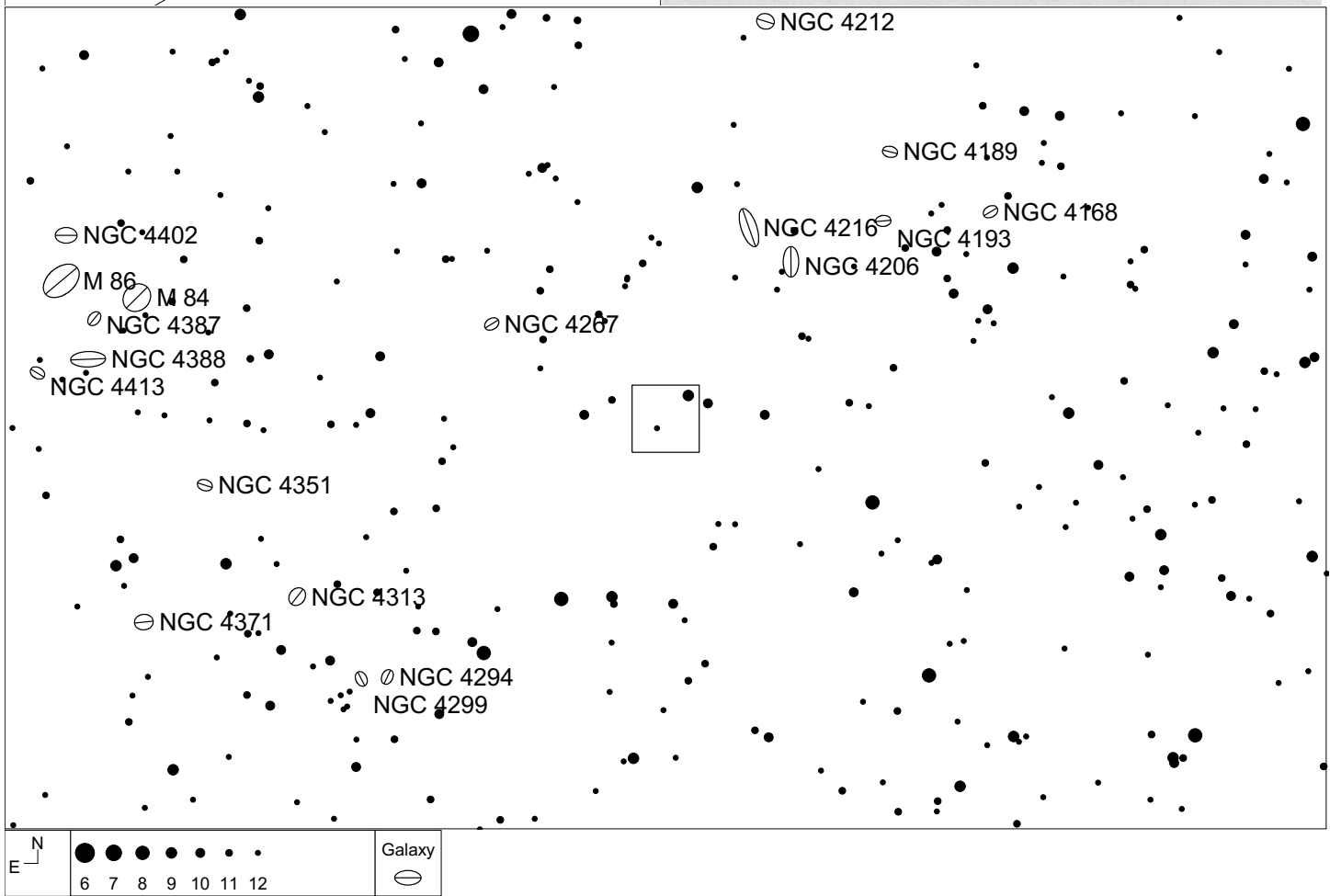
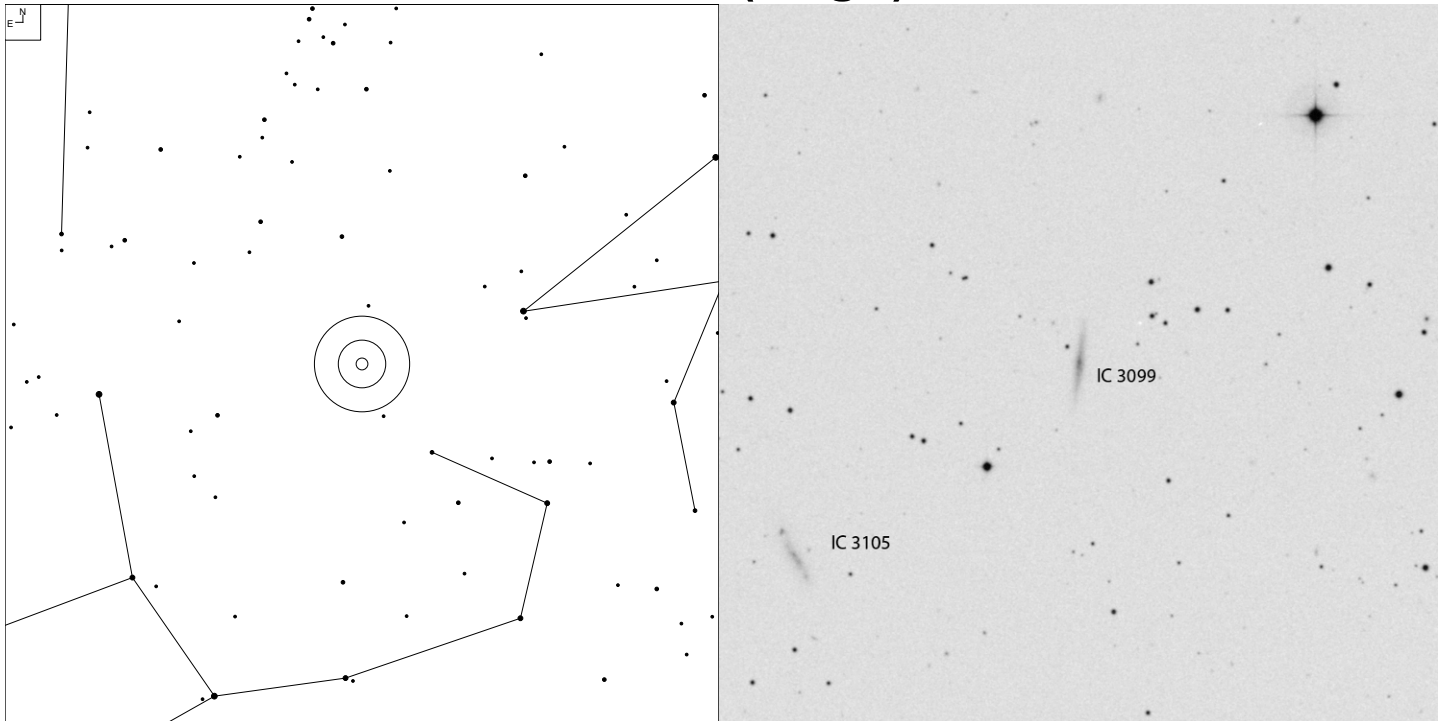
Name	RA	Dec	Mag	Size	Urano
NGC 4197	12h 14m 38.4s	+05°48'24"	13.4b	3.4 x 0.5'	91L

IC 3074 (Virgo)



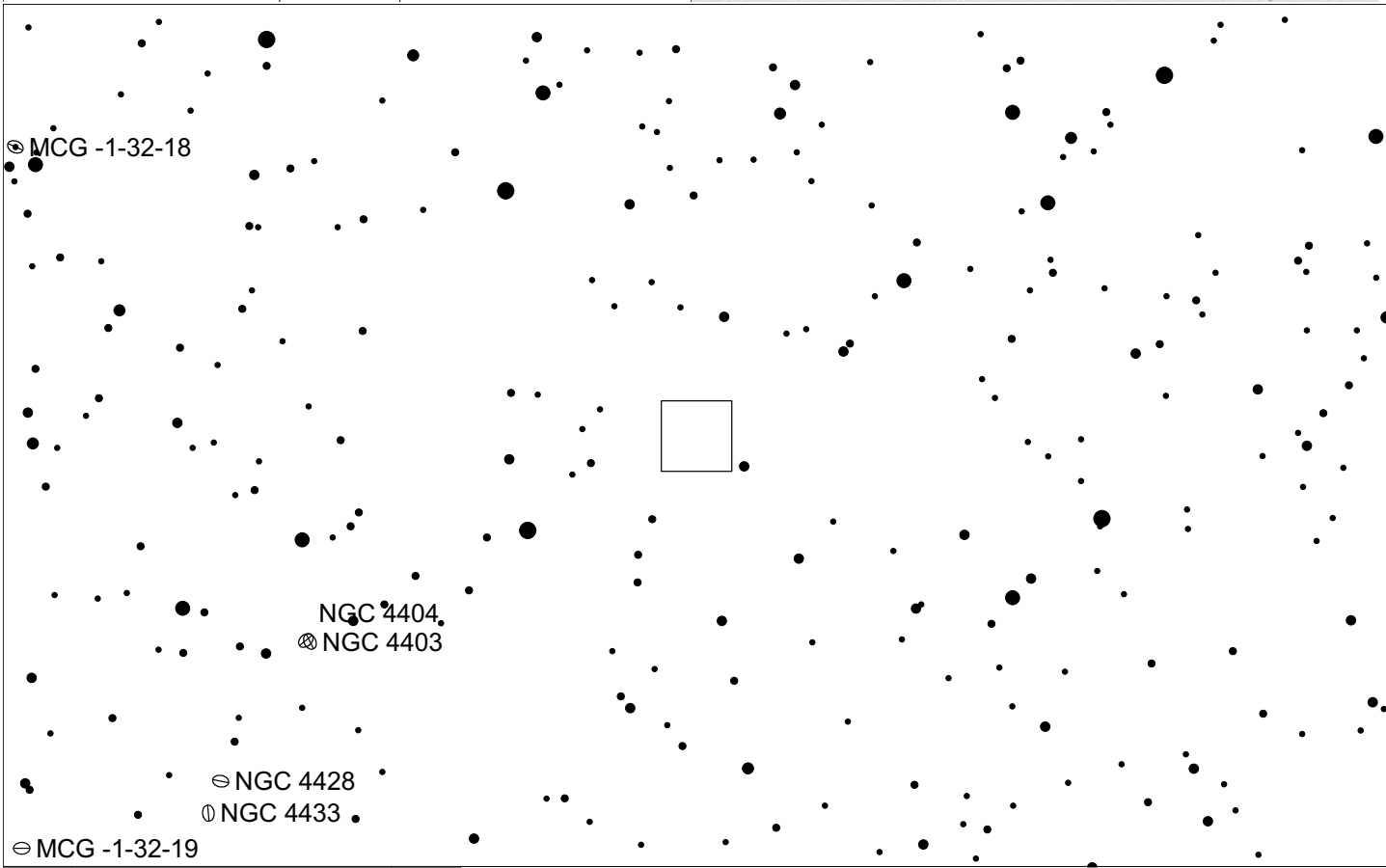
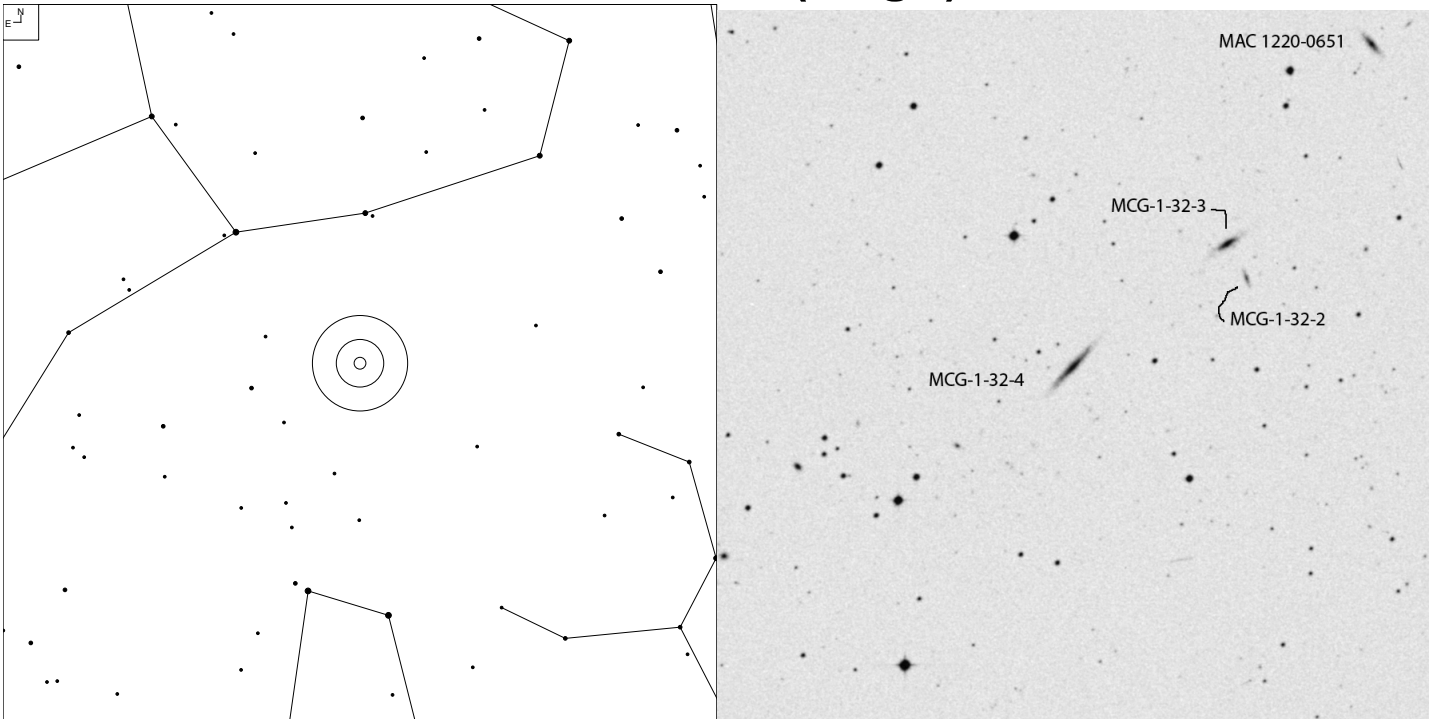
Name	RA	Dec	Mag	Size	Urano
IC 3074	12h 15m 45.6s	+10°42'00"	14.7b	2.3 x 0.3'	91L

IC 3099 (Virgo)



Name	RA	Dec	Mag	Size	Urano
IC 3099	12h 17m 09.4s	+12°27'13"	14.9p	1.9 x 0.2'	91L

MCG-1-32-4 (Virgo)

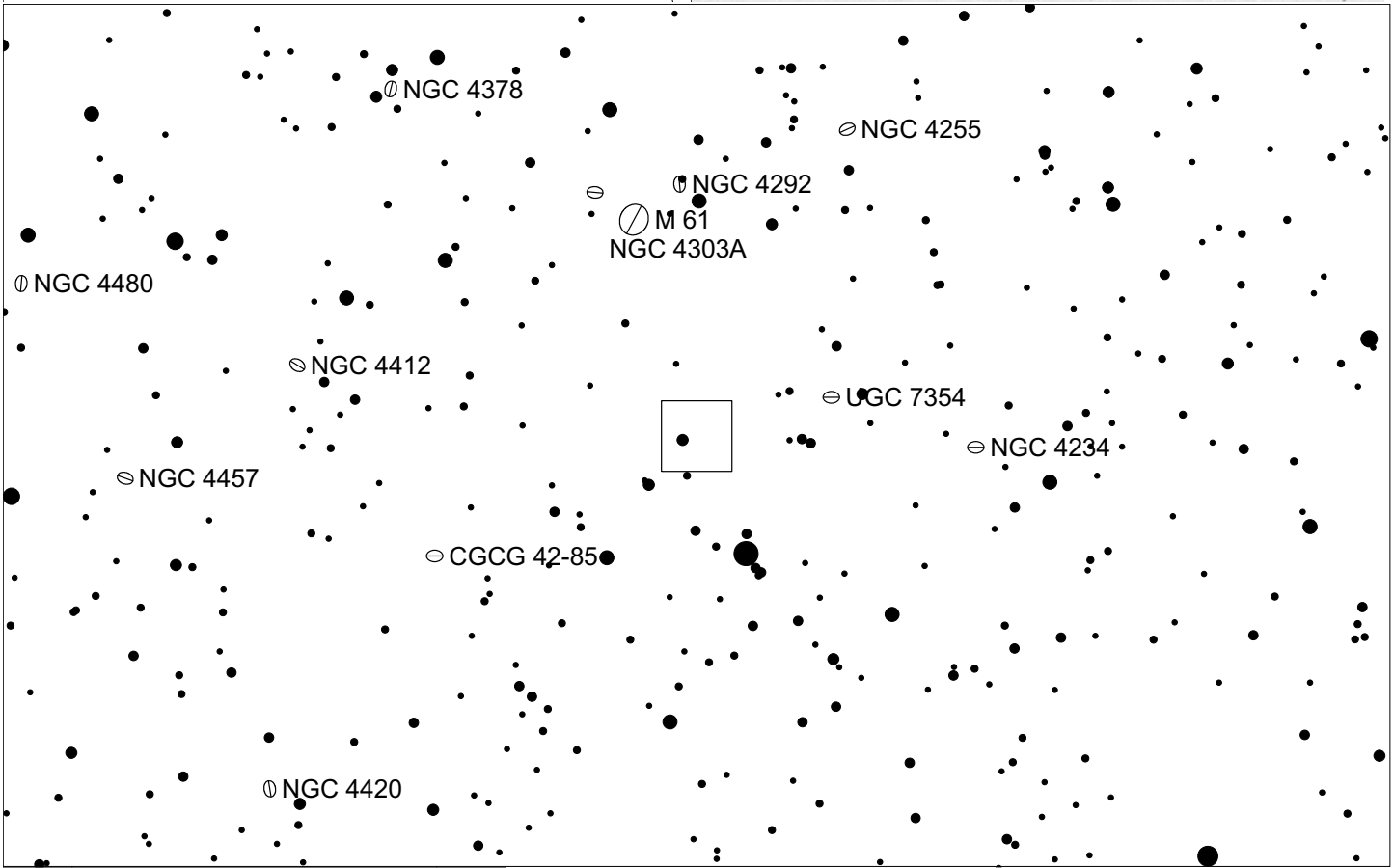
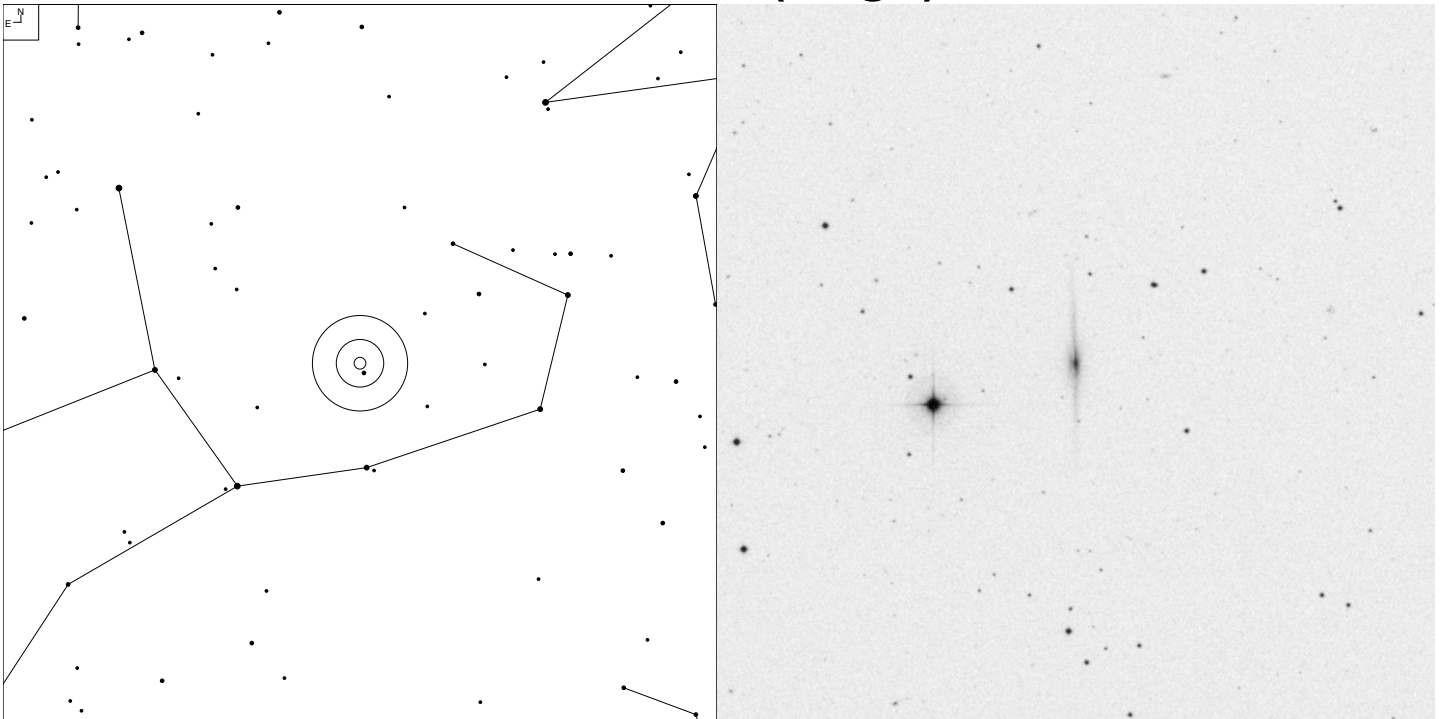


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Galaxy

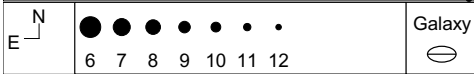
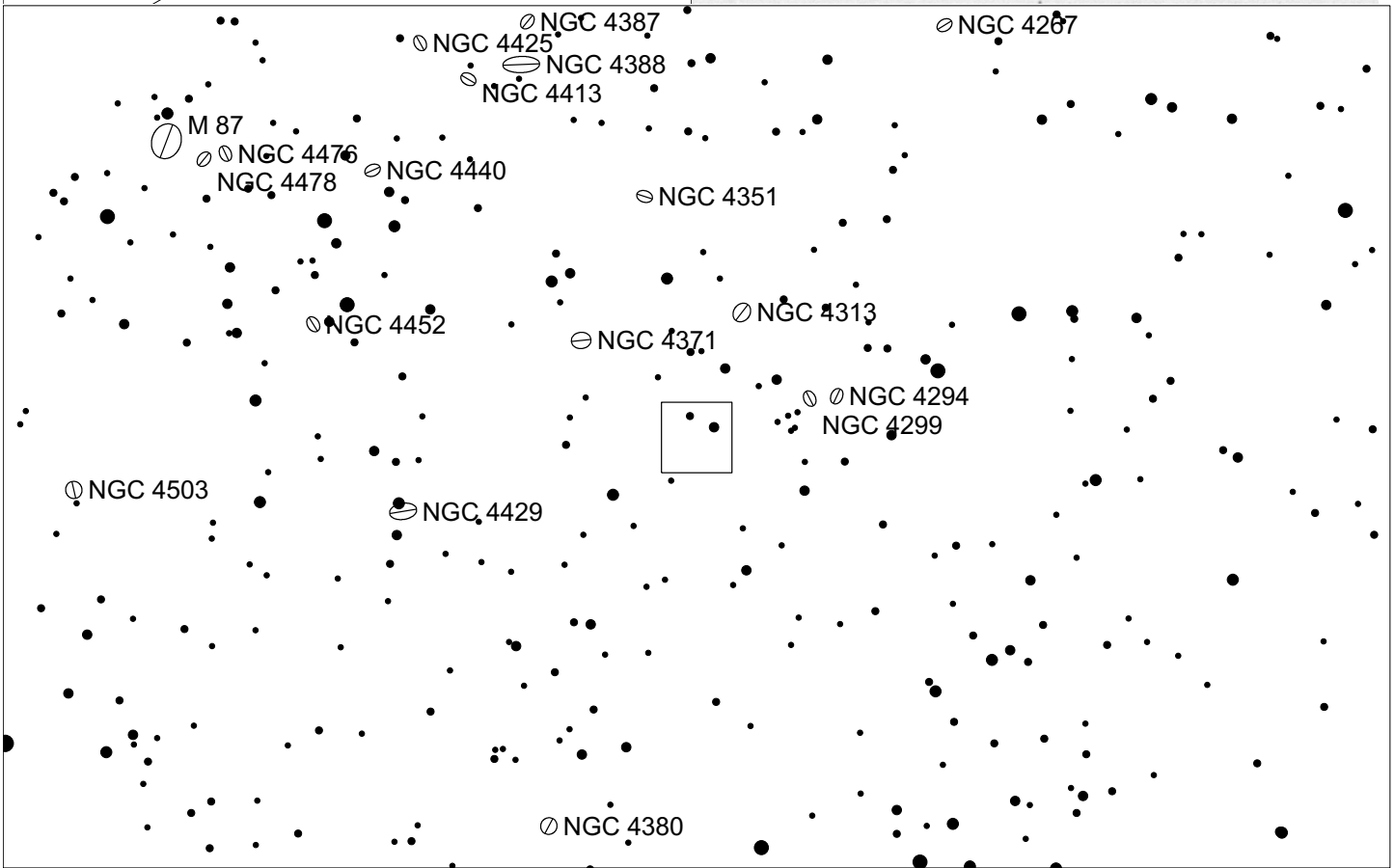
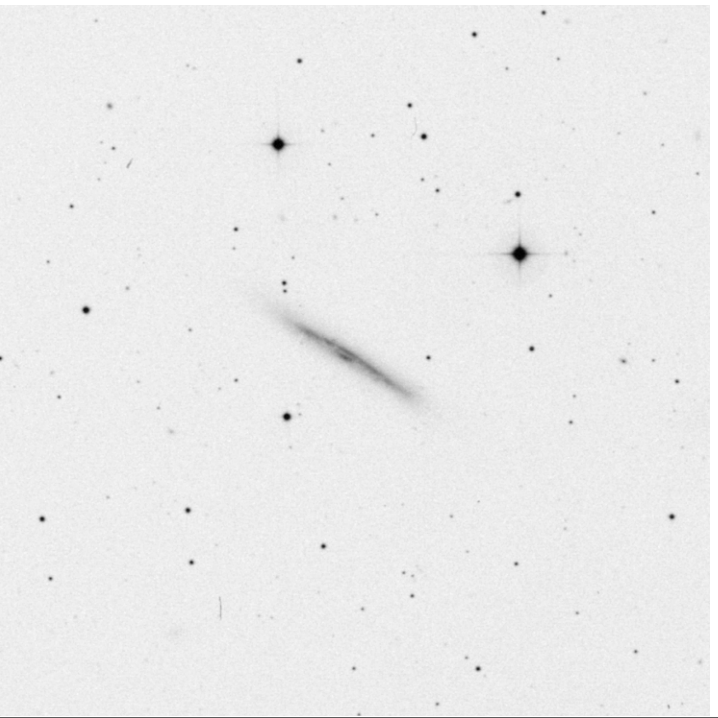
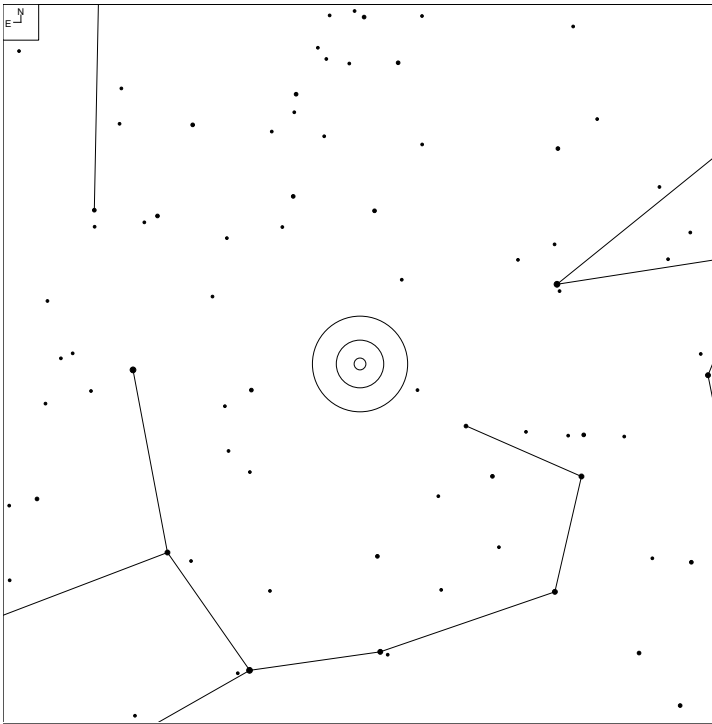
Name	RA	Dec	Mag	Size	Urano
MCG-1-32-4	12h 20m 48.0s	-06°58'19"	15.7	1.4 x 0.2'	132L

NGC 4289 (Virgo)



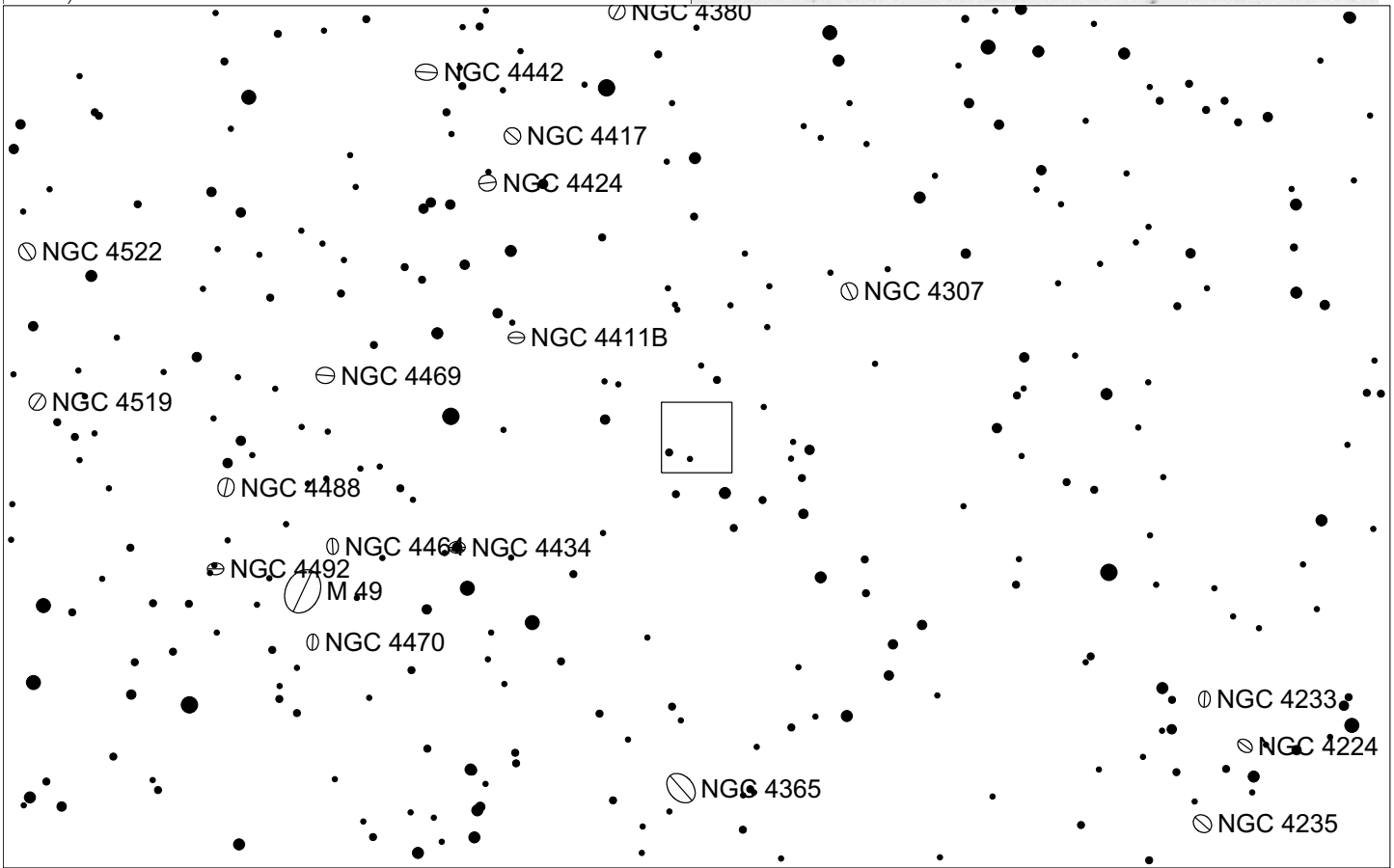
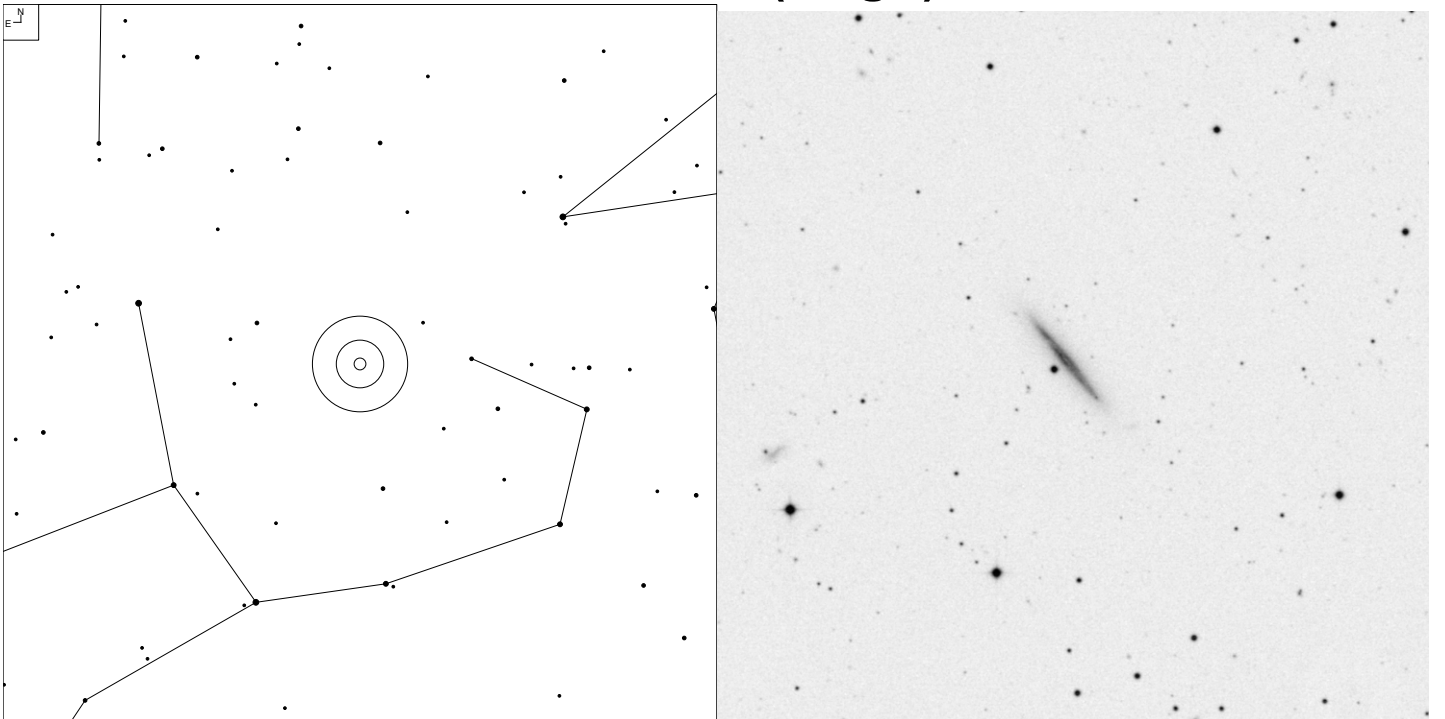
Name	RA	Dec	Mag	Size	Urano
NGC 4289	12h 21m 02.2s	+03°43'16"	14.6b	3.8 x 0.3'	111L

NGC 4330 (Virgo)



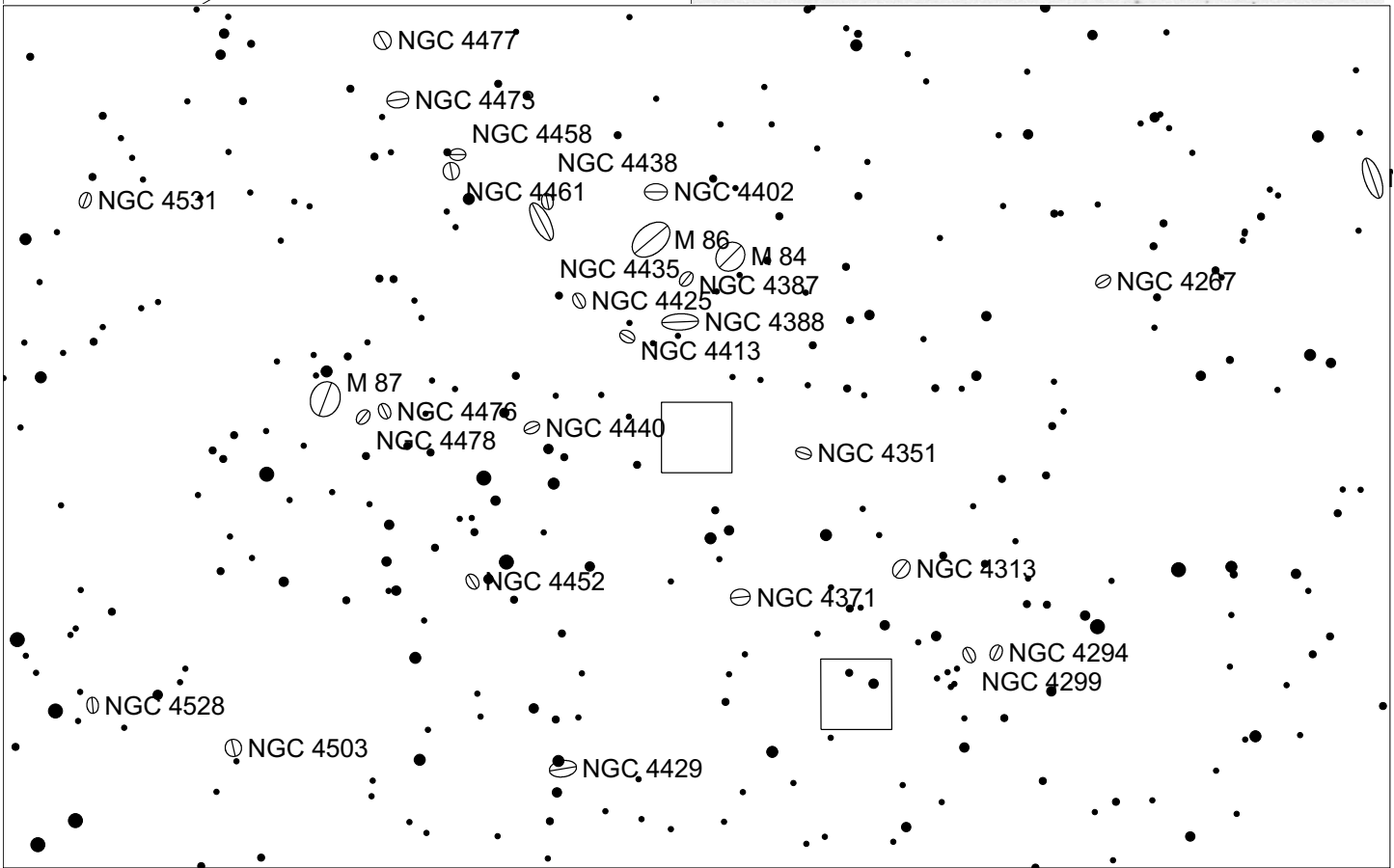
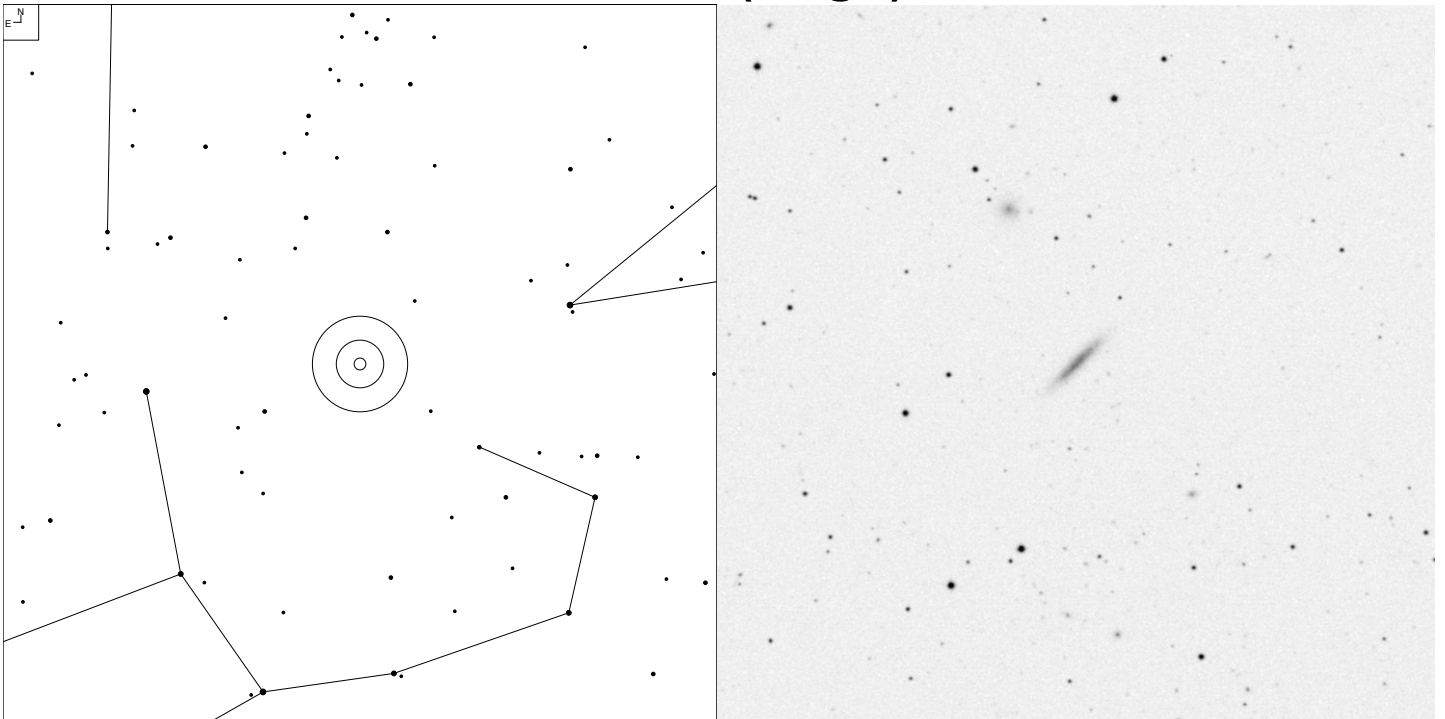
Name	RA	Dec	Mag	Size	Urano
NGC 4330	12h 23m 16.8s	+11°22'05"	13.1b	4.4 x 0.8'	91L

NGC 4356 (Virgo)



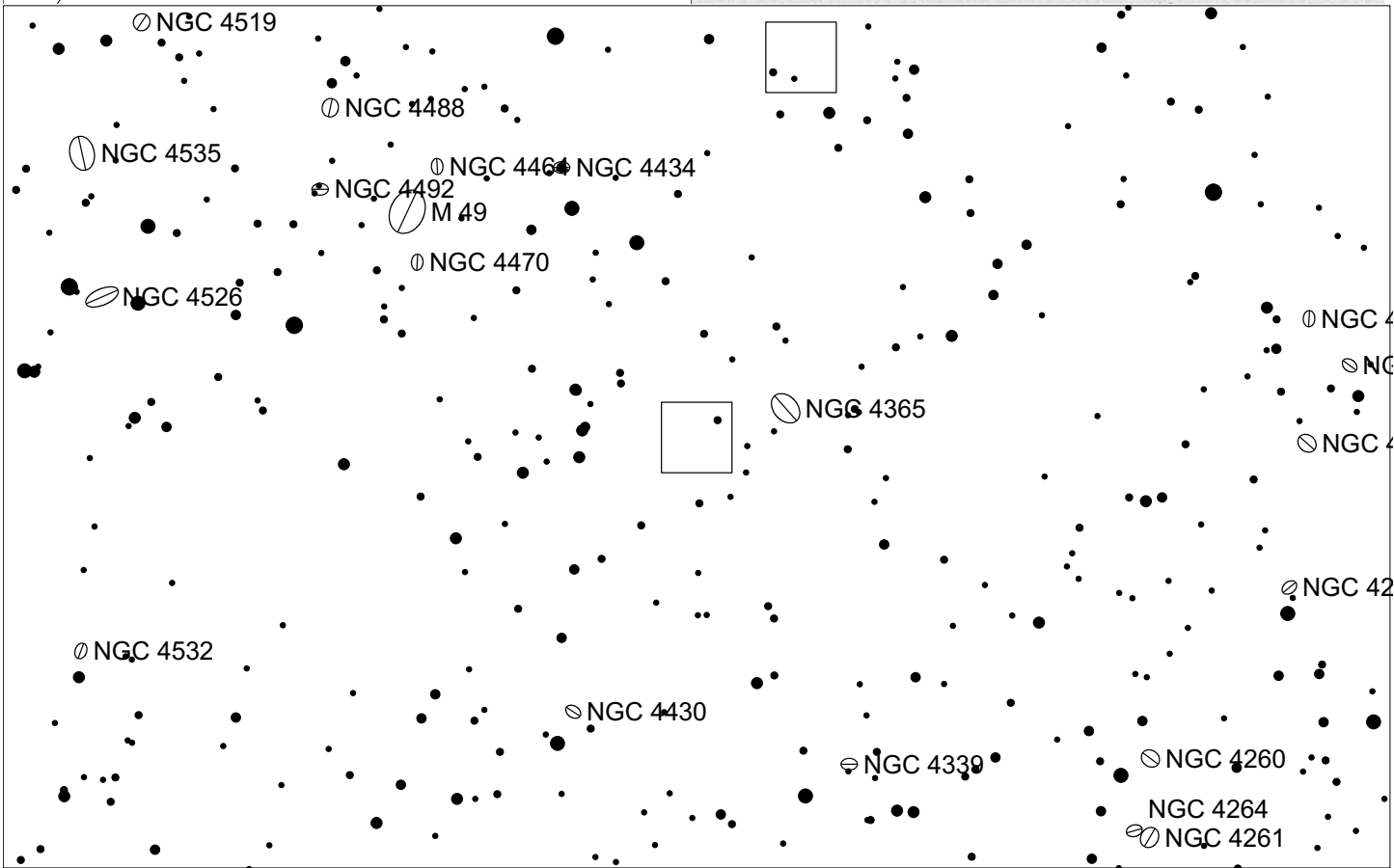
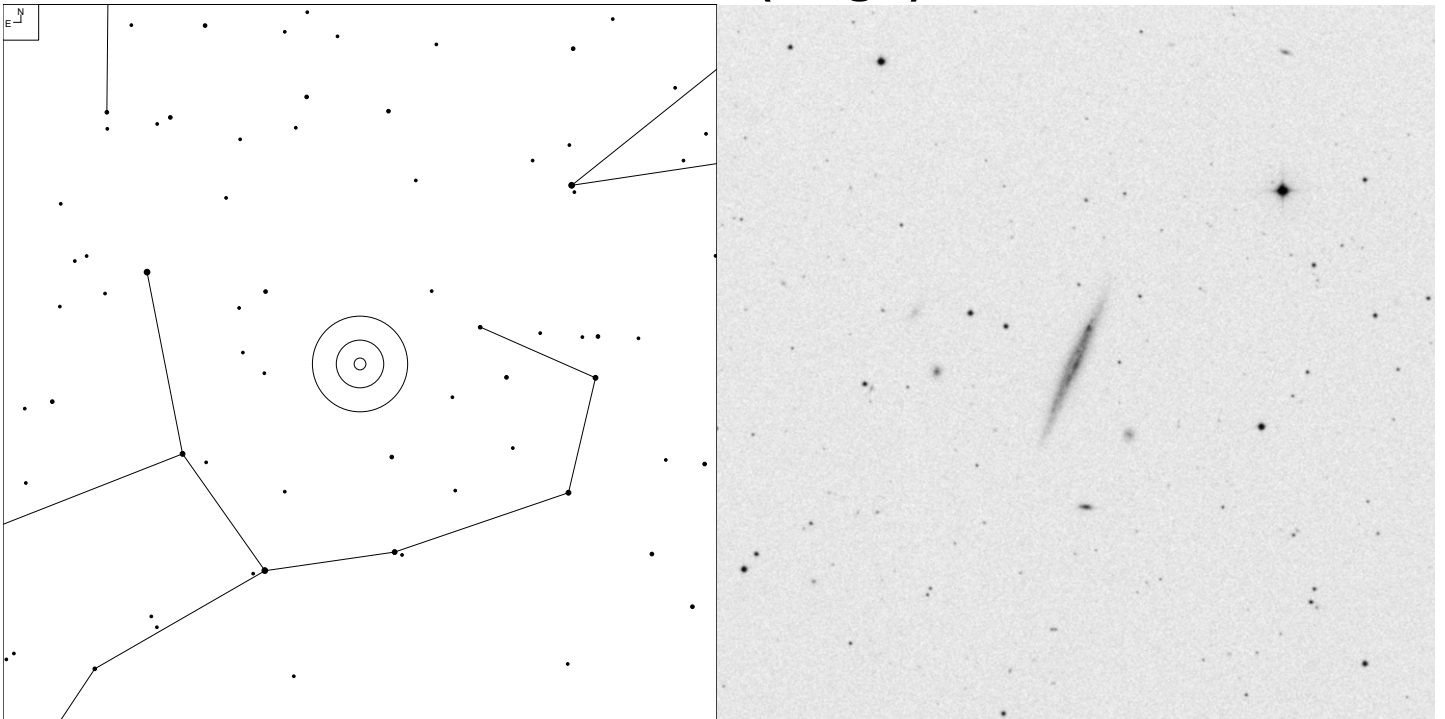
Name	RA	Dec	Mag	Size	Urano
NGC 4356	12h 24m 14.9s	+08°32'15"	14.0p	2.8 x 0.5'	91L

IC 3311 (Virgo)



Name	RA	Dec	Mag	Size	Urano
IC 3311	12h 25m 33.1s	+12°15'38"	14.9p	2.9 x 0.3'	91L

IC 3322A (Virgo)

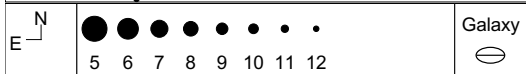
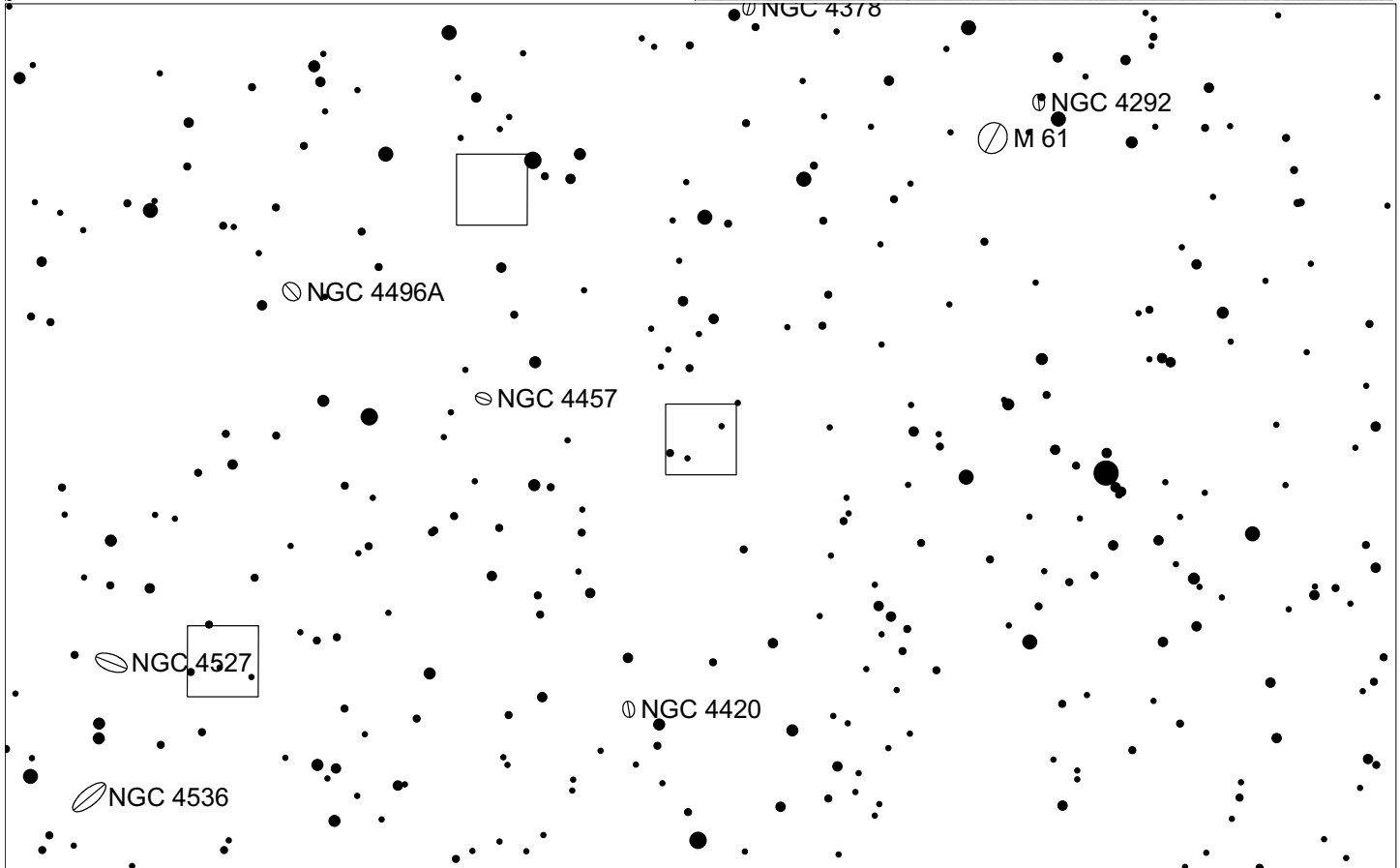
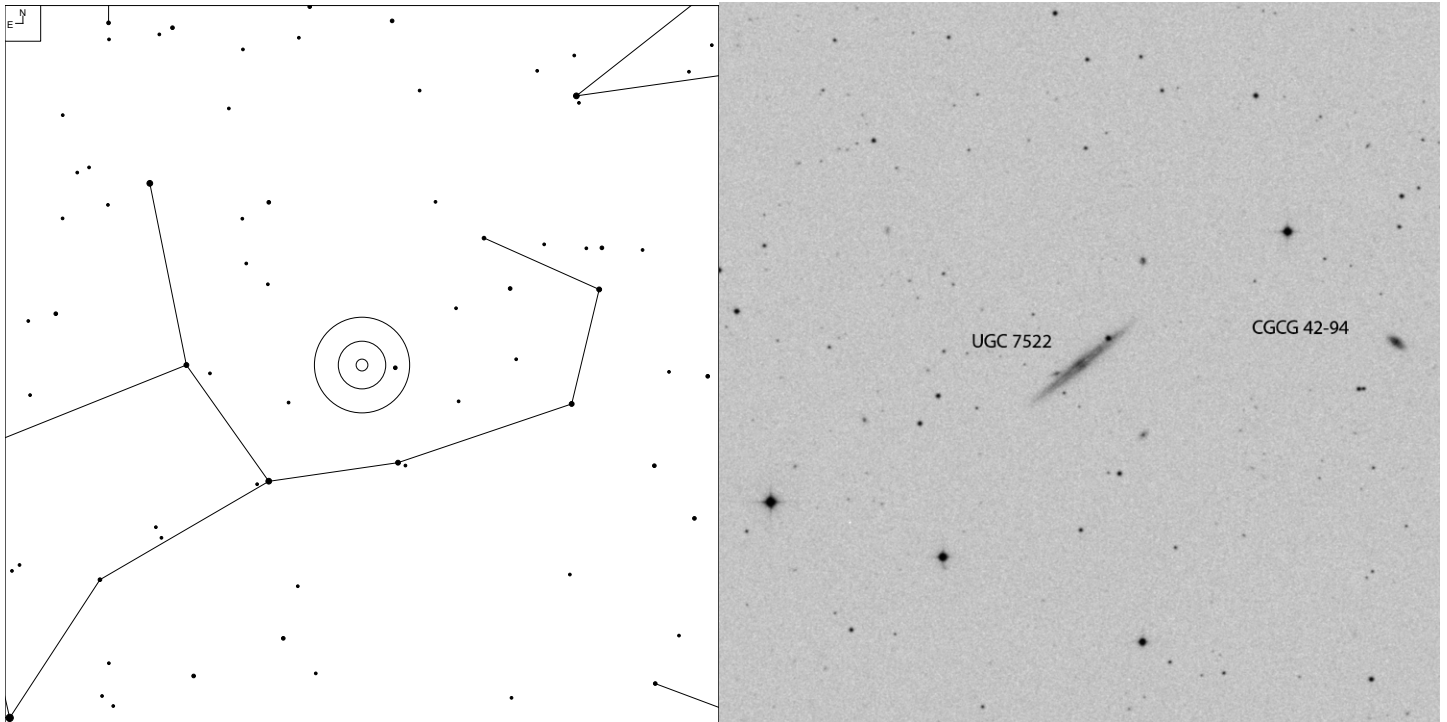


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Galaxy

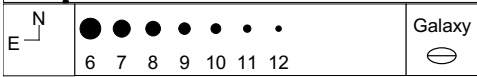
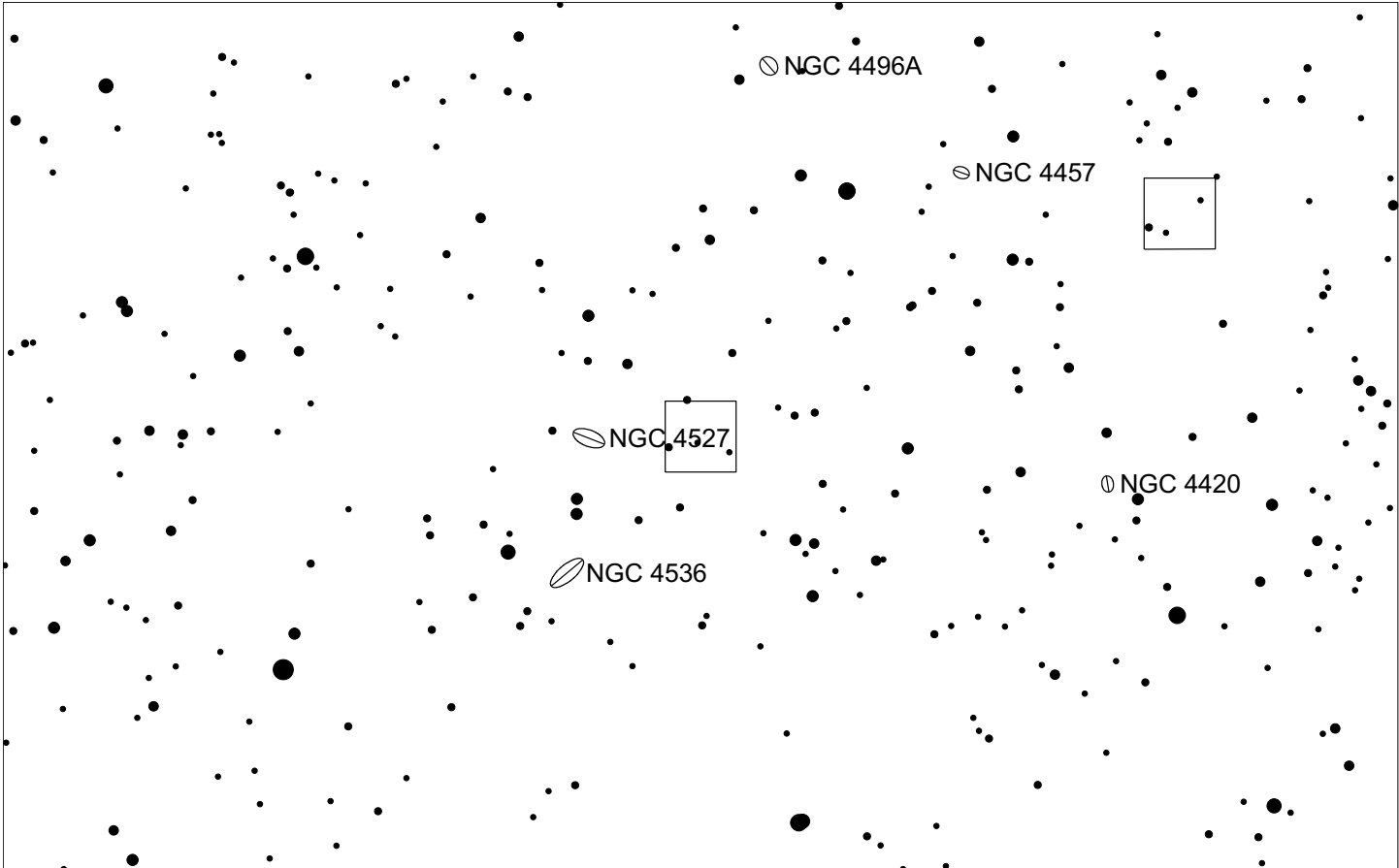
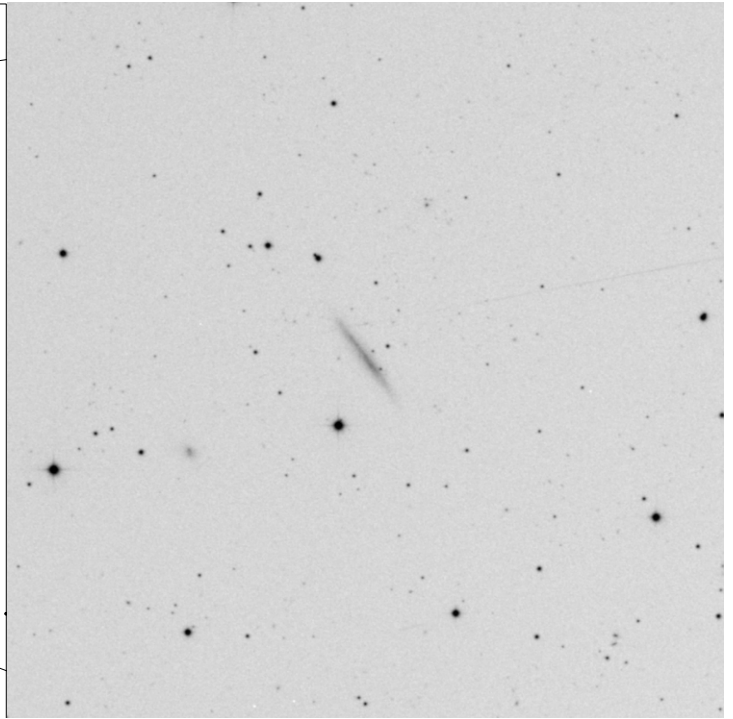
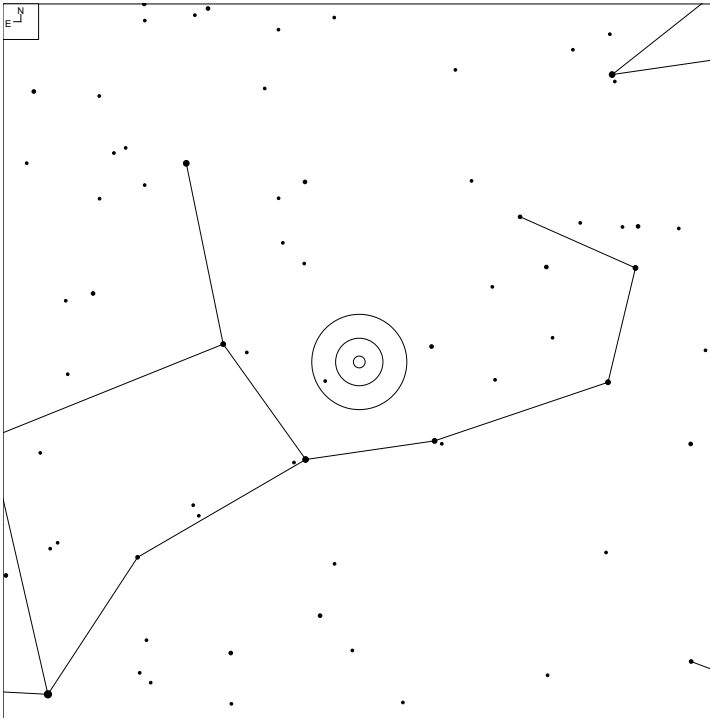
Name	RA	Dec	Mag	Size	Urano
IC 3322A	12h 25m 43.2s	+07°13'04"	13.6b	3.8 x 0.5'	91L

UGC 7522 (Virgo)



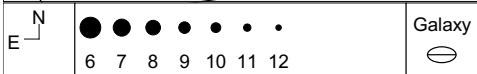
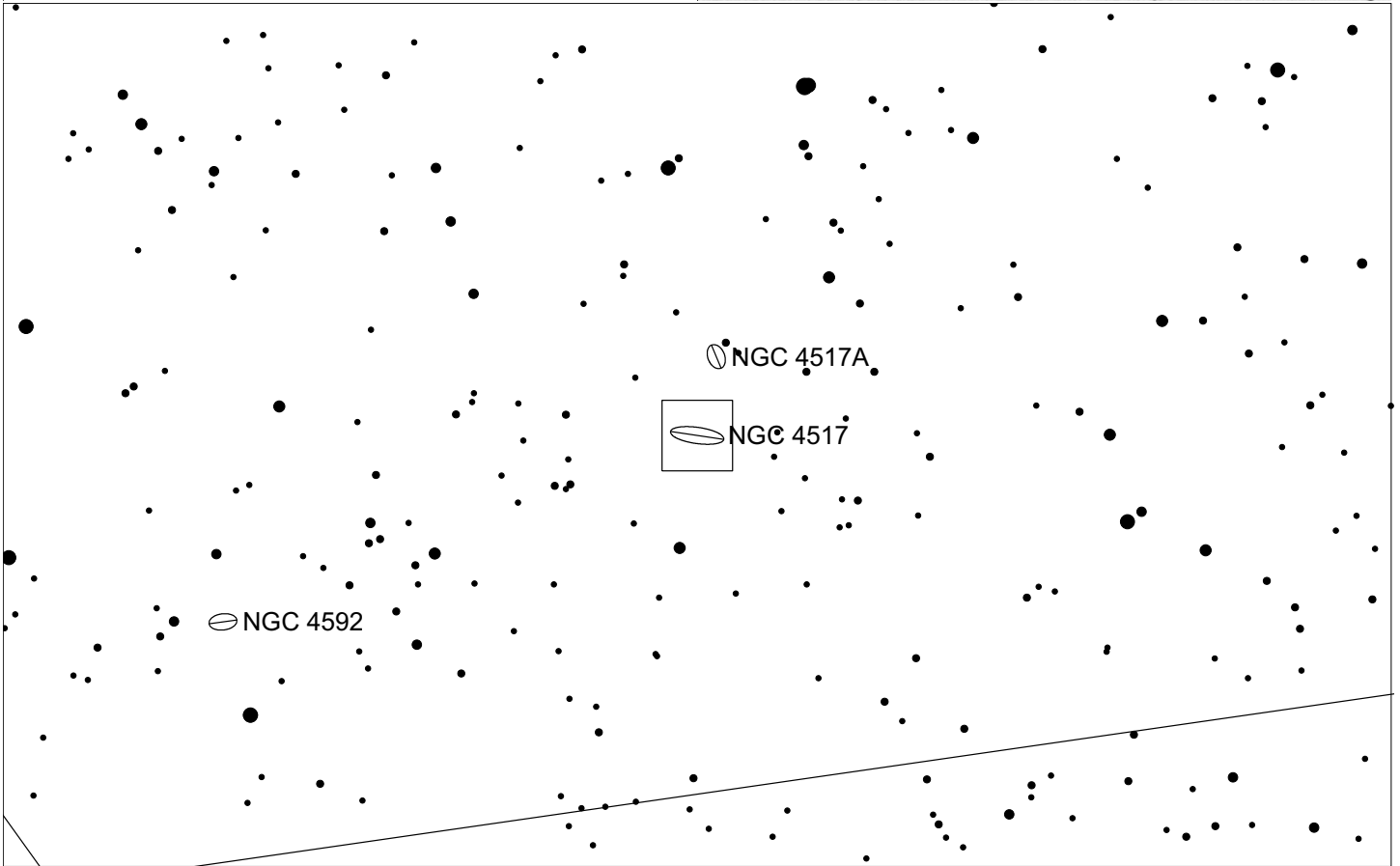
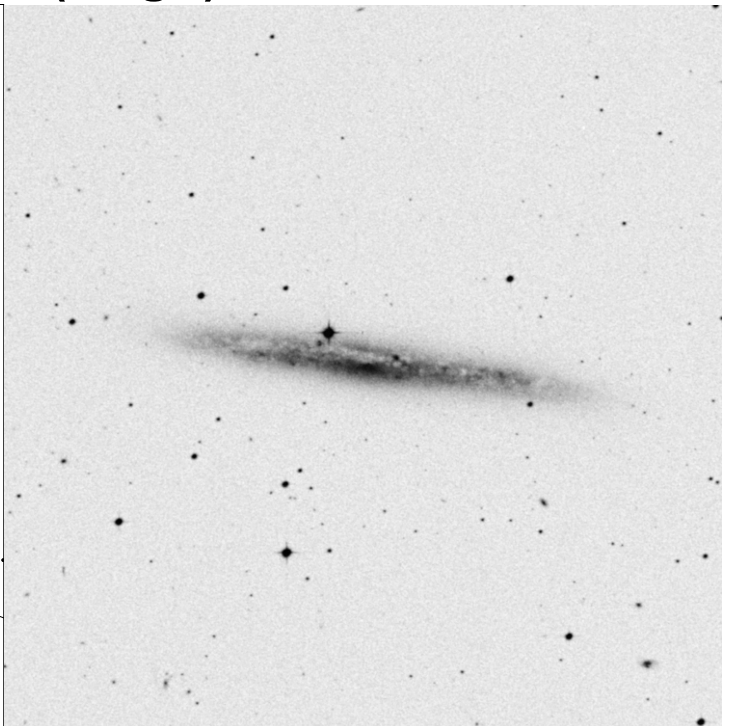
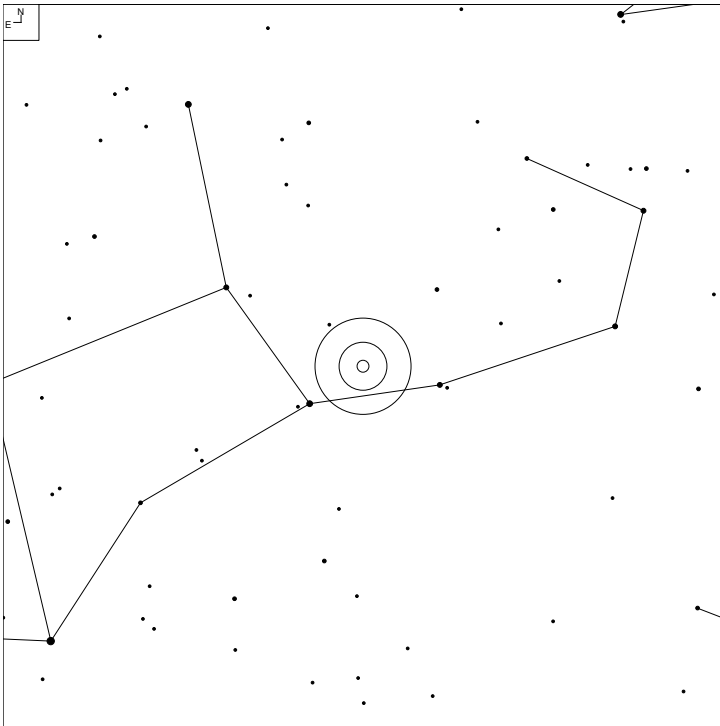
Name	RA	Dec	Mag	Size	Urano
UGC 7522	12h 25m 57.6s	+03°25'47"	14.5b	2.8 x 0.3'	111L

IC 3474 (Virgo)



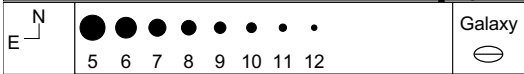
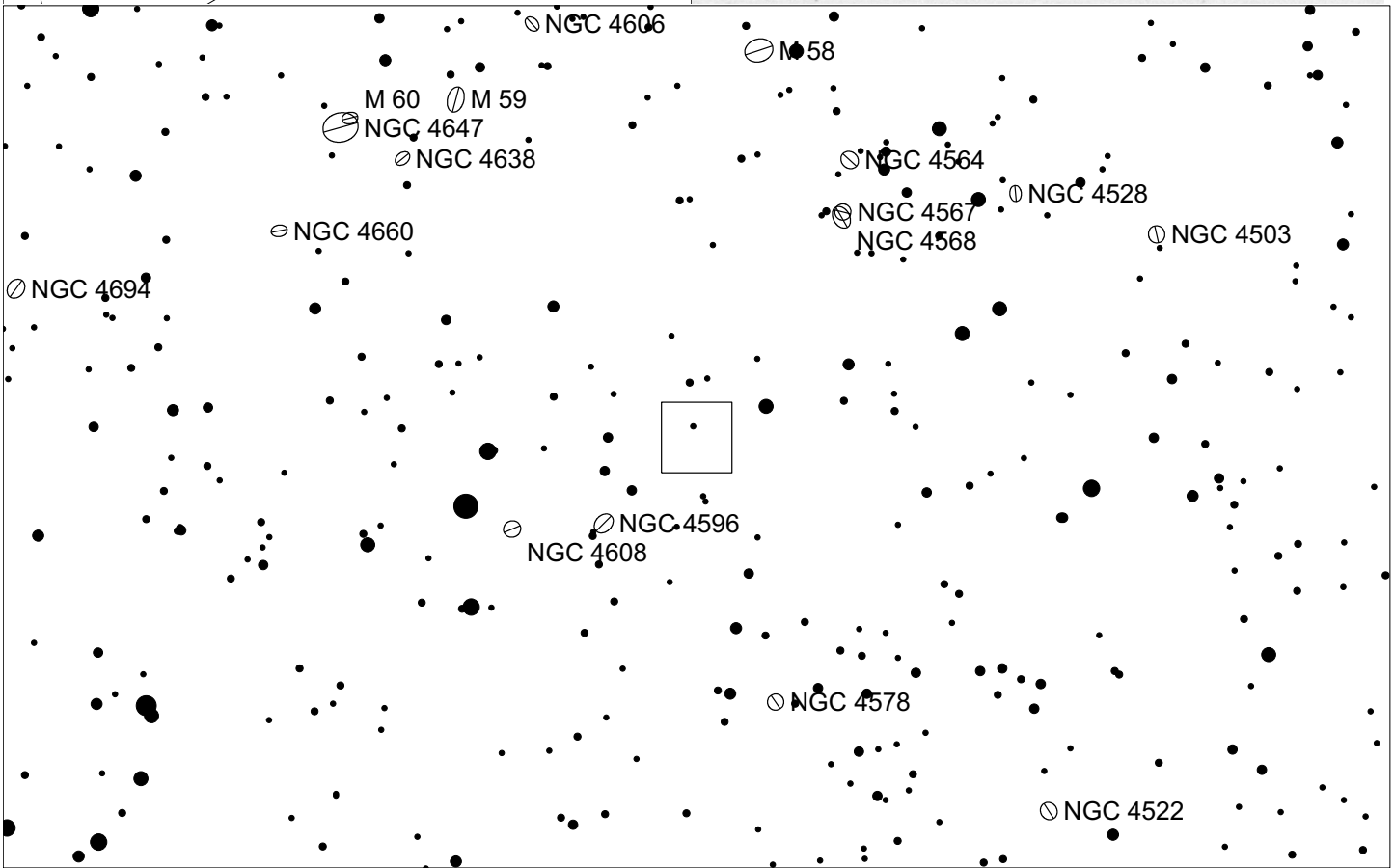
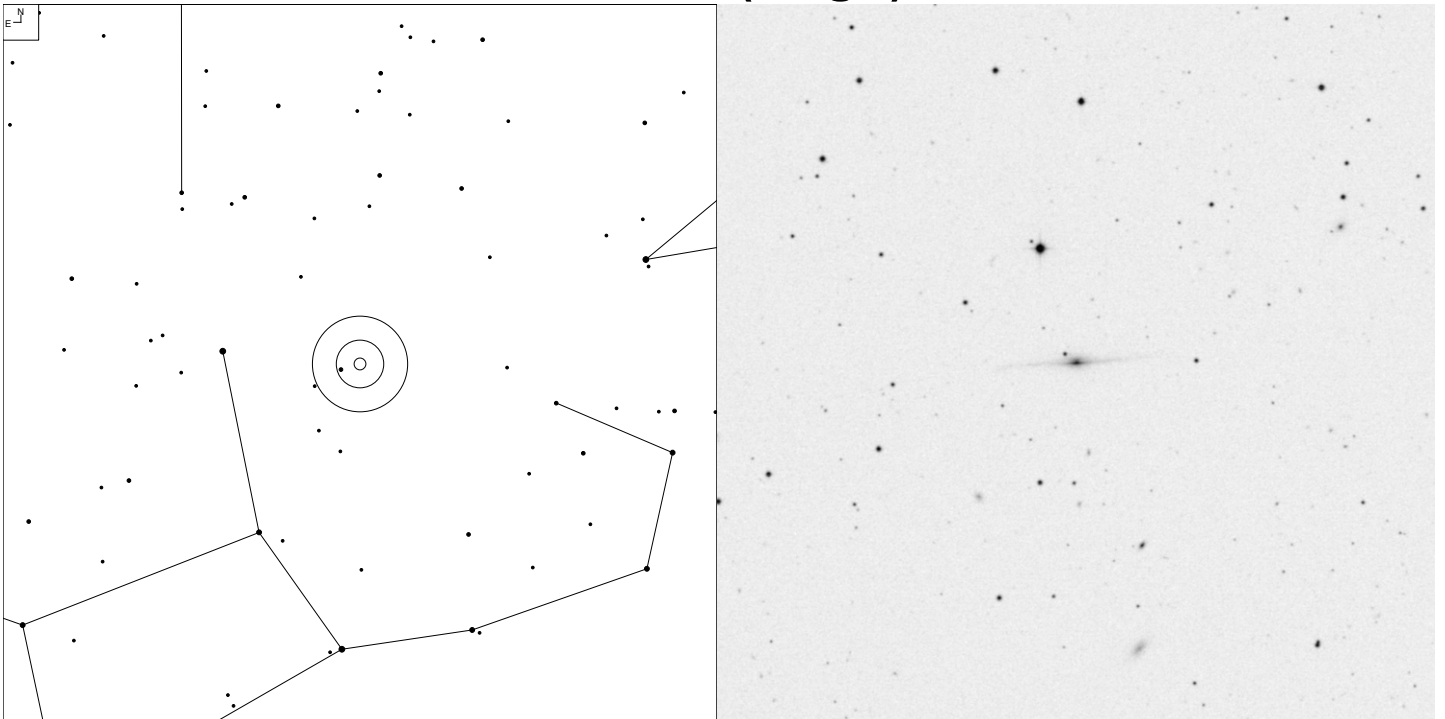
Name	RA	Dec	Mag	Size	Urano
IC 3474	12h 32m 36.5s	+02°39'41"	14.8p	3.1 x 0.4'	111L

NGC 4517 (Virgo)



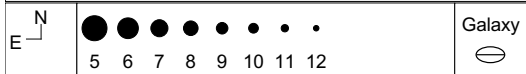
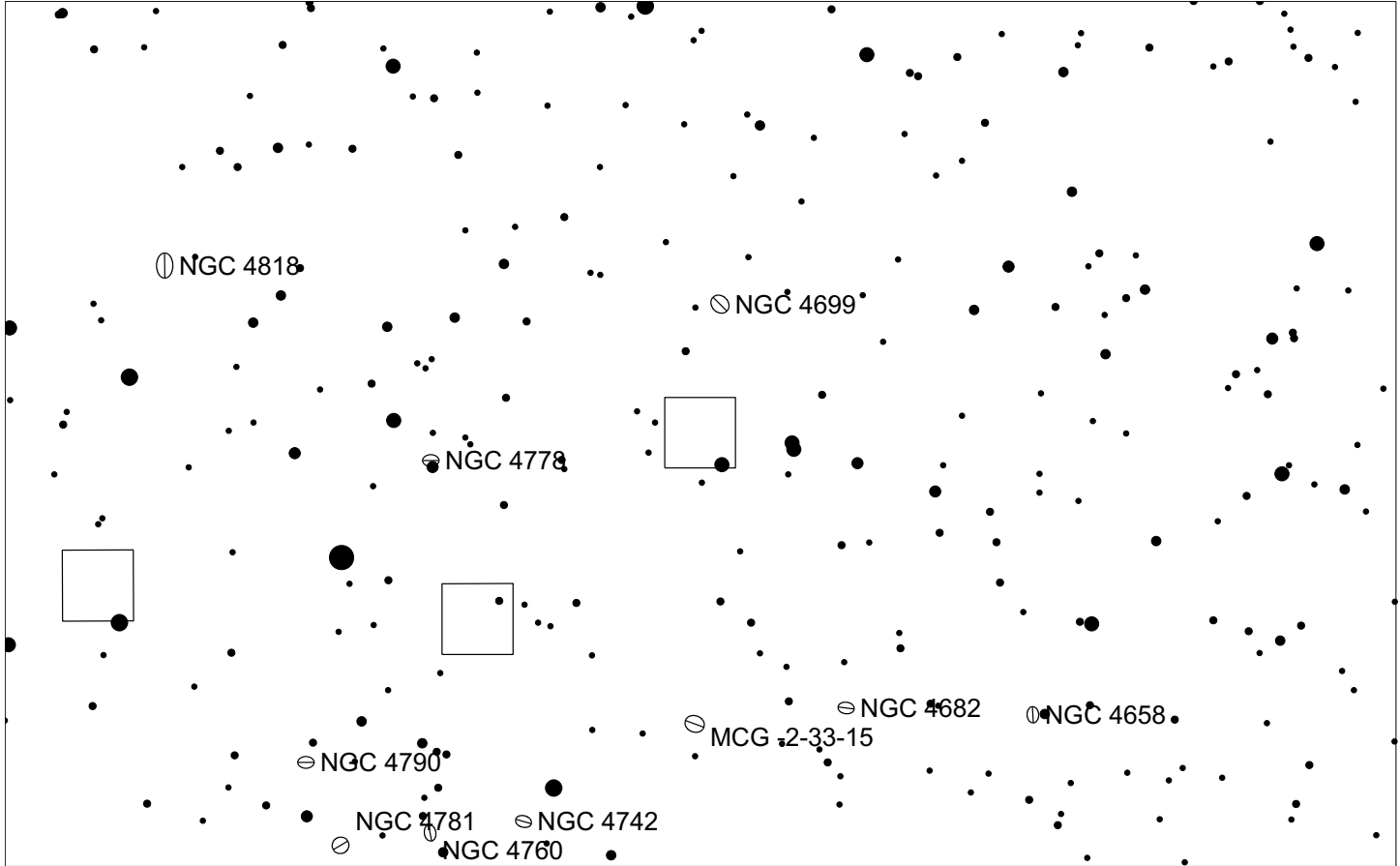
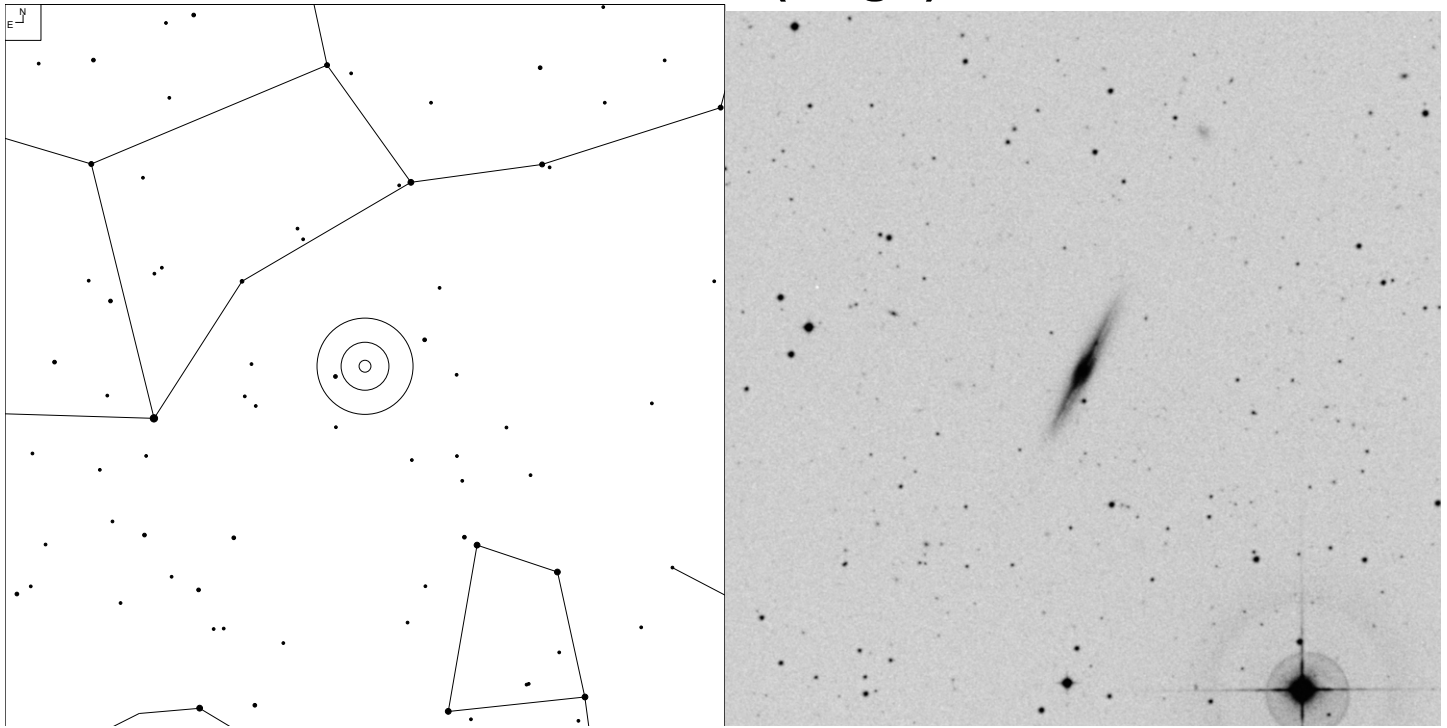
Name	RA	Dec	Mag	Size	Urano
NGC 4517	12h 32m 45.6s	+00°06'53"	11.1b	11.2 x 1.5'	111L

IC 3608 (Virgo)



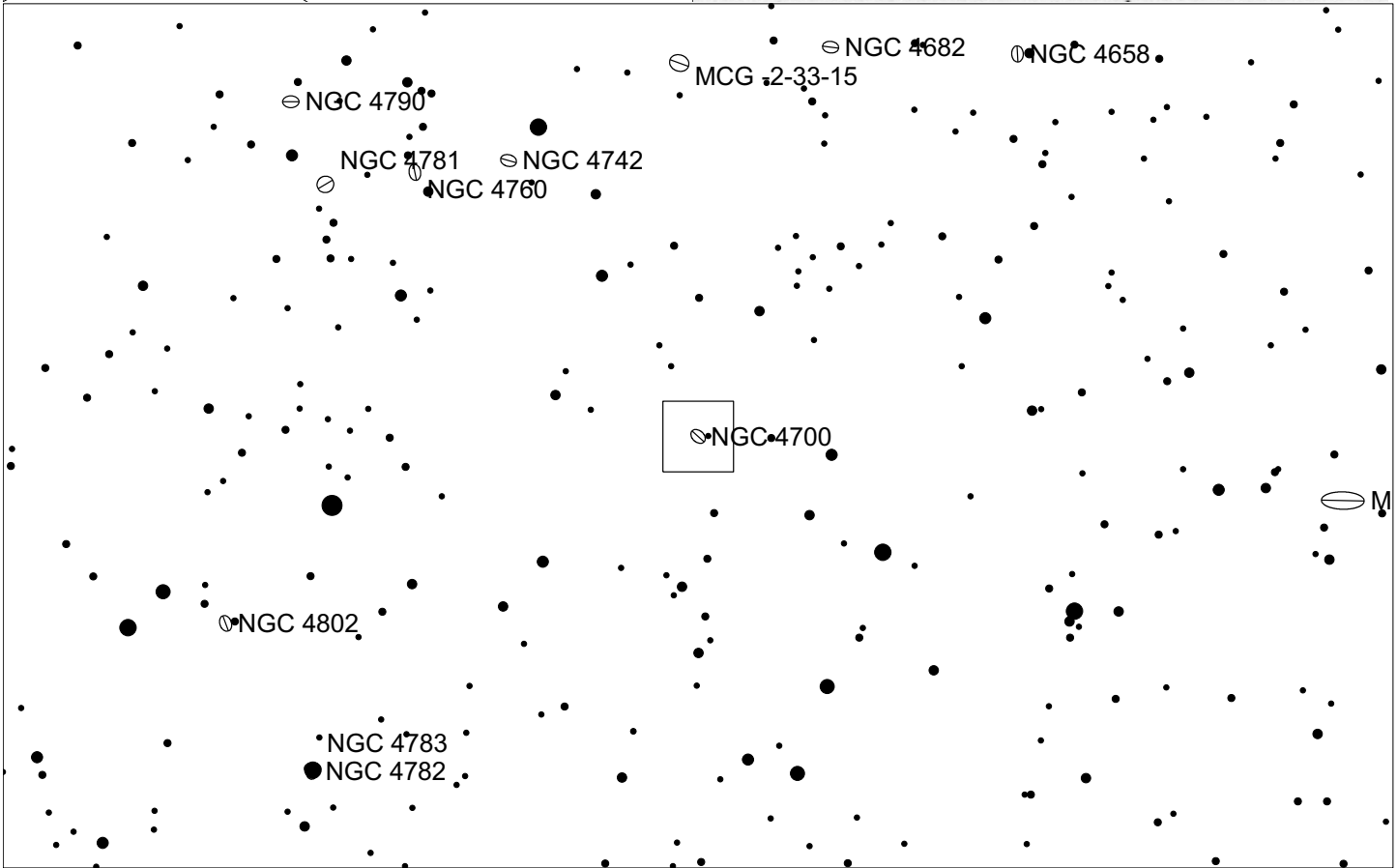
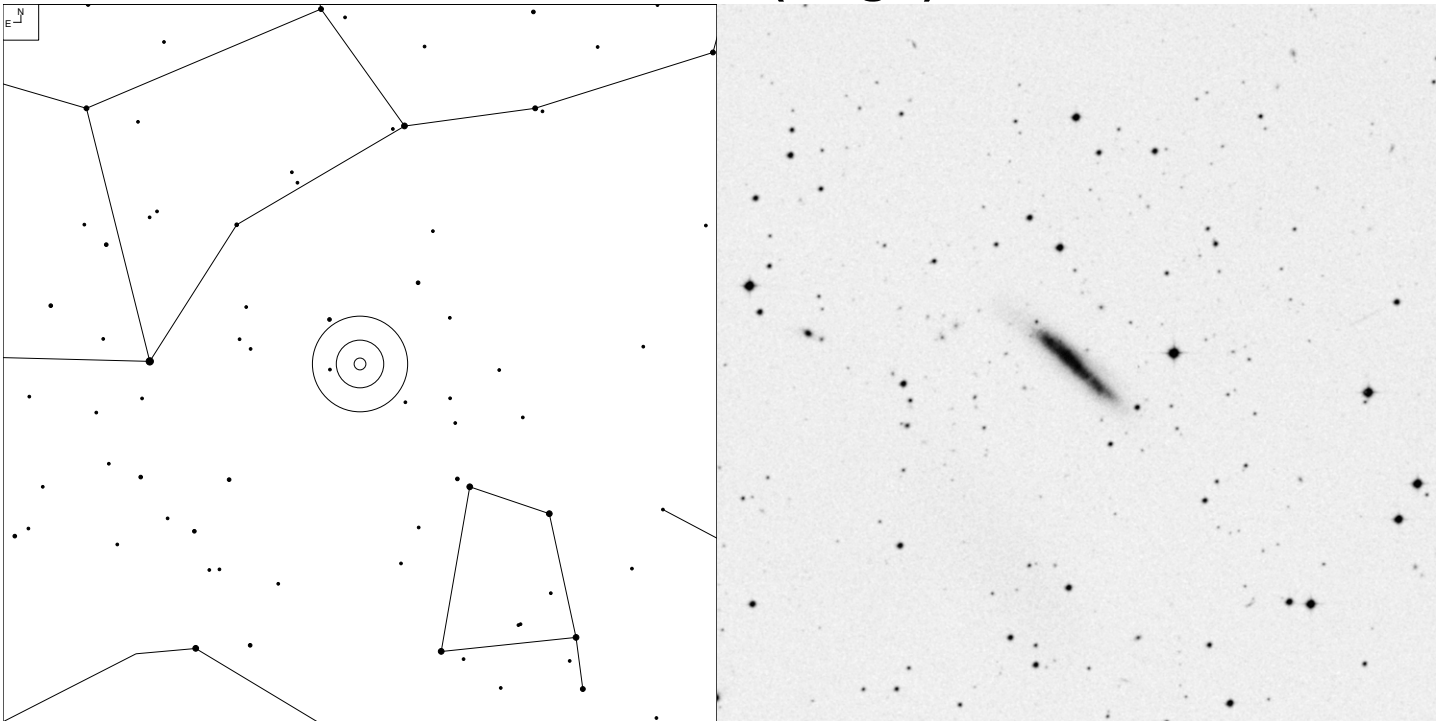
Name	RA	Dec	Mag	Size	Urano
IC 3608	12h 38m 37.4s	+10°28'34"	14.6p	3.1 x 0.4'	90R

NGC 4703 (Virgo)



Name	RA	Dec	Mag	Size	Urano
NGC 4703	12h 49m 19.2s	-09°06'31"	14.5	4.0 x 0.7'	131R

NGC 4700 (Virgo)

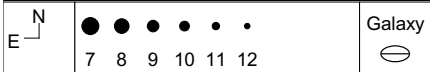
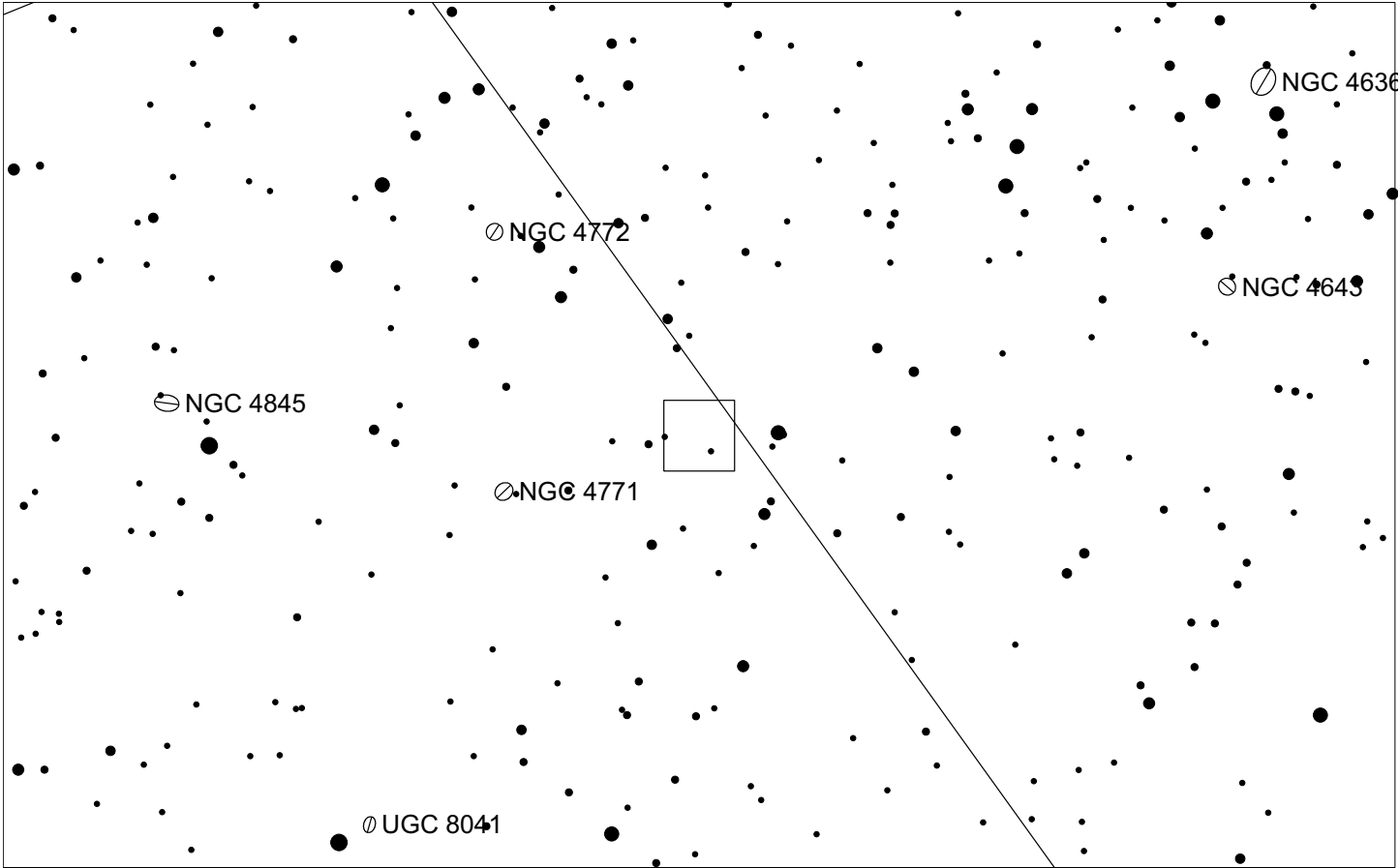
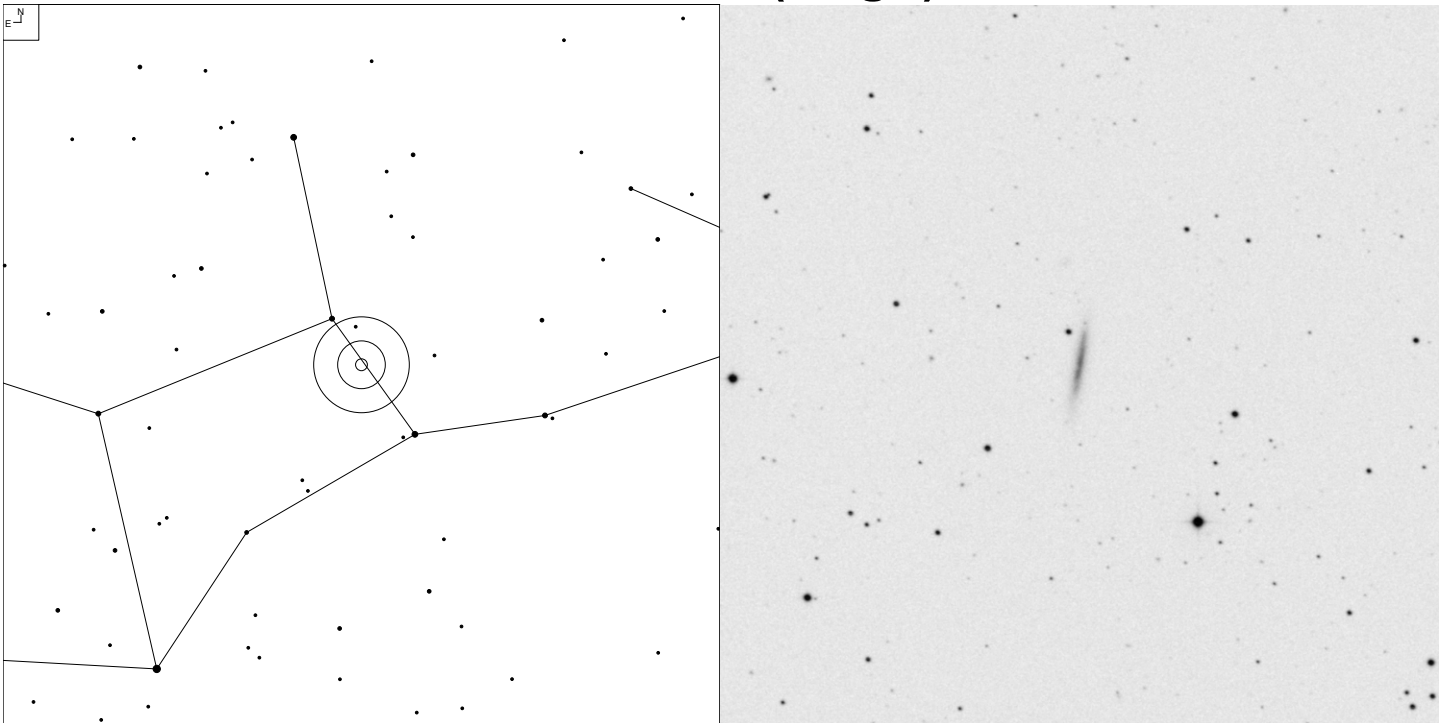


6 7 8 9 10 11 12

Galaxy

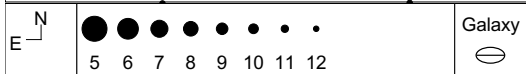
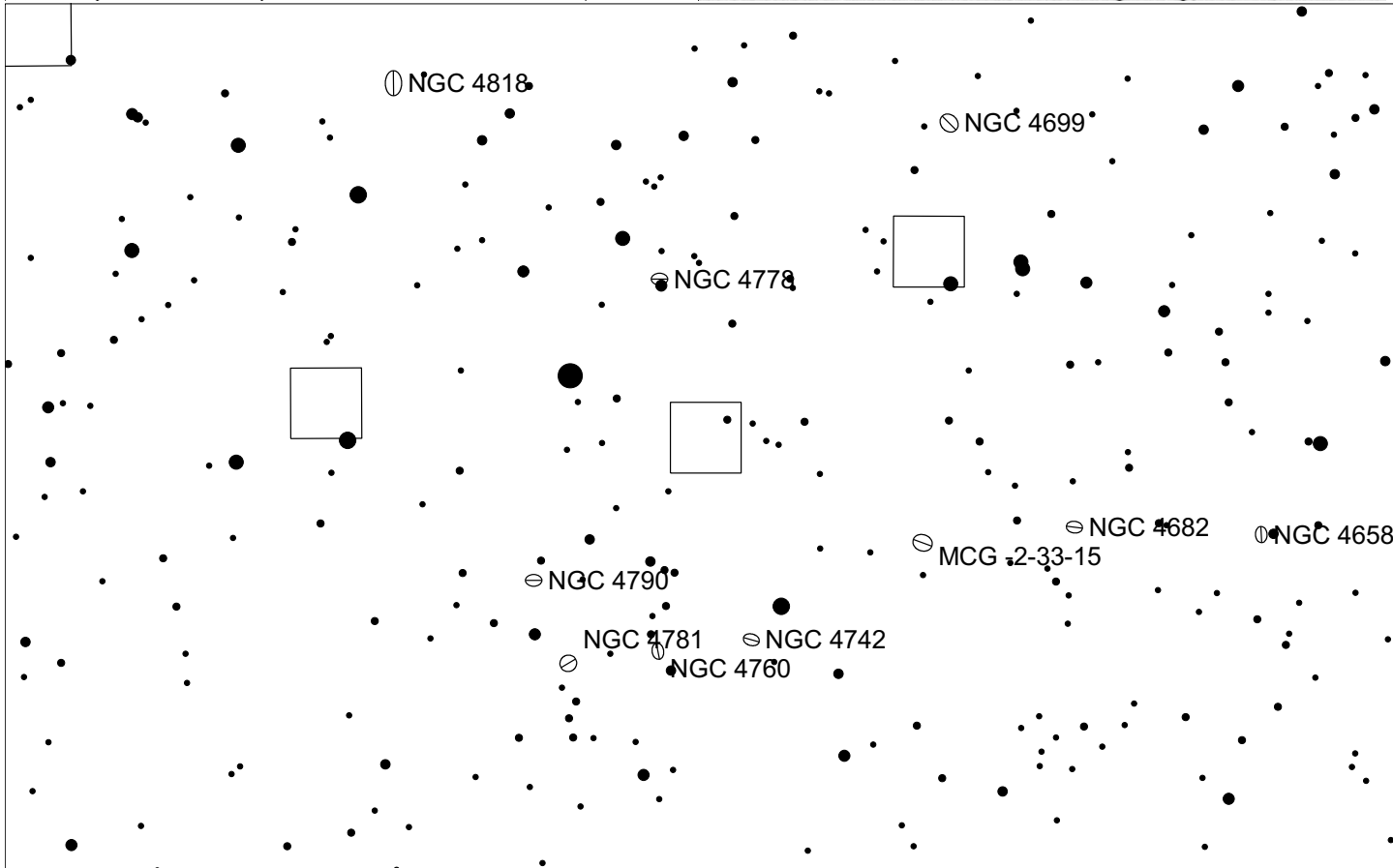
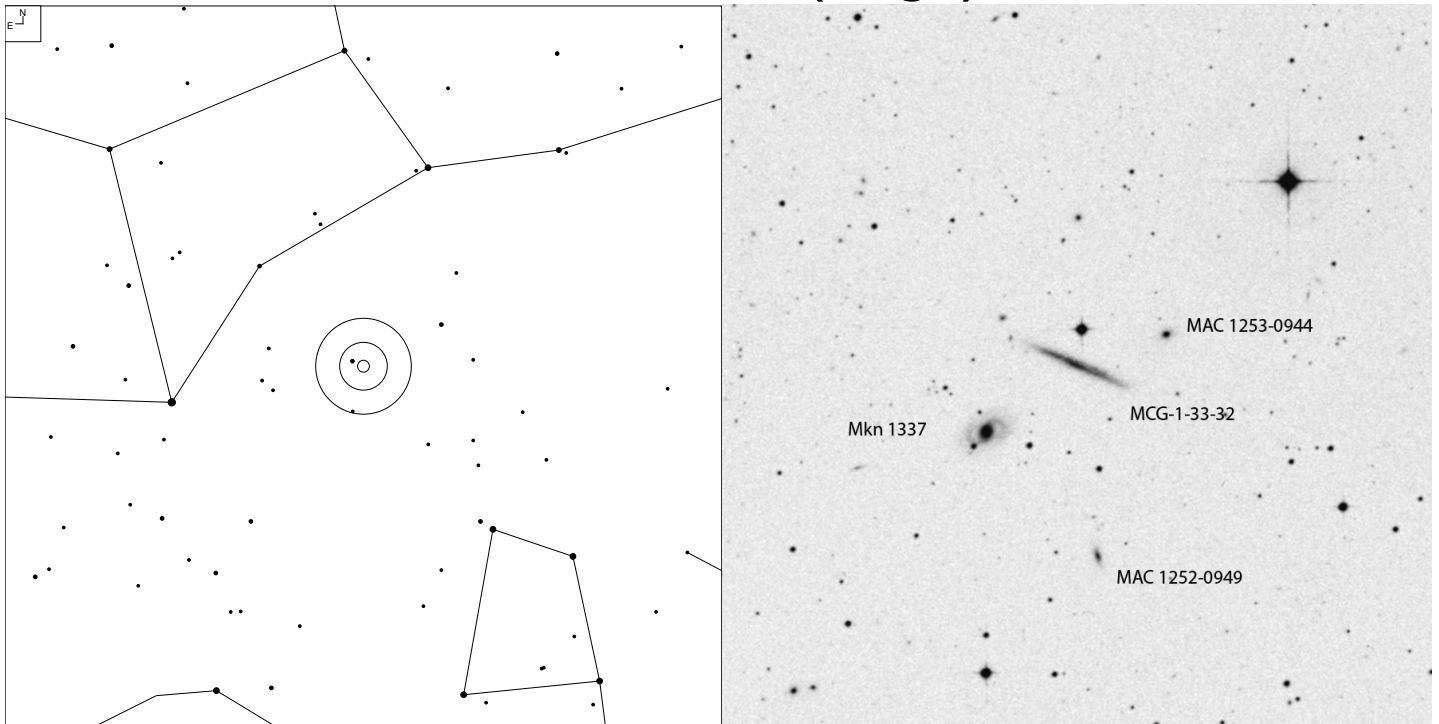
Name	RA	Dec	Mag	Size	Urano
NGC 4700	12h 49m 07.7s	-11°24'42"	12.6p	3.0 x 0.5'	131R

UGC 7991 (Virgo)



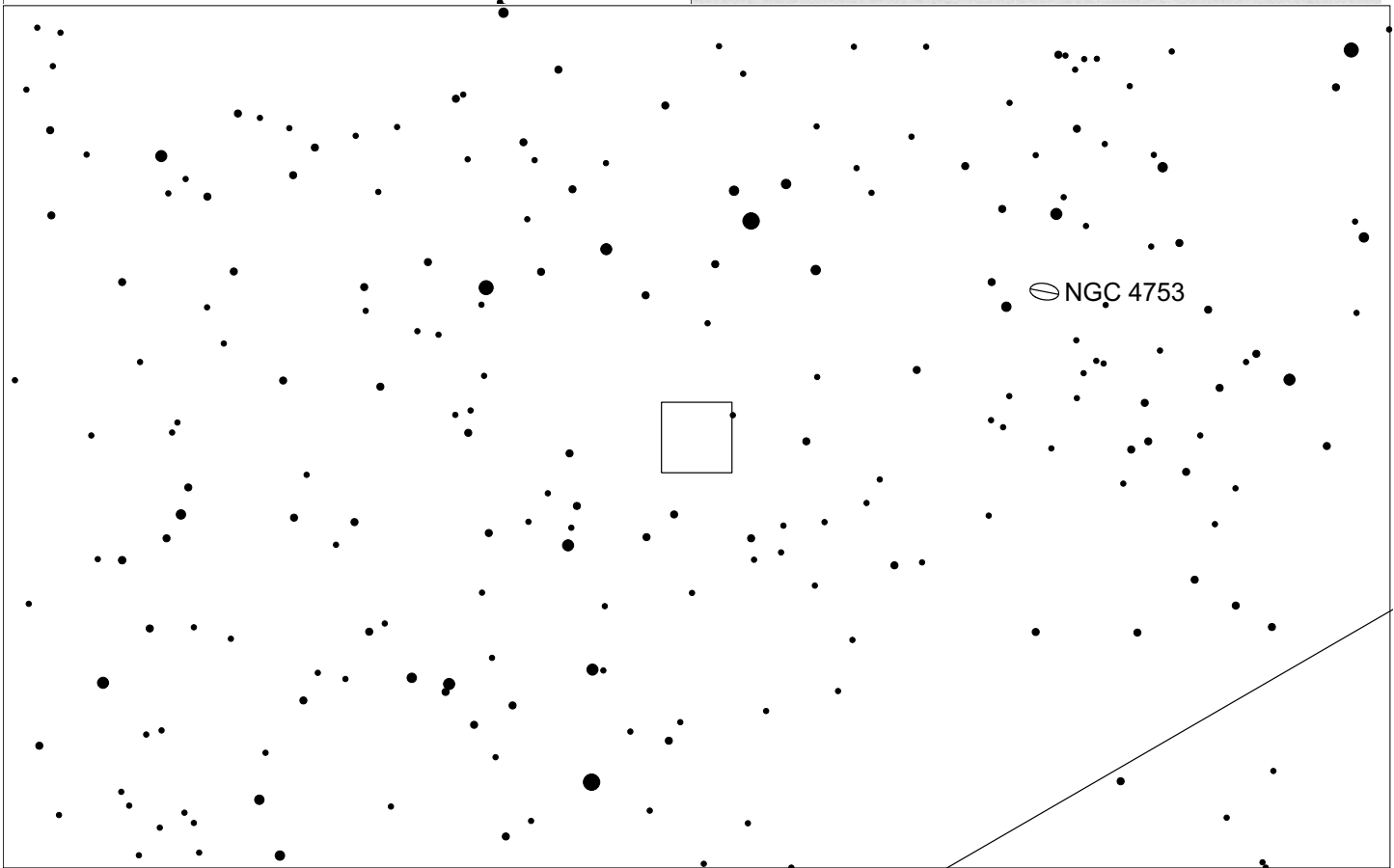
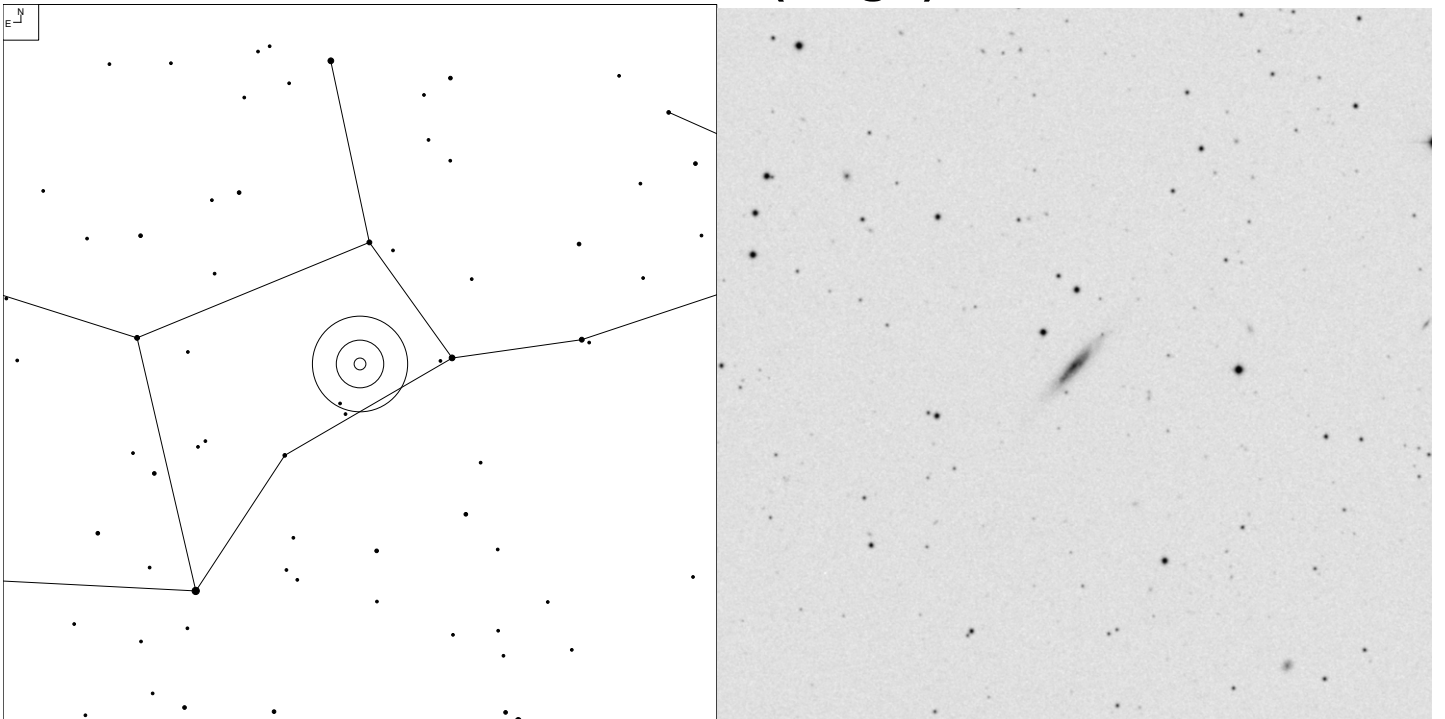
Name	RA	Dec	Mag	Size	Urano
UGC 7991	12h 50m 39.1s	+01°27'52"	14.8p	1.7 x 0.2'	110R

MCG-1-33-32 (Virgo)



Name	RA	Dec	Mag	Size	Urano
MCG-1-33-32	12h 52m 26.4s	-09°45'13"	16.0	2.9 x 0.3'	131R

UGC 8067 (Virgo)

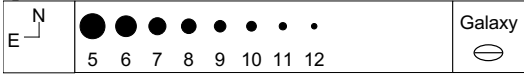
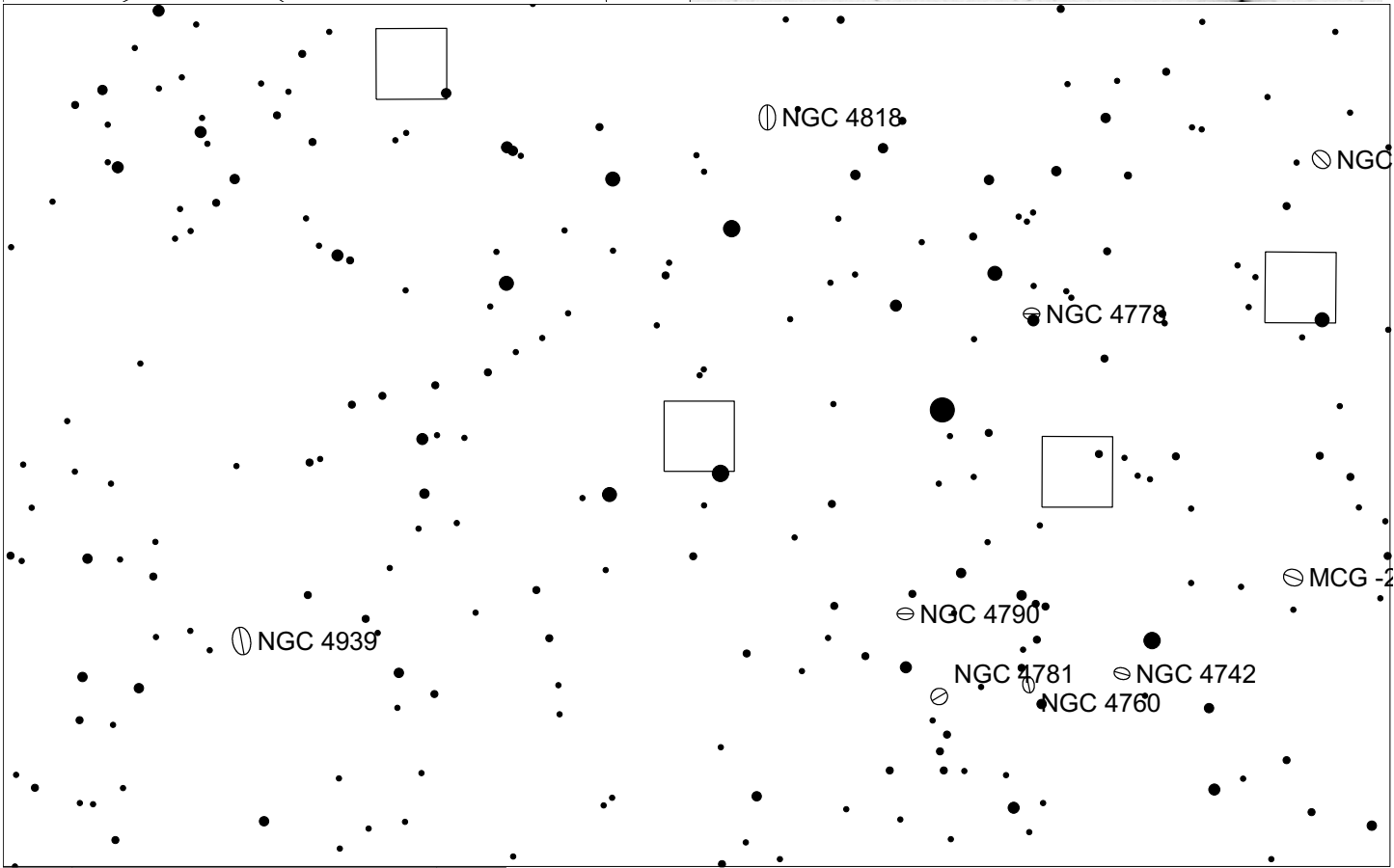
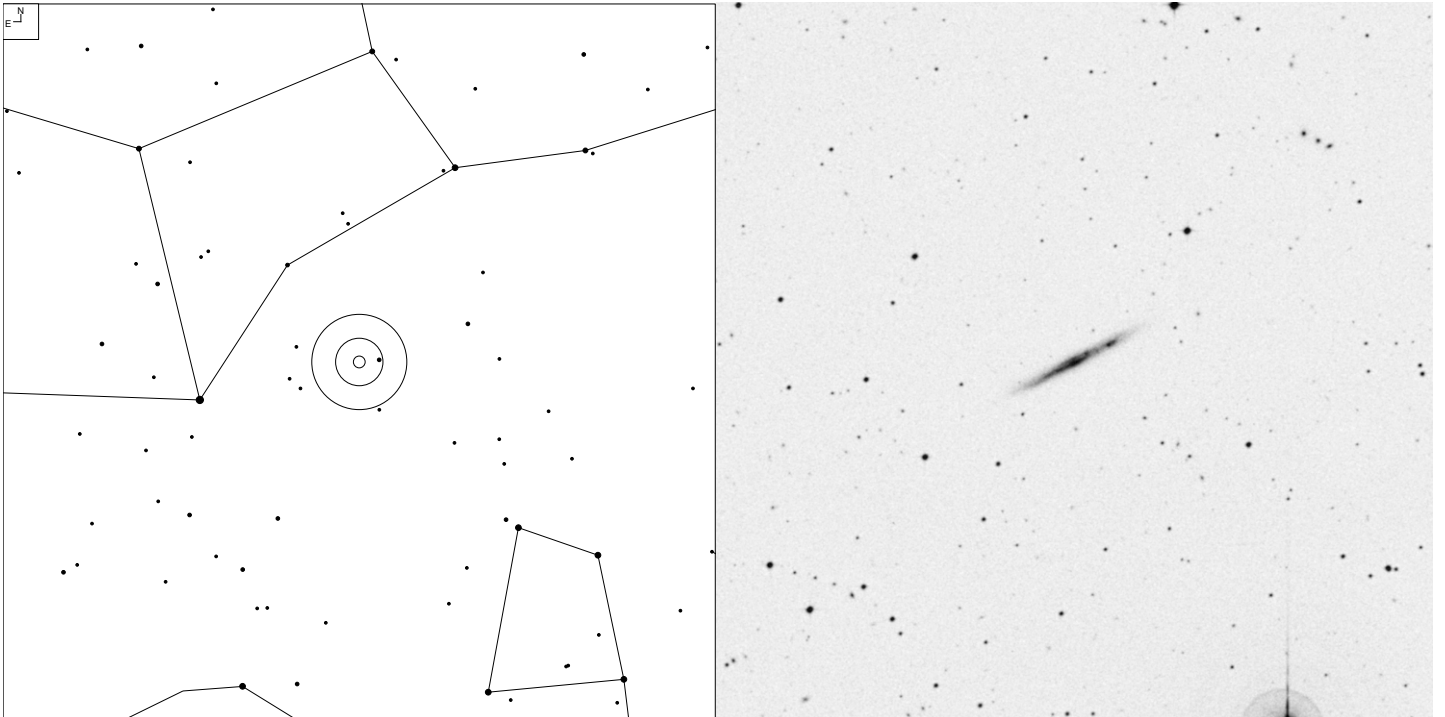


7 8 9 10 11 12 13

Galaxy

Name	RA	Dec	Mag	Size	Urano
UGC 8067	12h 57m 12.0s	-01°42'25"	14.2p	2.0 x 0.3'	110R

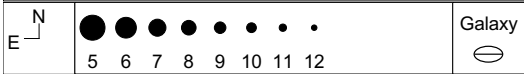
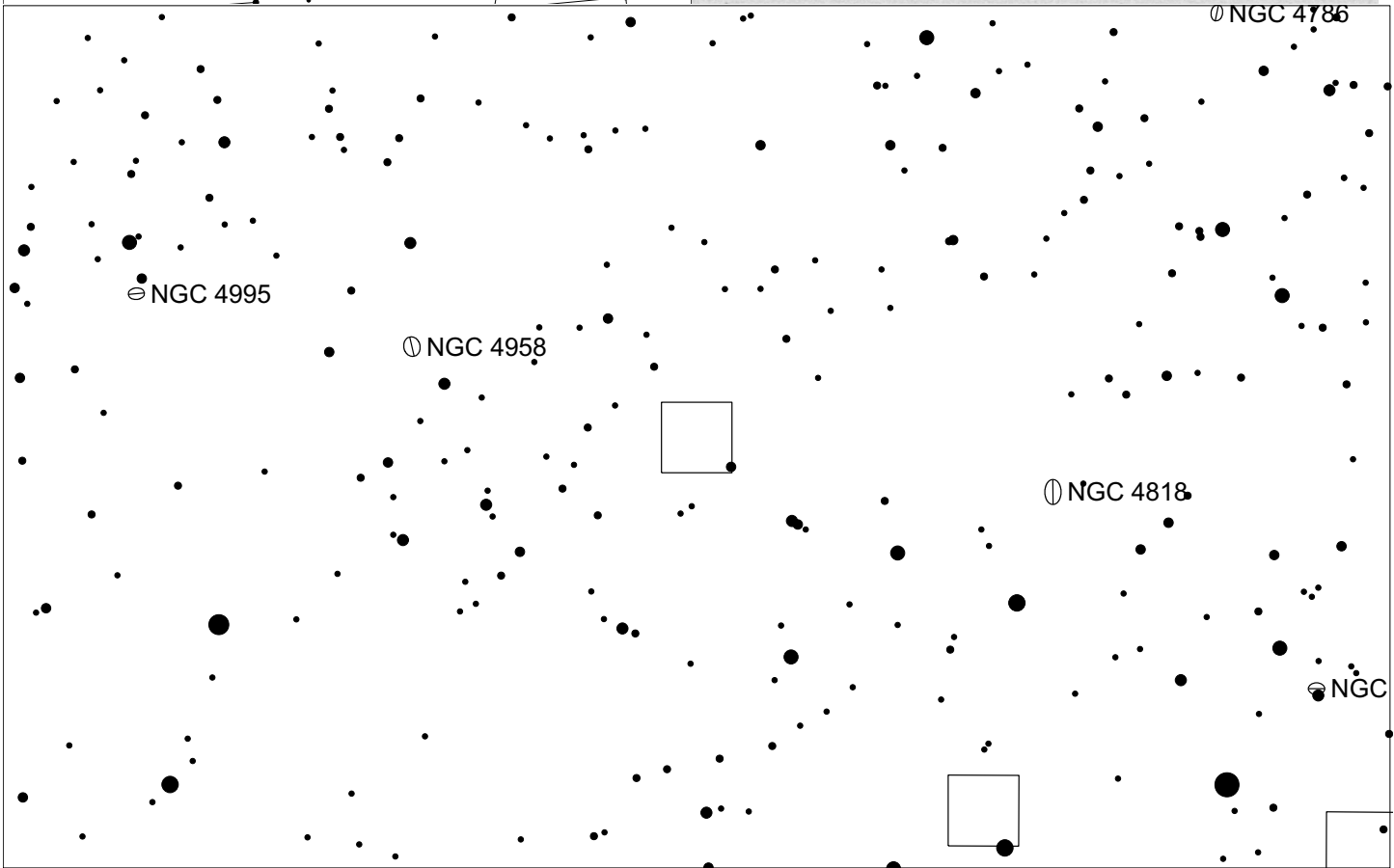
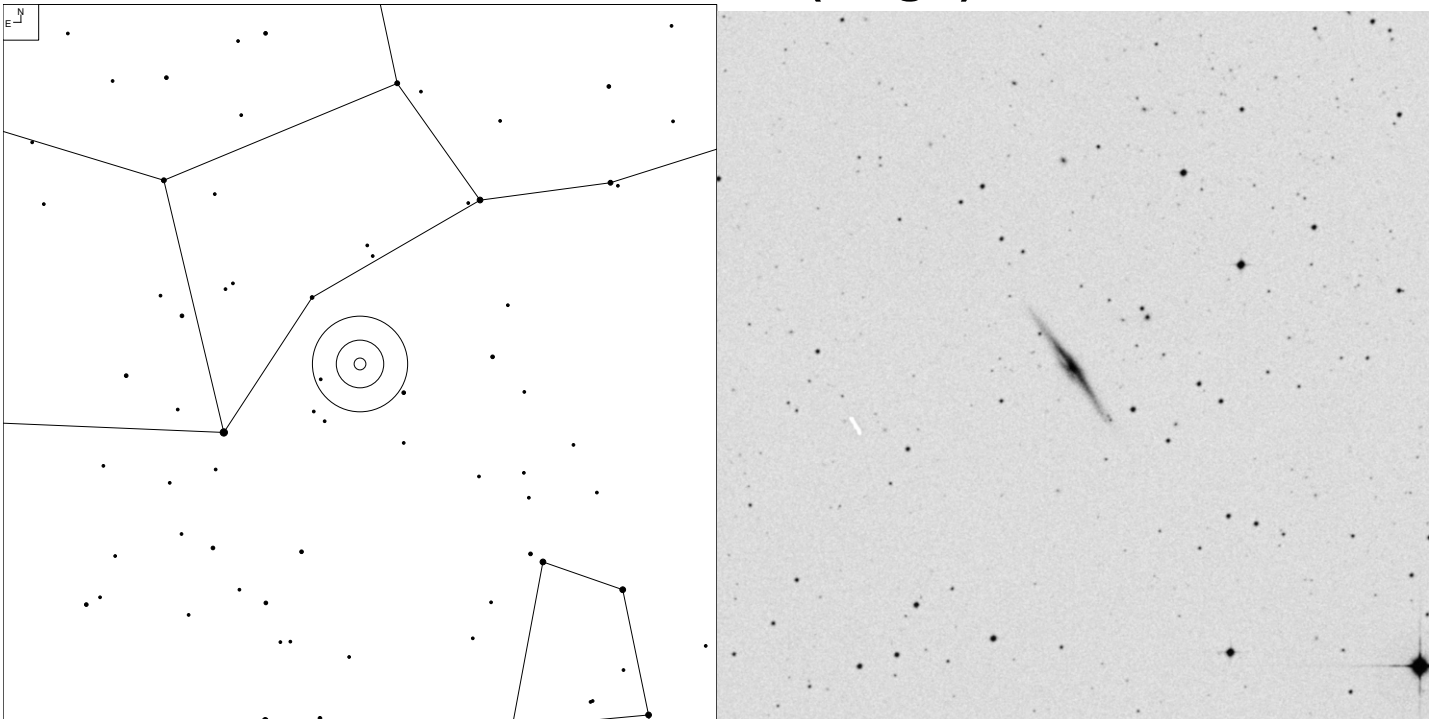
MCG-1-33-60 (Virgo)



Name	RA	Dec	Mag	Size	Urano
MCG-1-33-60	12h 57m 46.7s	-09°37'56"	13.5	3.1 x 0.3'	131R
UGCA 311					

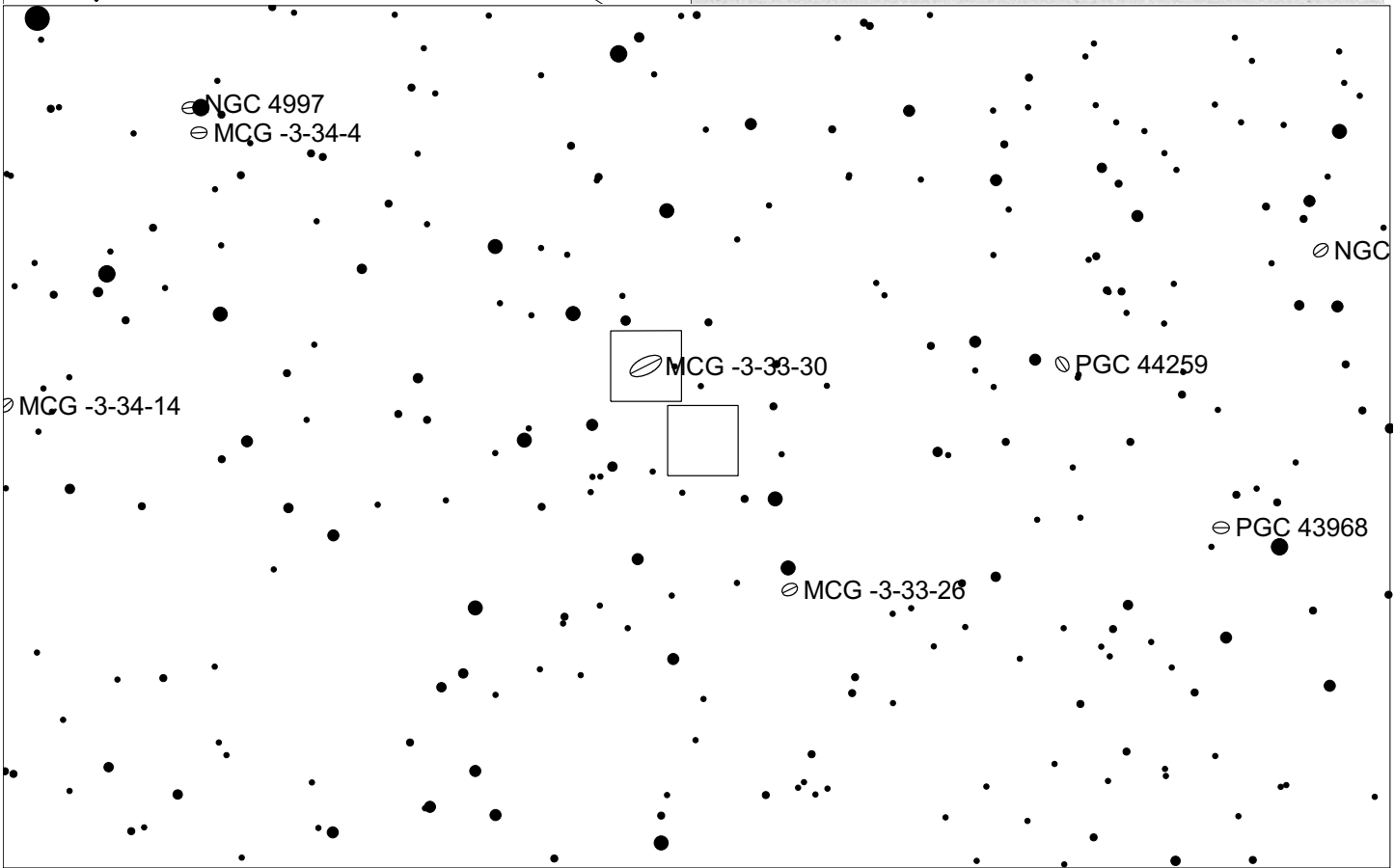
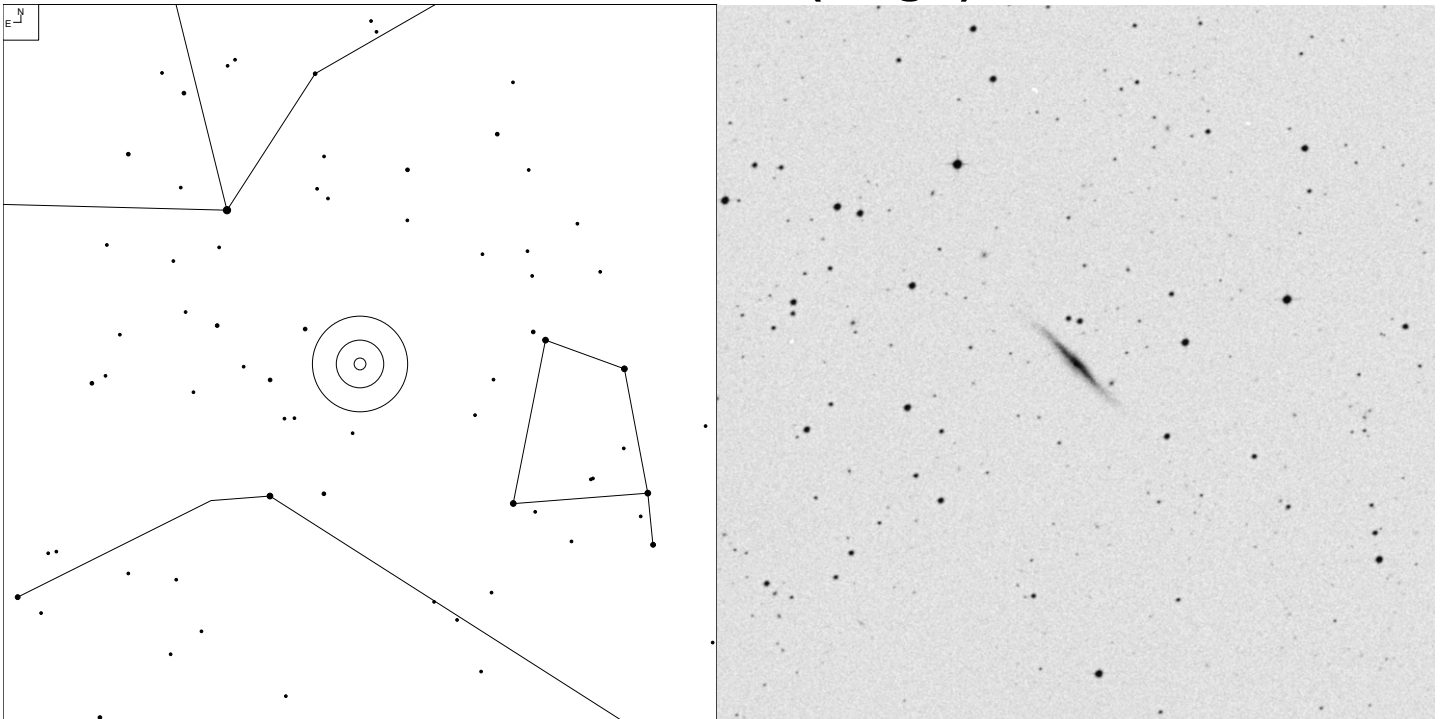
Flat Galaxies

MCG-1-33-71 (Virgo)



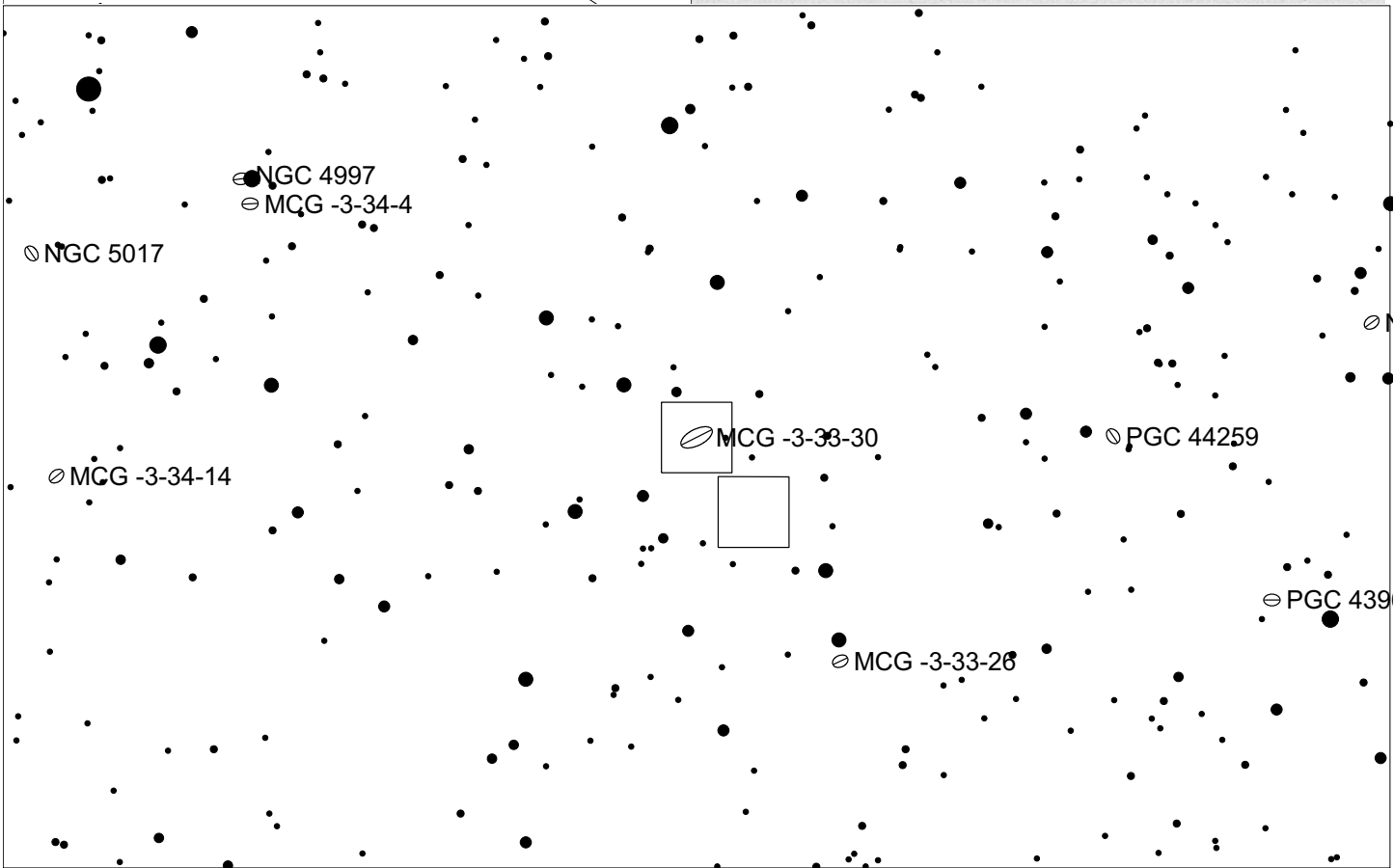
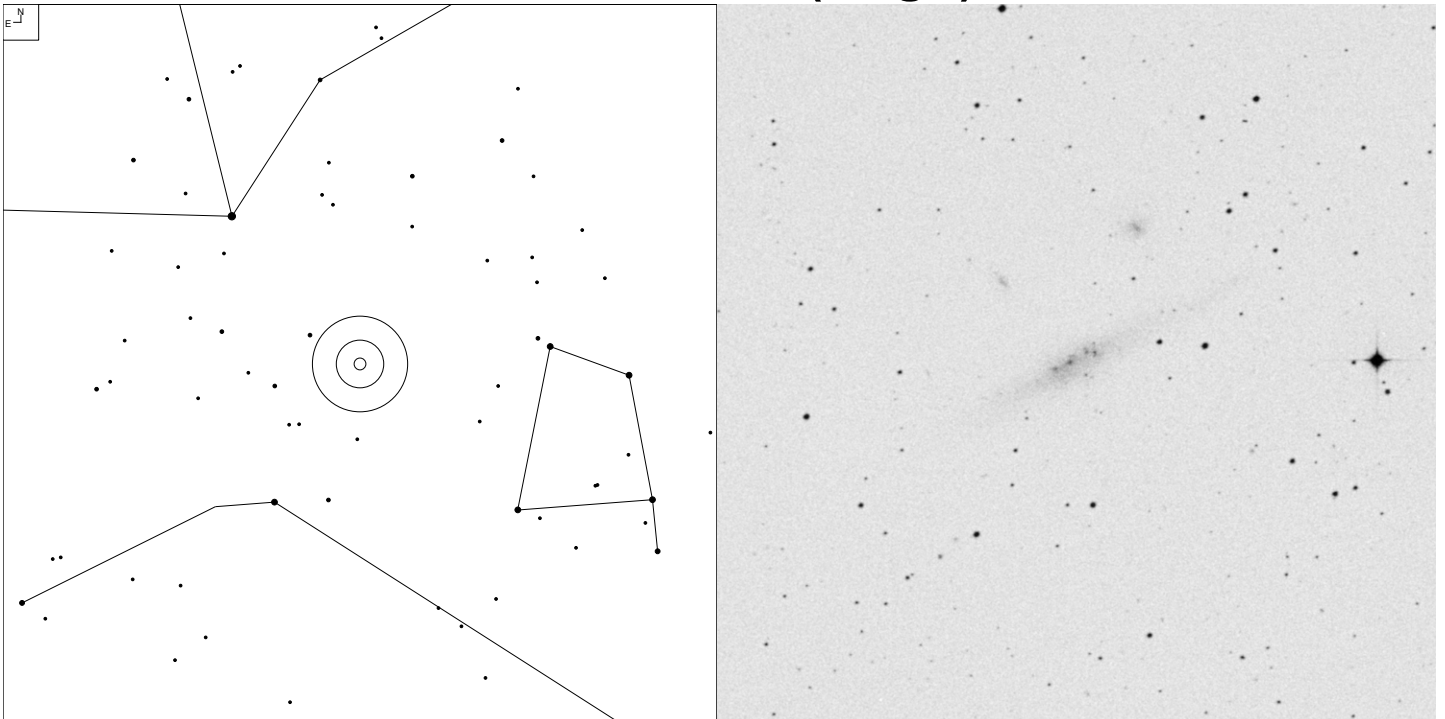
Name	RA	Dec	Mag	Size	Urano
MCG-1-33-71	13h 01m 49.4s	-08°20'10"	15.2	3.1 x 0.4'	131R

MCG-3-33-28 (Virgo)



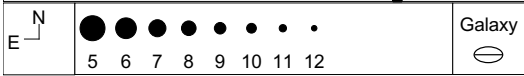
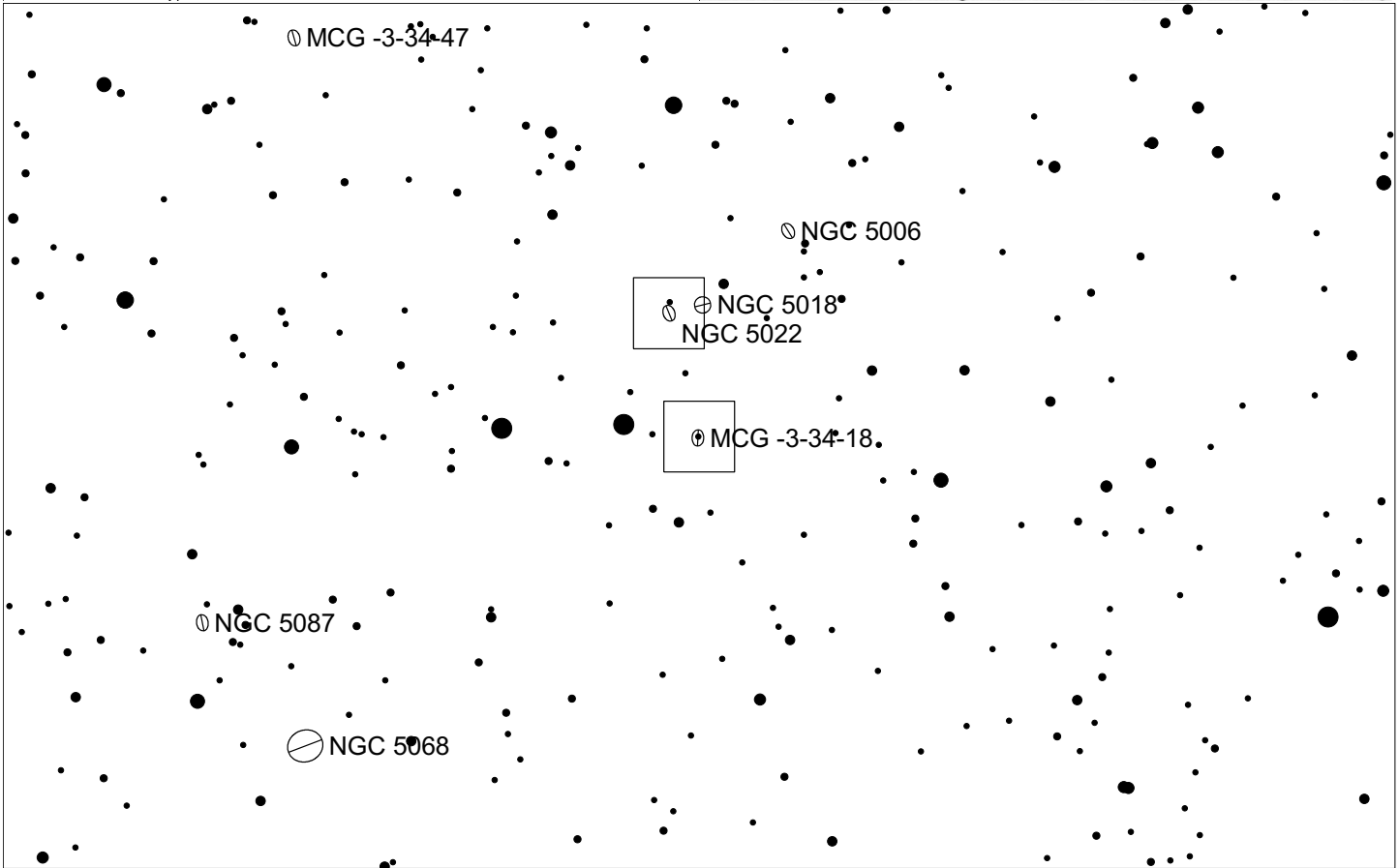
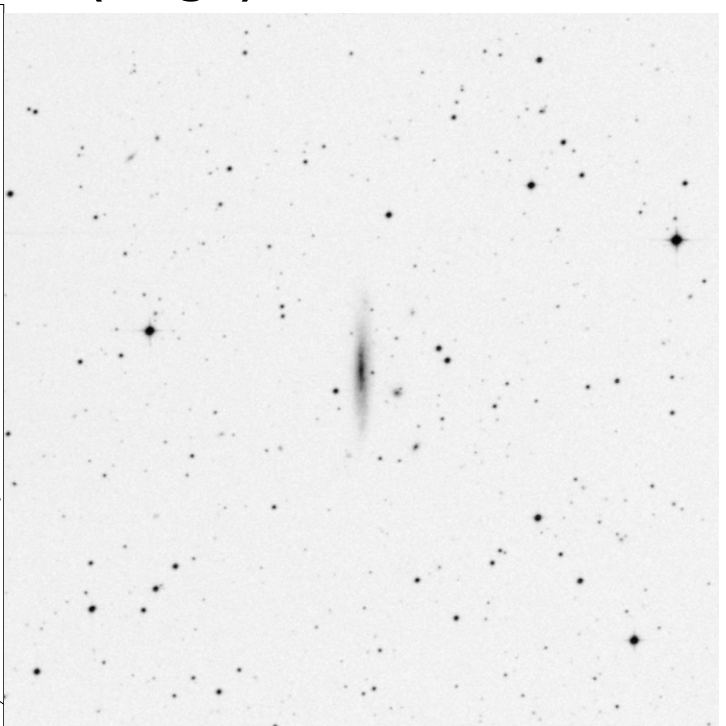
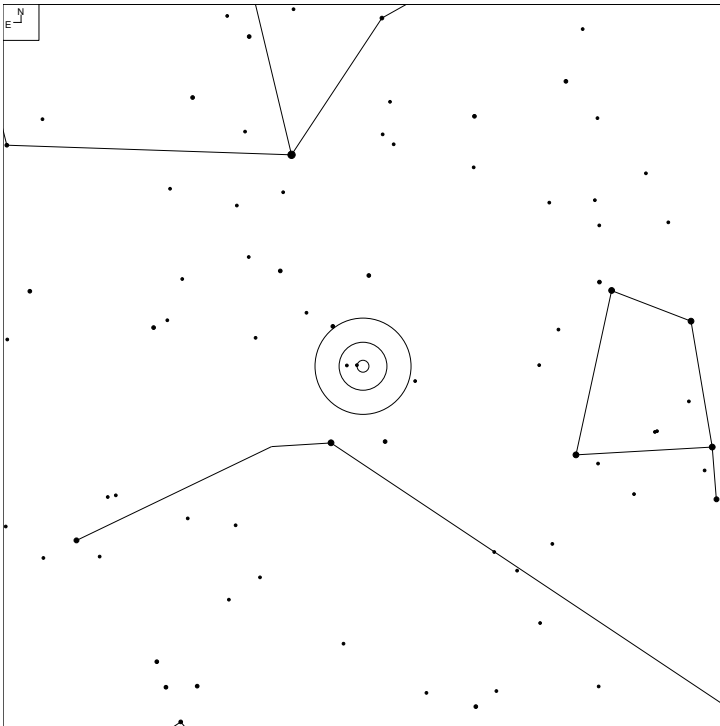
Name	RA	Dec	Mag	Size	Urano
MCG-3-33-28	13h 02m 26.4s	-17°40'48"	14.6	3.4 x 0.3'	149R

MCG-3-33-30 (Virgo)



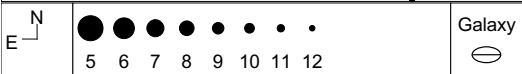
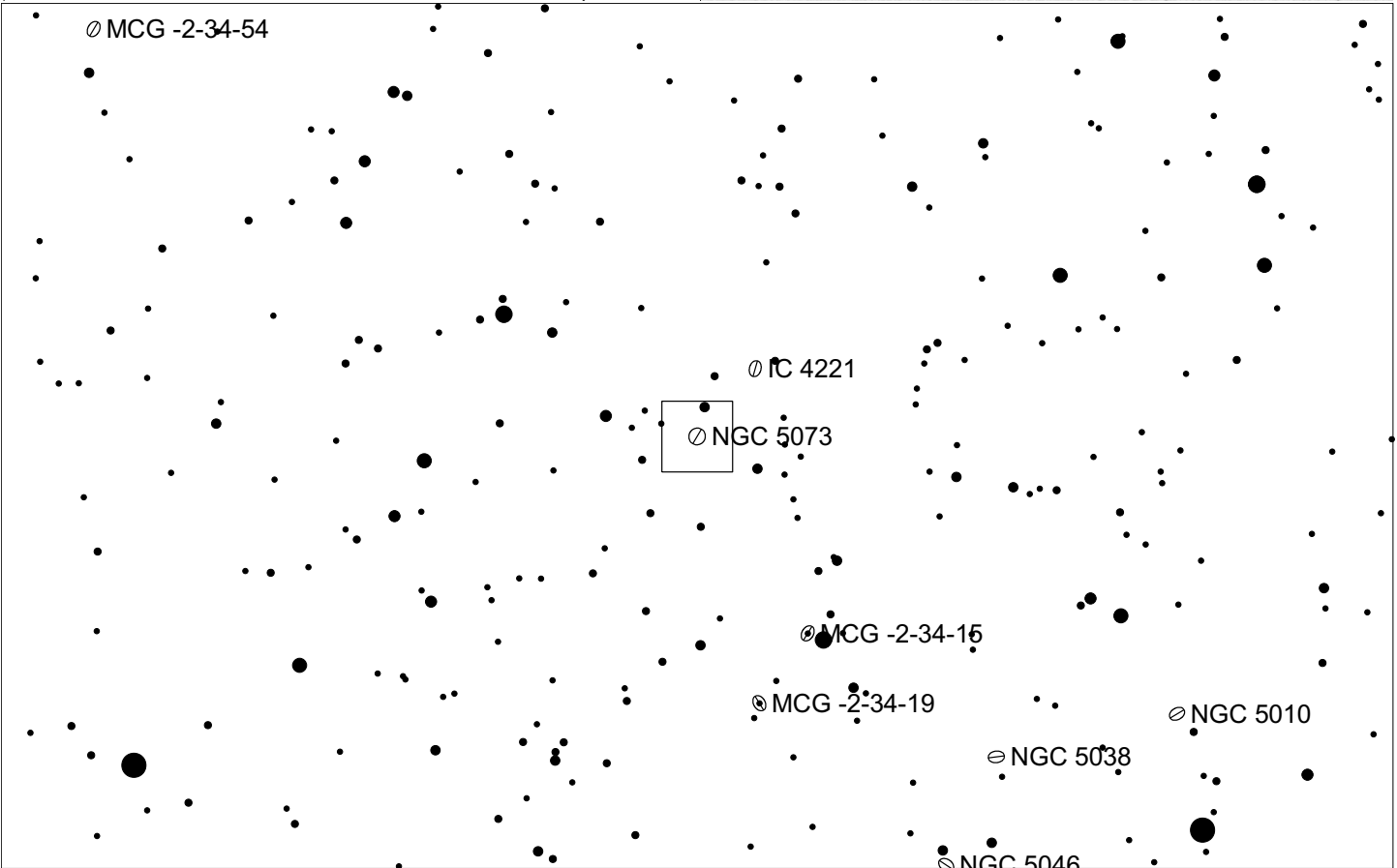
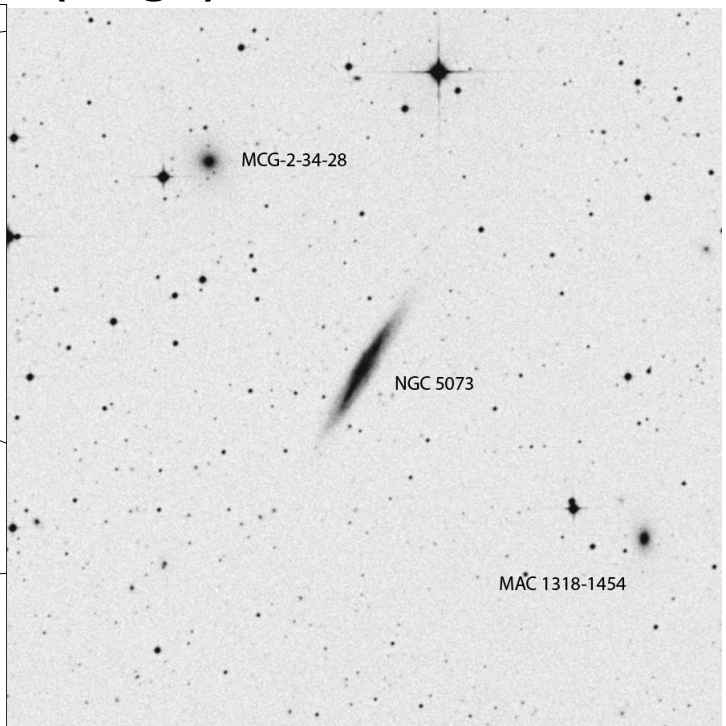
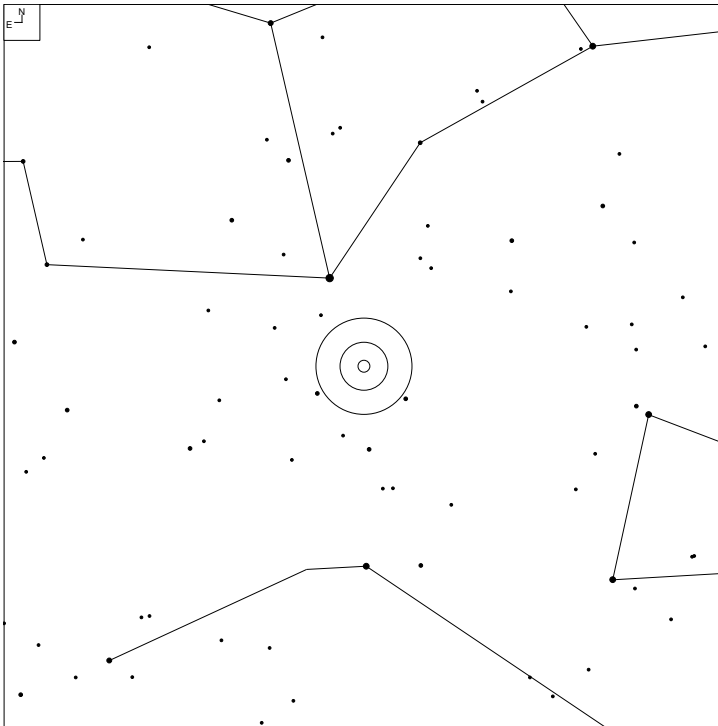
Name	RA	Dec	Mag	Size	Urano
MCG-3-33-30	13h 03m 15.6s	-17°25'13"	13.5b	7.1 x 0.8'	131R
UGCA 320					

MCG-3-34-18 (Virgo)



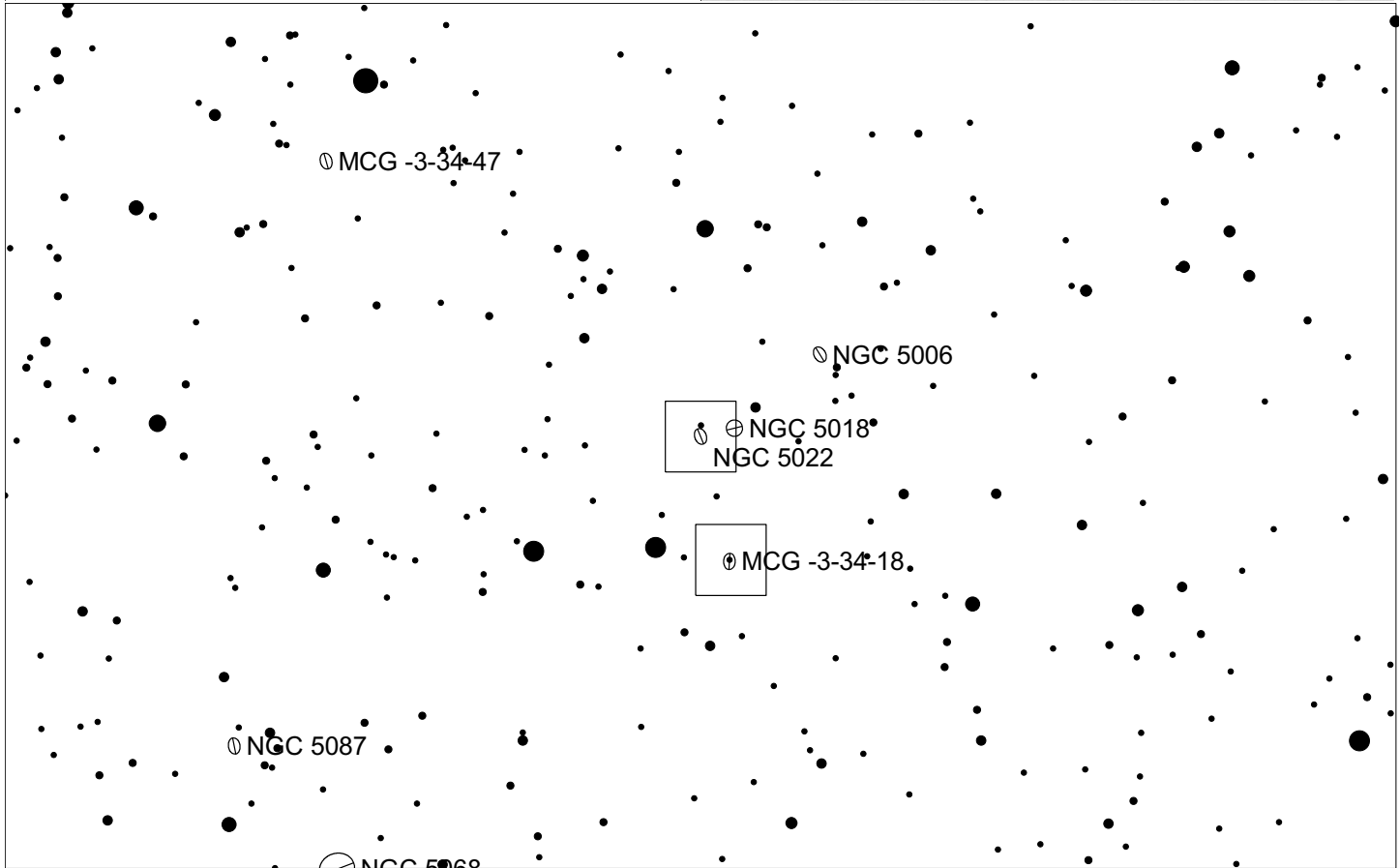
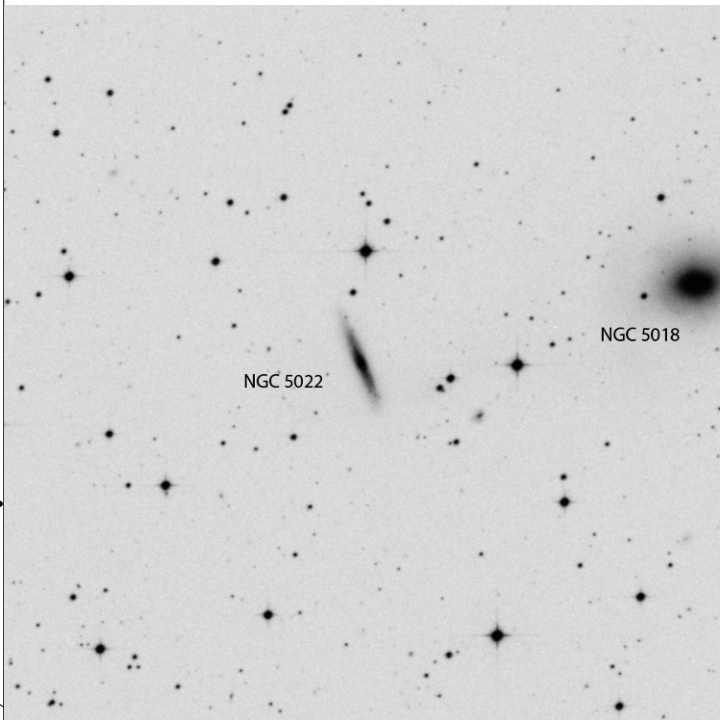
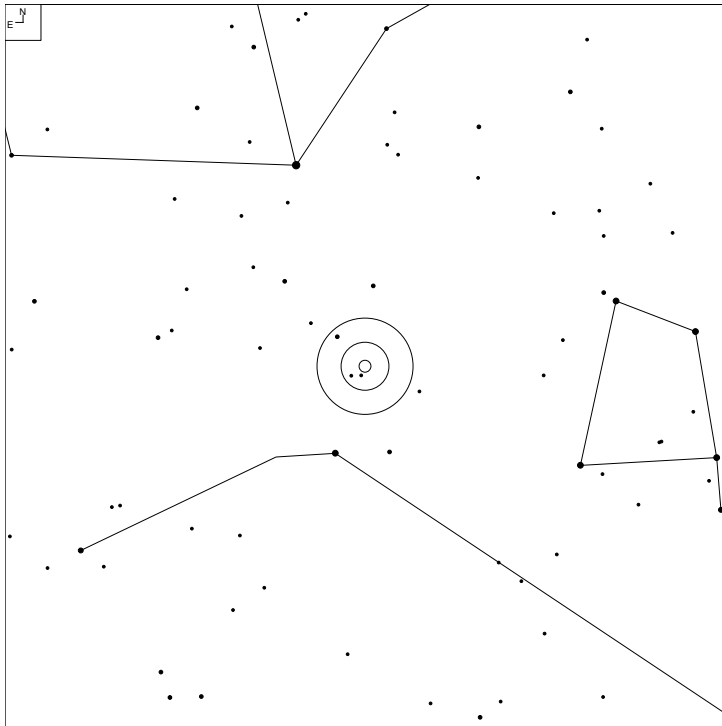
Name	RA	Dec	Mag	Size	Urano
MCG-3-34-18	13h 13m 05.0s	-19°58'38"	14.0p	3.1 x 0.4'	149R

NGC 5073 (Virgo)



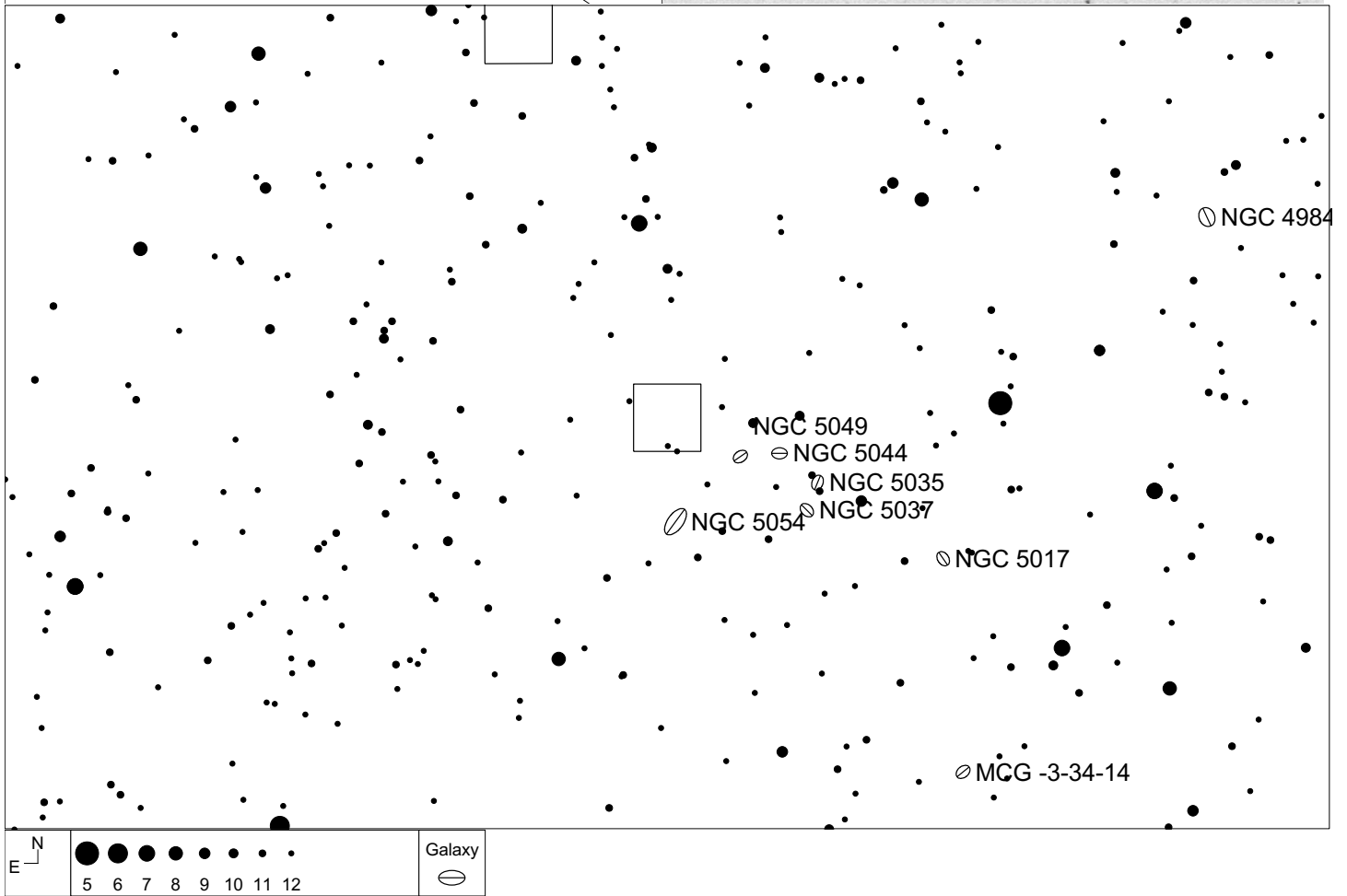
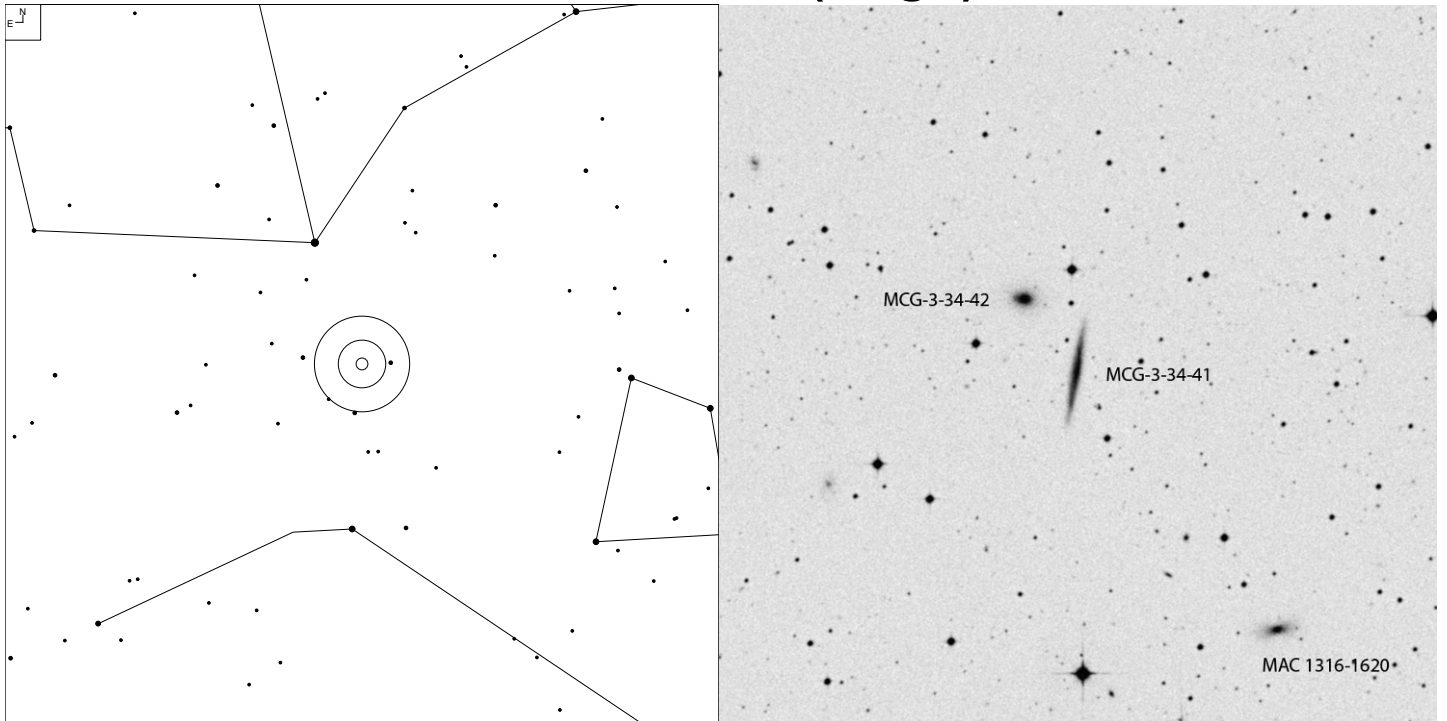
Name	RA	Dec	Mag	Size	Urano
NGC 5073	13h 13m 21.6s	-14°50'38"	13.1	3.4 x 0.6'	131R

NGC 5022 (Virgo)



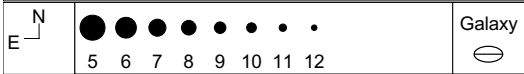
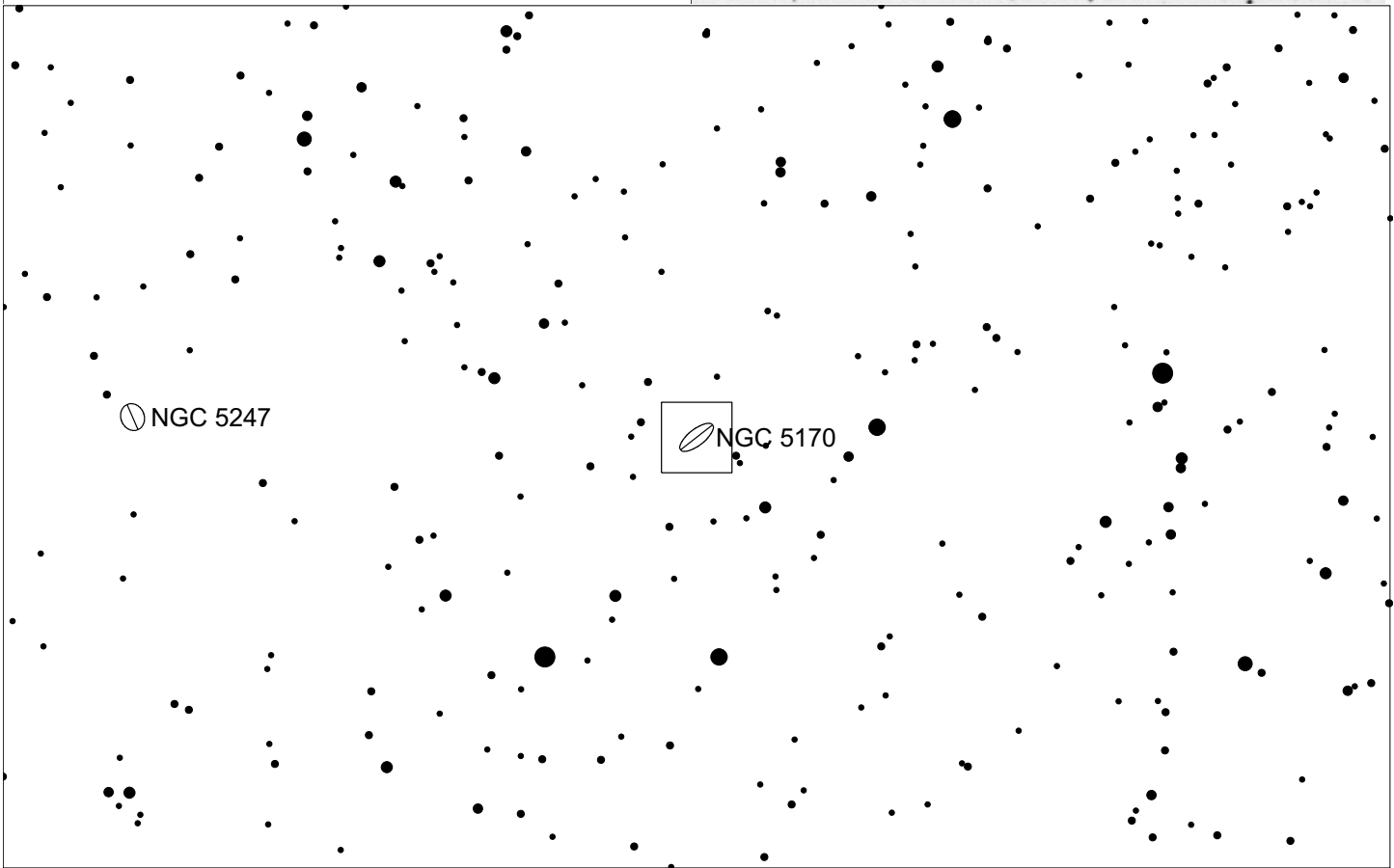
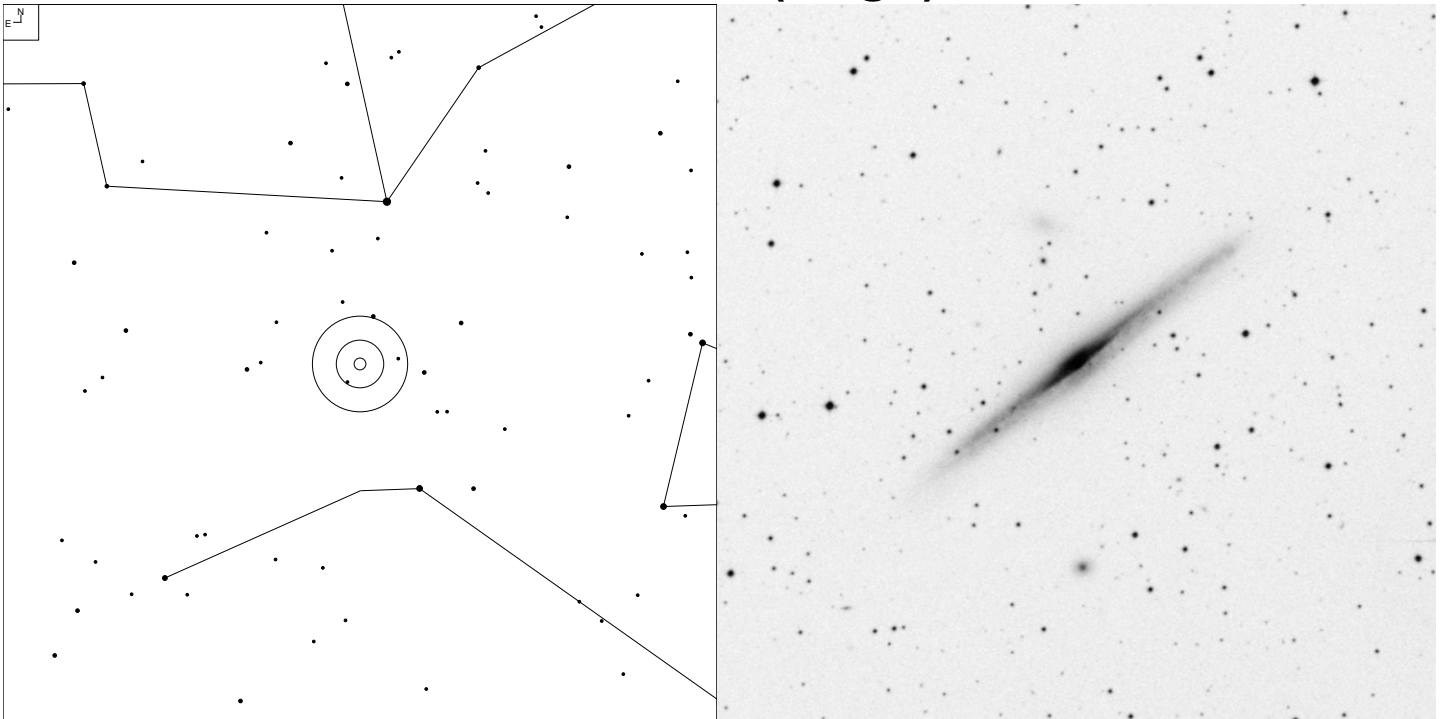
Name	RA	Dec	Mag	Size	Urano
NGC 5022	13h 13m 30.7s	-19°32'49"	13.7p	2.4 x 0.3'	149R

MCG-3-34-41 (Virgo)



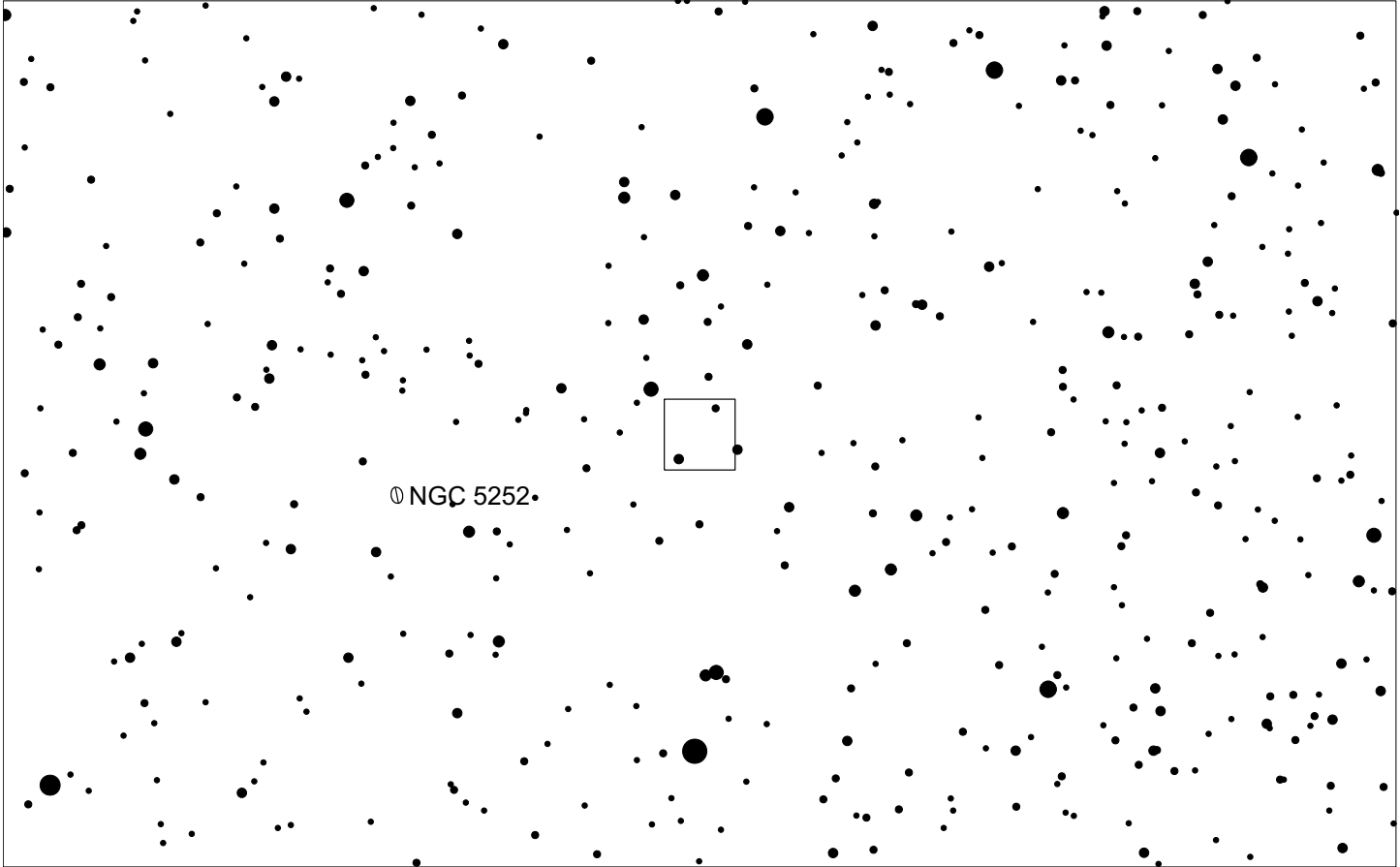
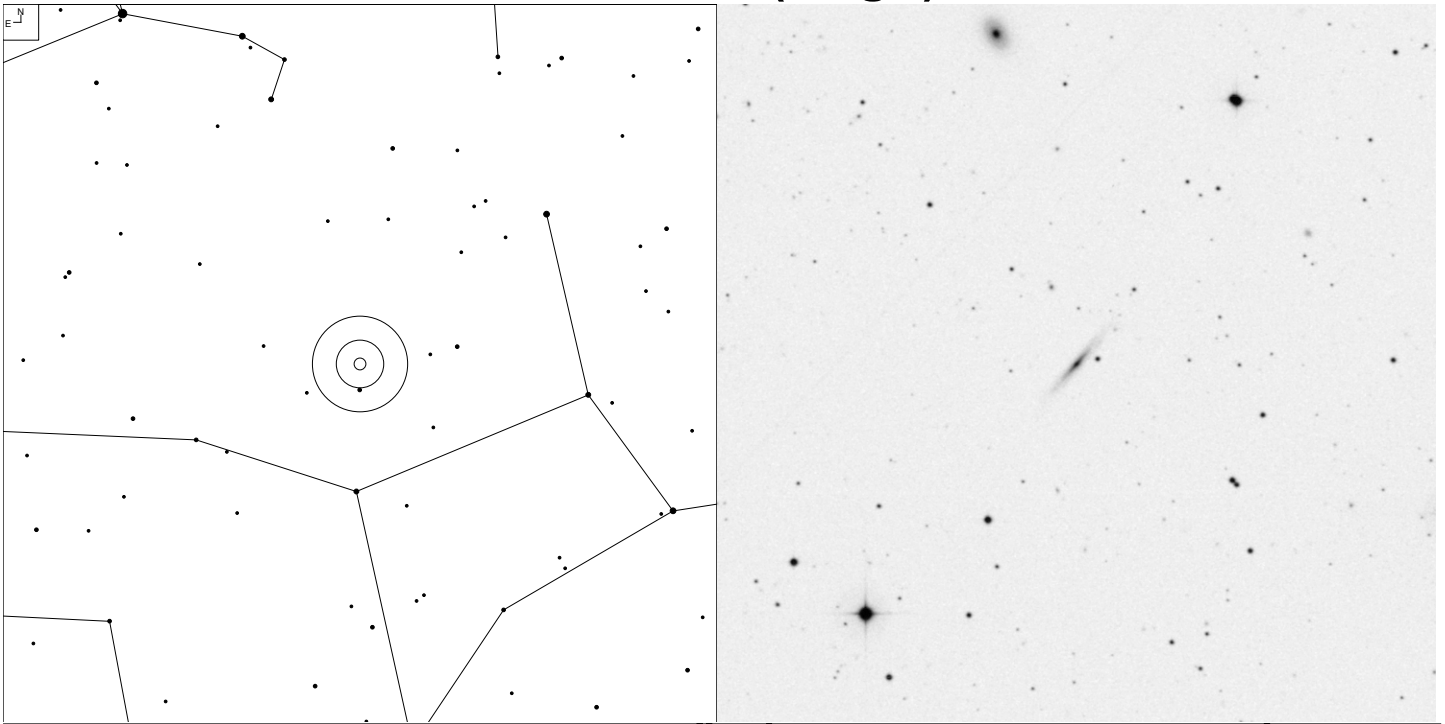
Name	RA	Dec	Mag	Size	Urano
MCG-3-34-41	13h 17m 07.2s	-16°15'18"	15.9	3.0 x 0.3'	131R

NGC 5170 (Virgo)



Name	RA	Dec	Mag	Size	Urano
NGC 5170	13h 29m 48.7s	-17°57'57"	12.1b	8.4 x 1.0'	149L

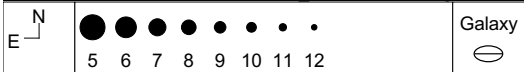
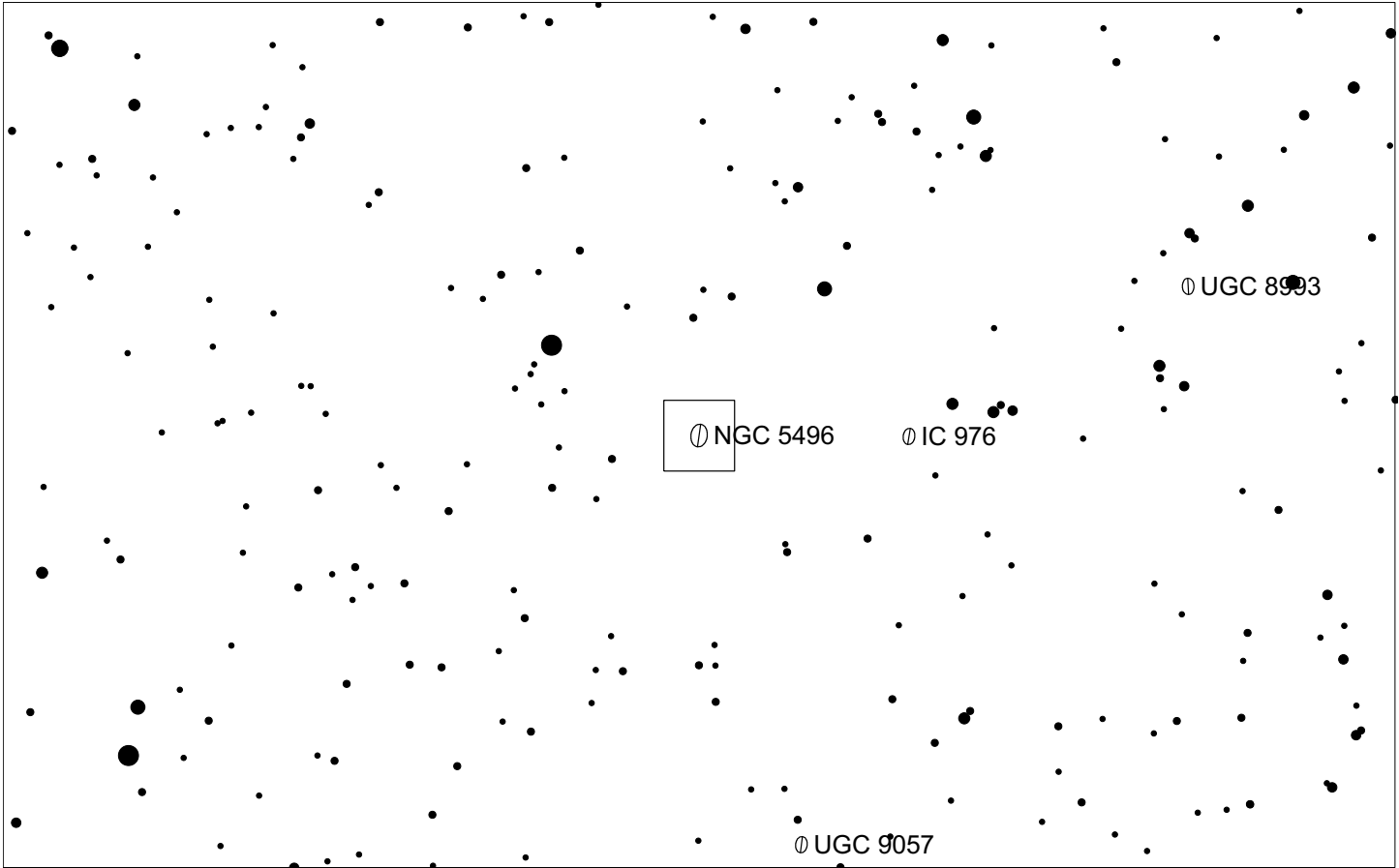
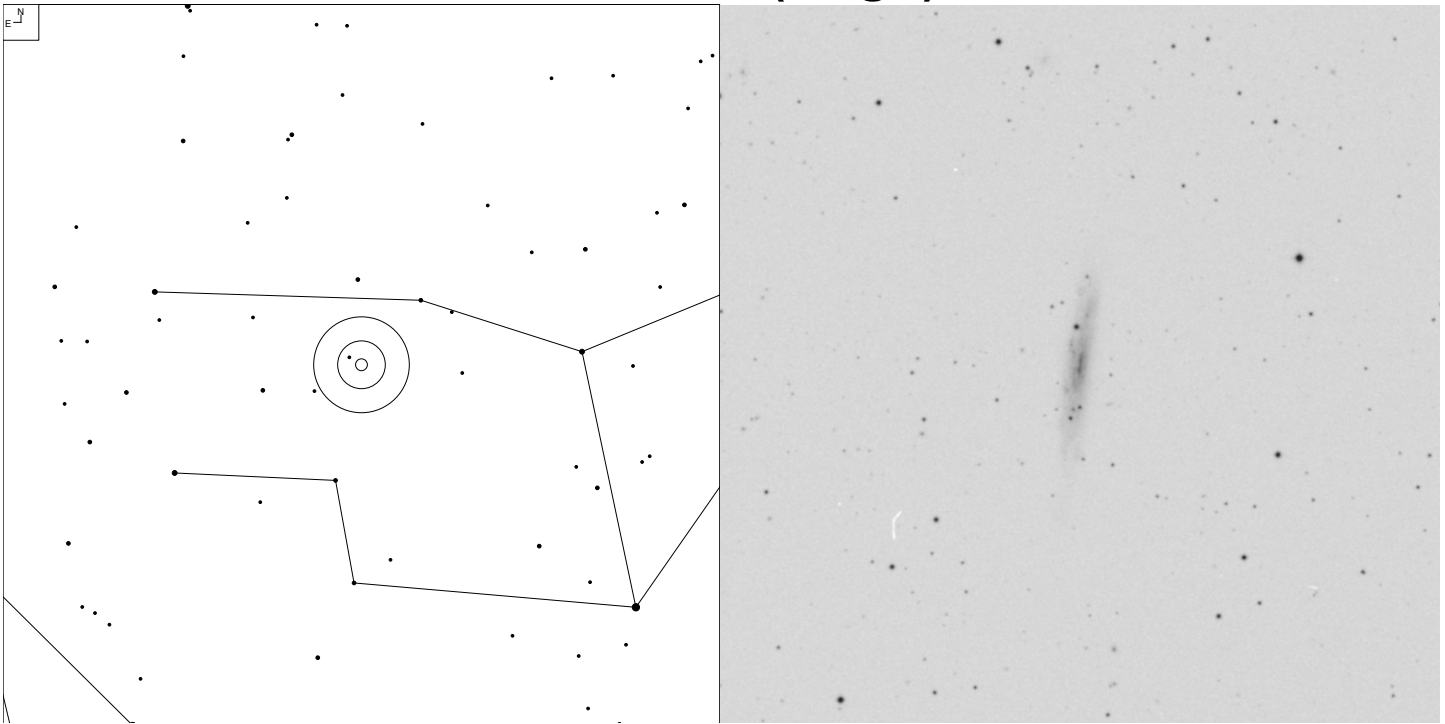
UGC 8543 (Virgo)



NGC 5252

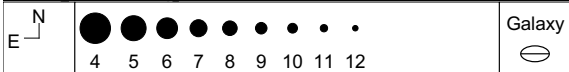
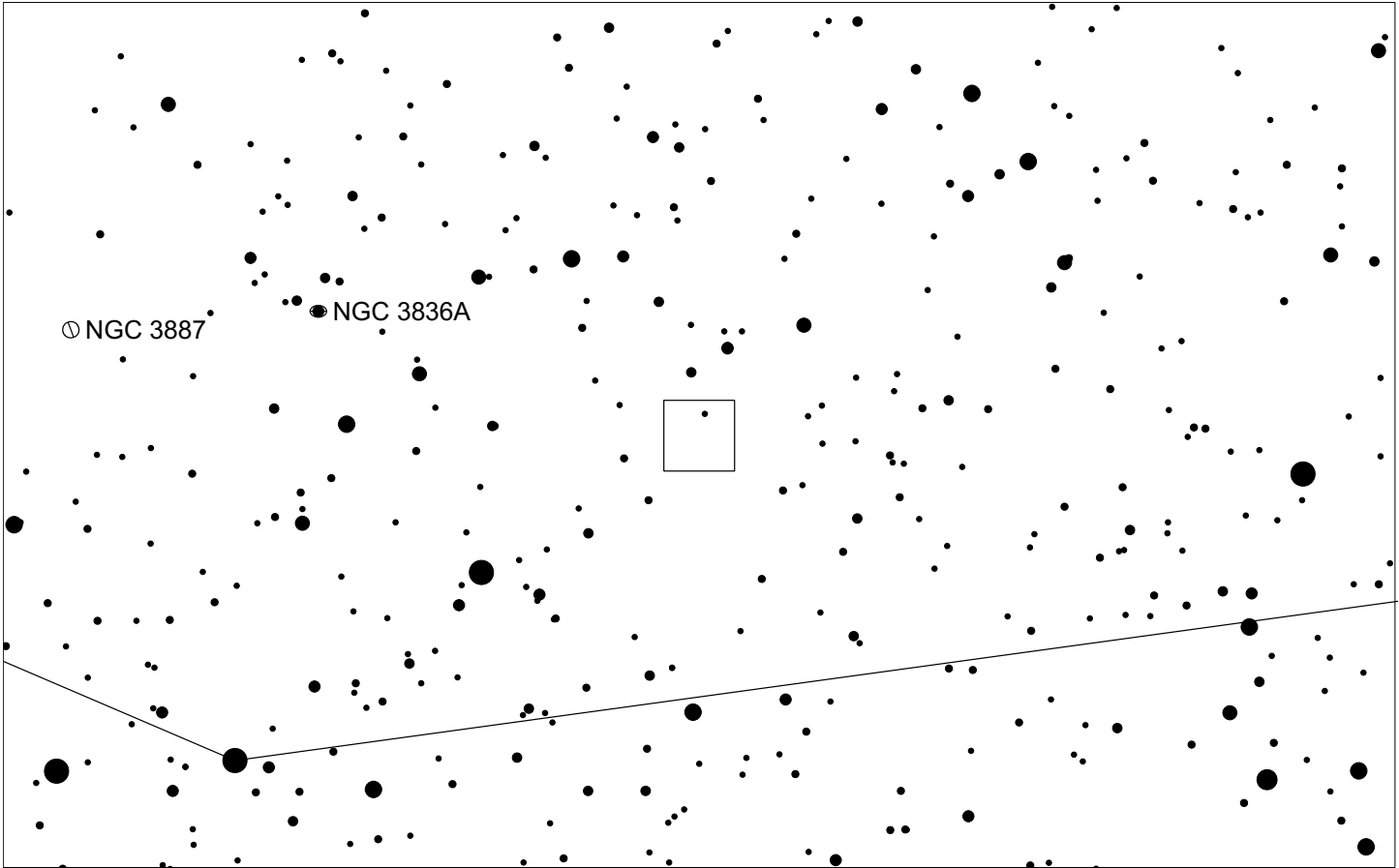
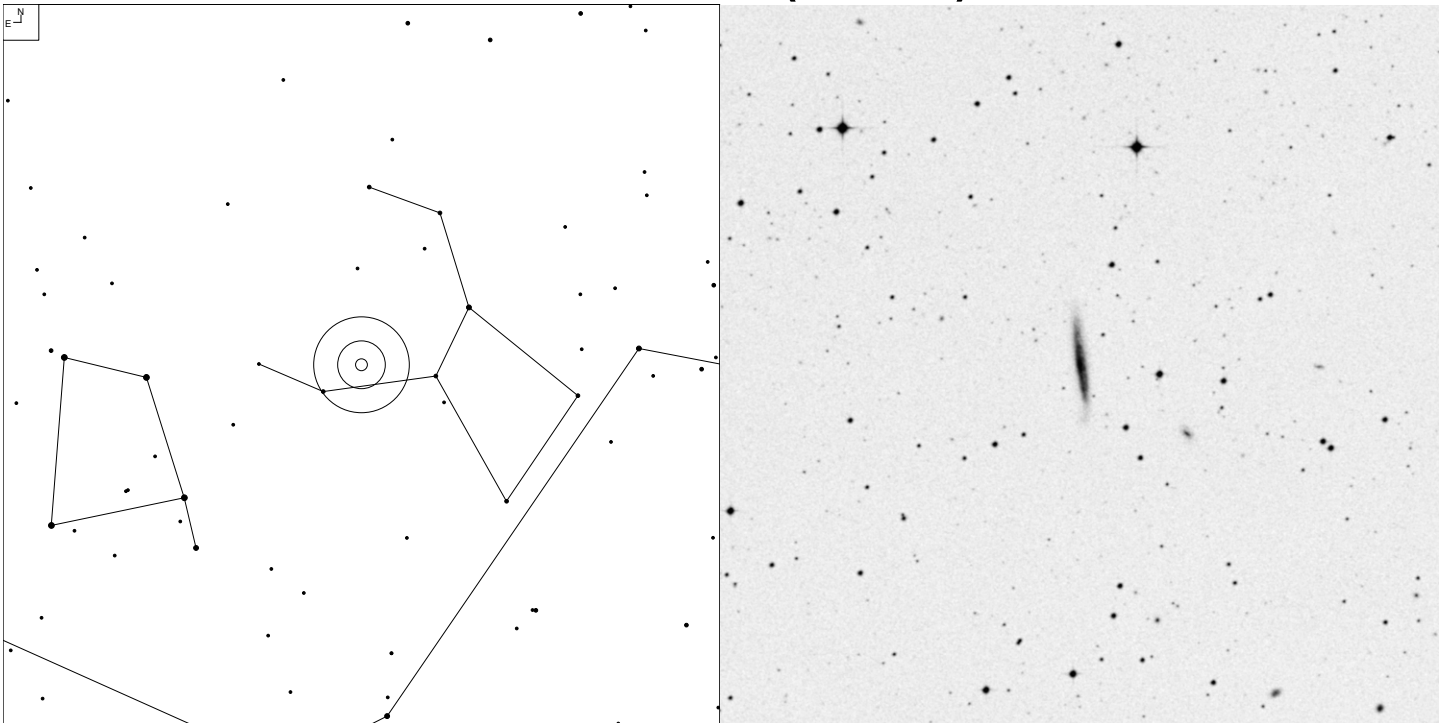
Name	RA	Dec	Mag	Size	Urano
UGC 8543	13h 34m 03.6s	+04°45'14"	14.5p	2.0 x 0.5'	110L

NGC 5496 (Virgo)



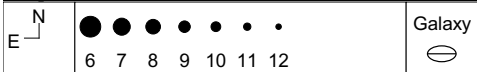
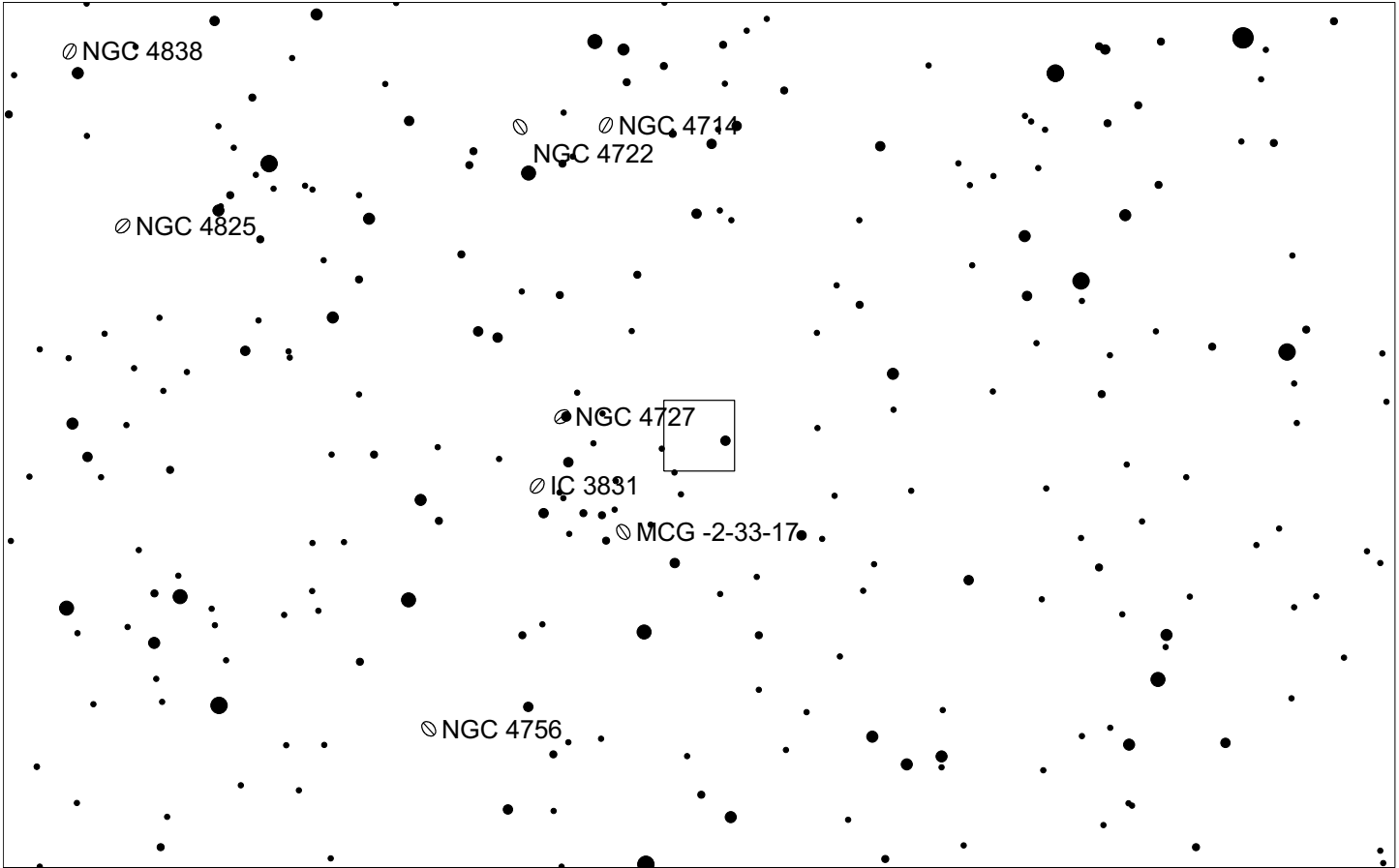
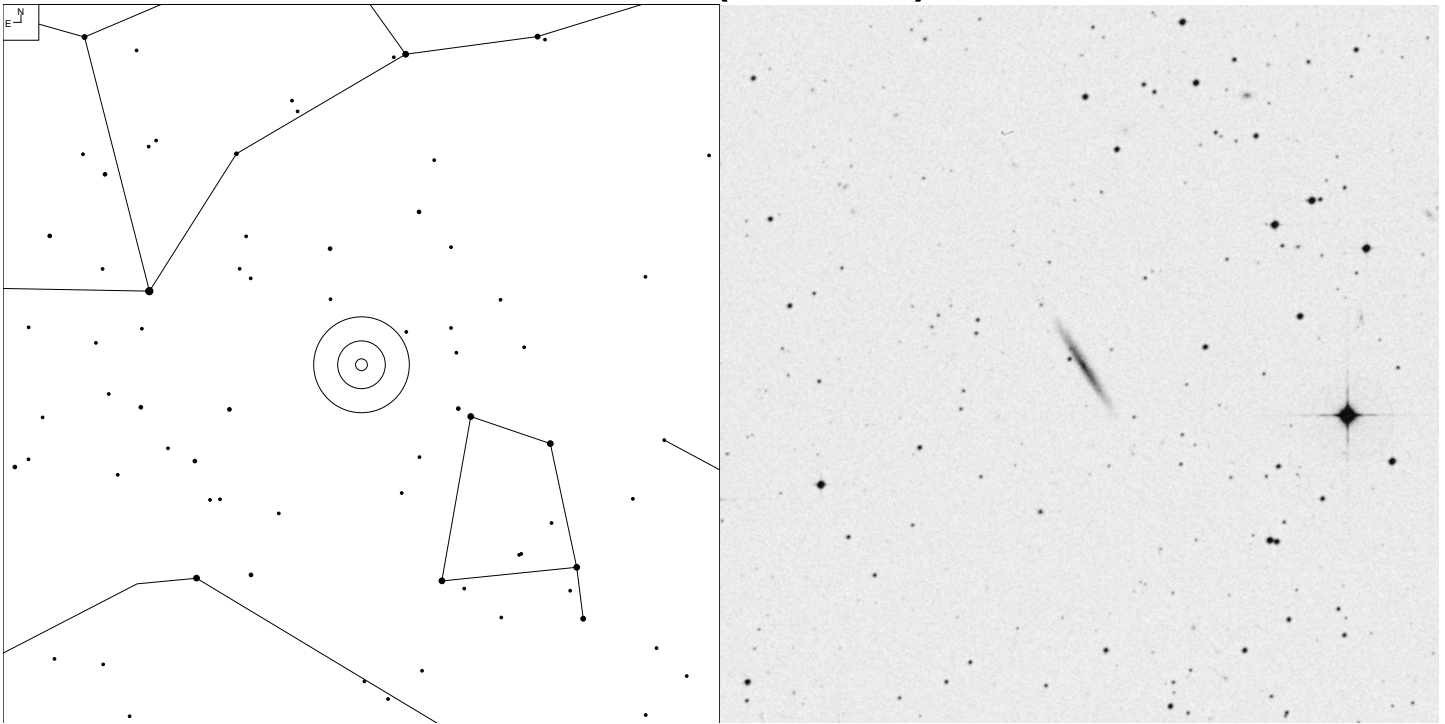
Name	RA	Dec	Mag	Size	Urano
NGC 5496	14h 11m 37.9s	-01°09'28"	12.7p	4.7 x 0.8'	109R

MCG-3-30-3 (Crater)



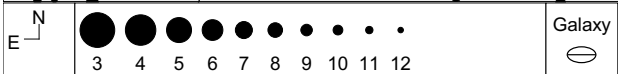
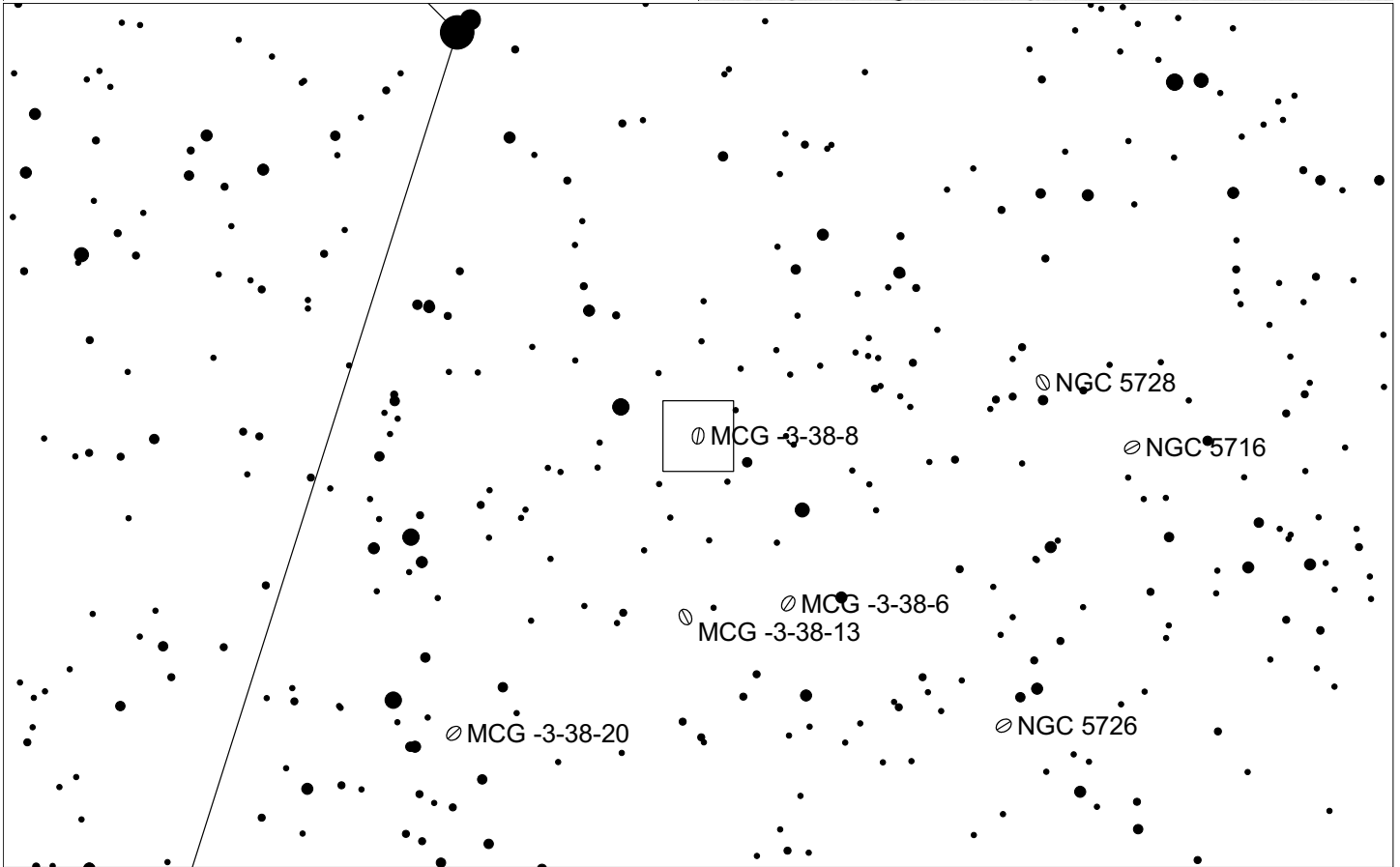
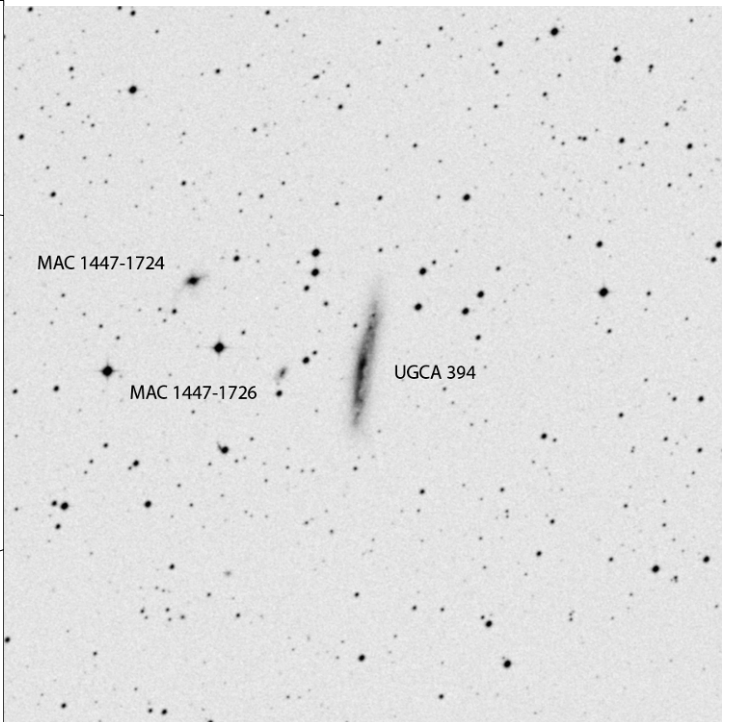
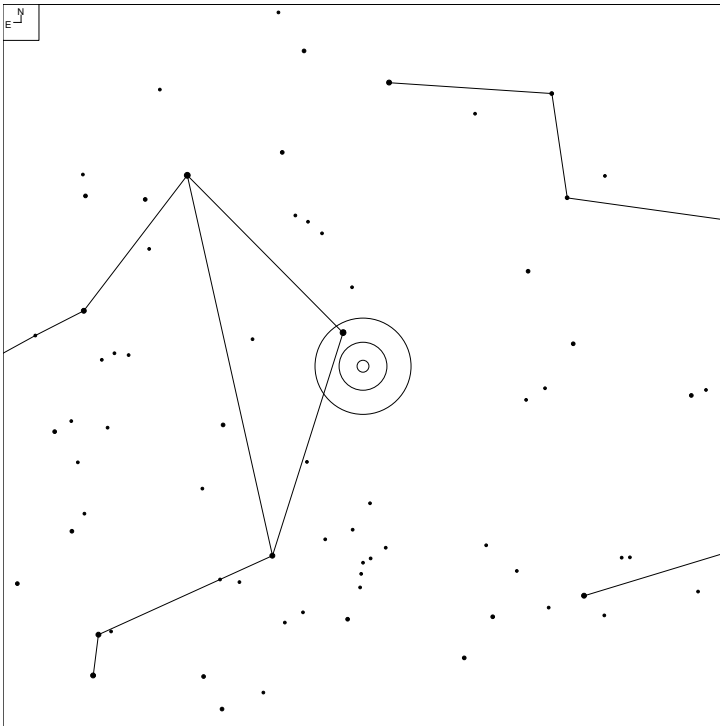
Name	RA	Dec	Mag	Size	Urano
MCG-3-30-3	11h 37m 59.5s	-17°14'01"	15.2	2.1 x 0.3'	132R

IC 3799 (Corvus)



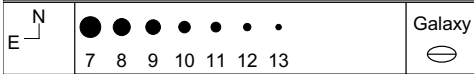
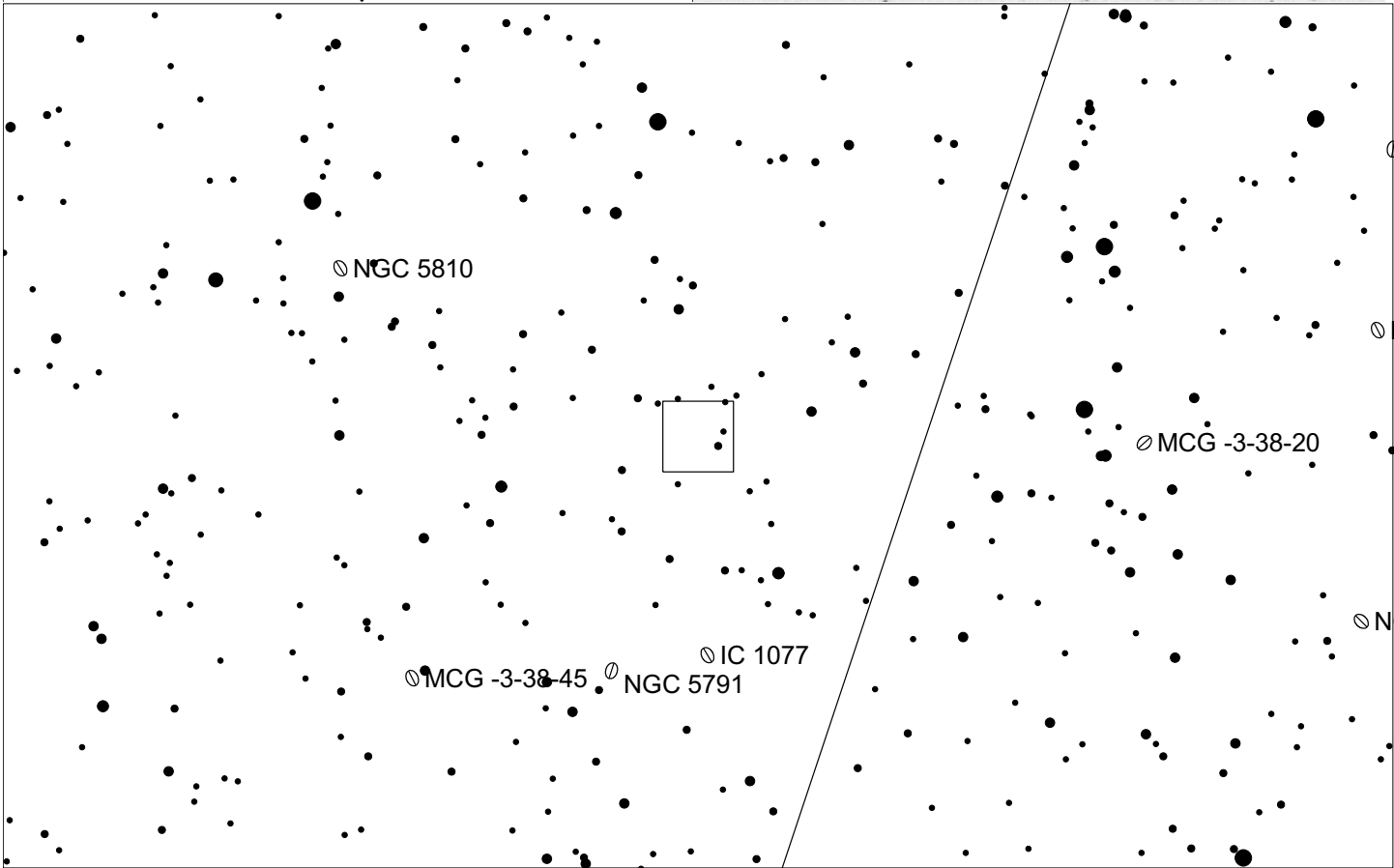
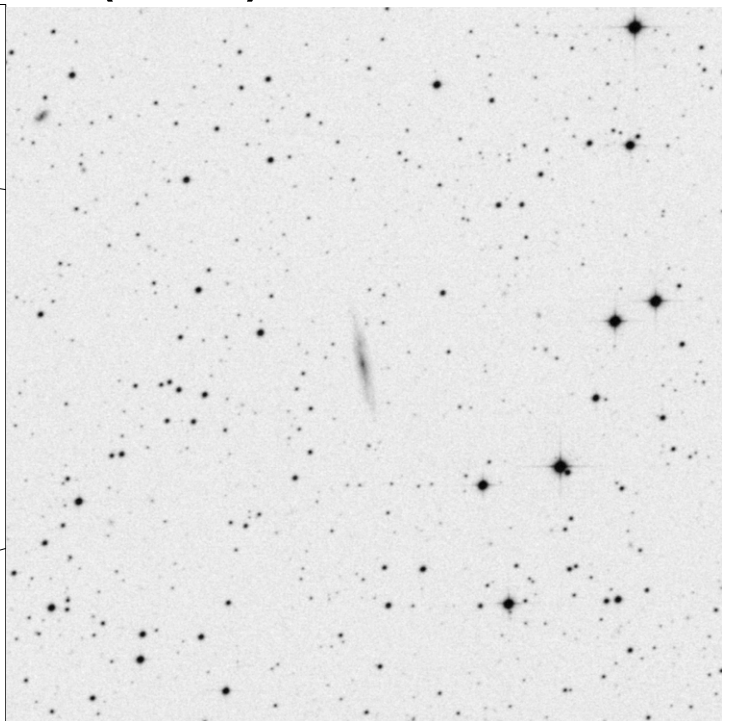
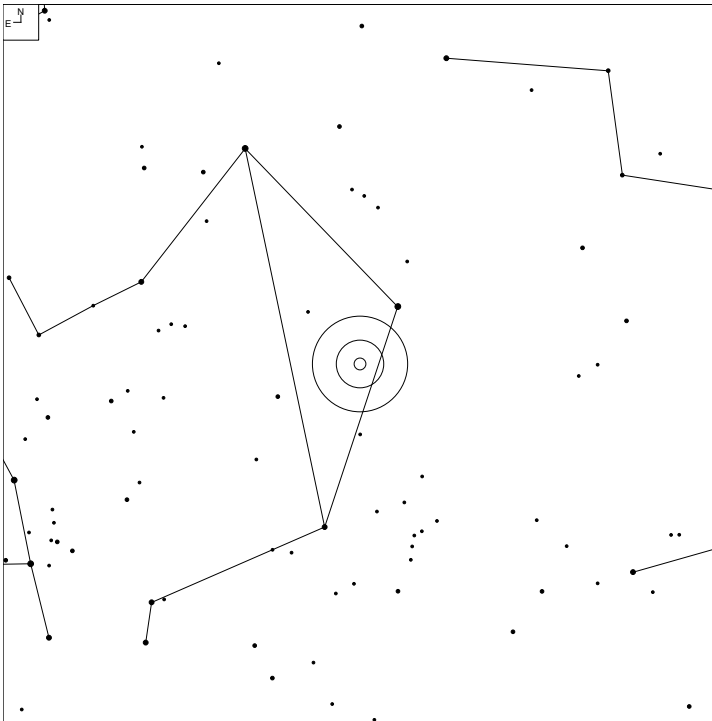
Name	RA	Dec	Mag	Size	Urano
IC 3799	12h 48m 59.7s	-14°23'57"	14.3	2.6 x 0.3'	131R

MCG-3-38-8 (Libra)



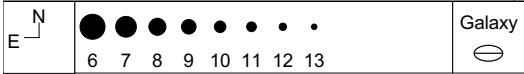
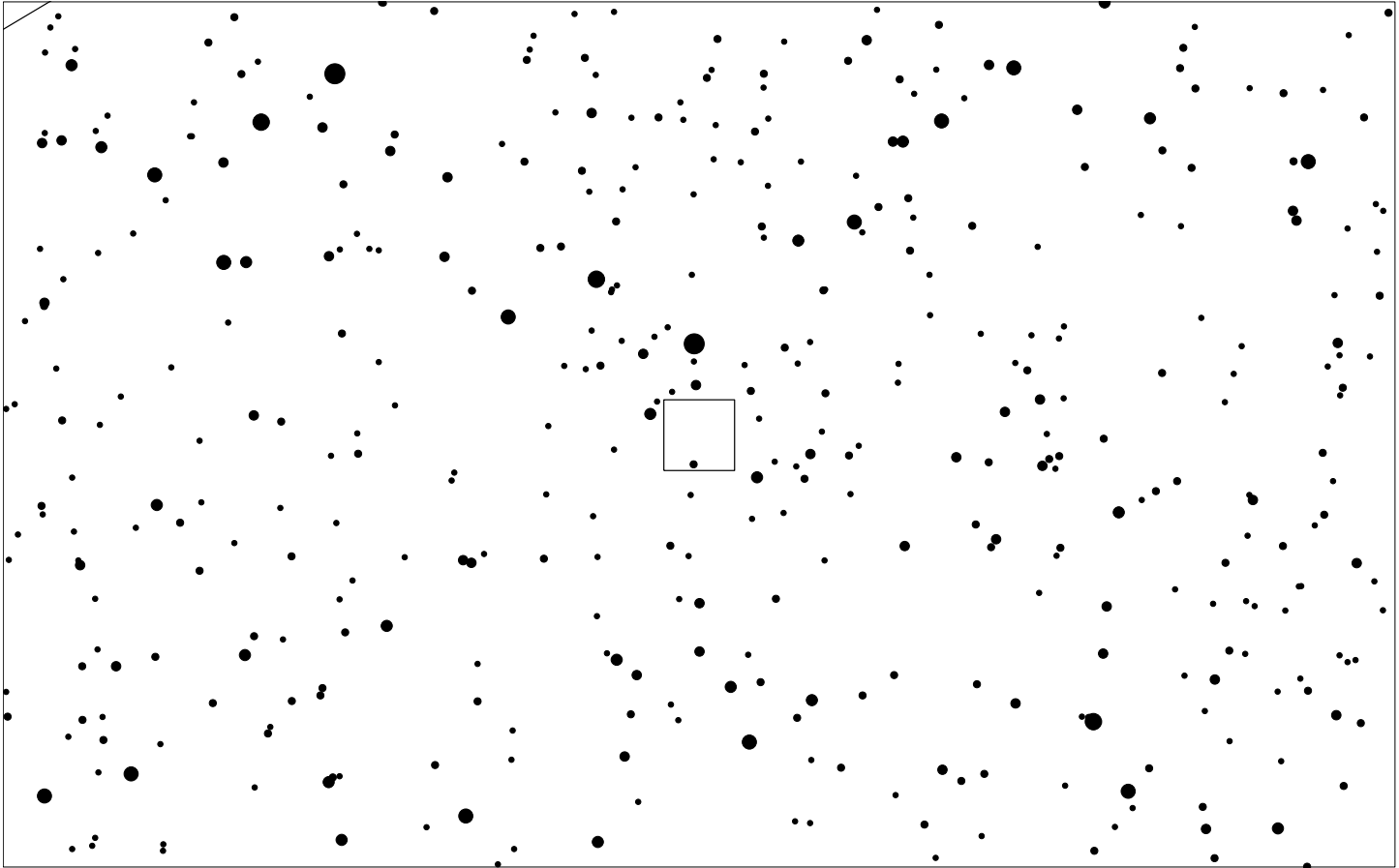
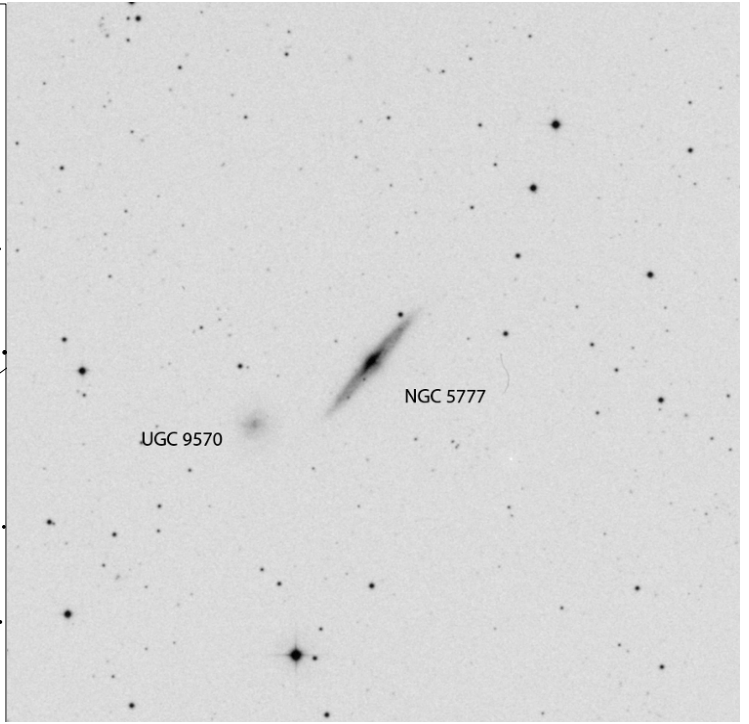
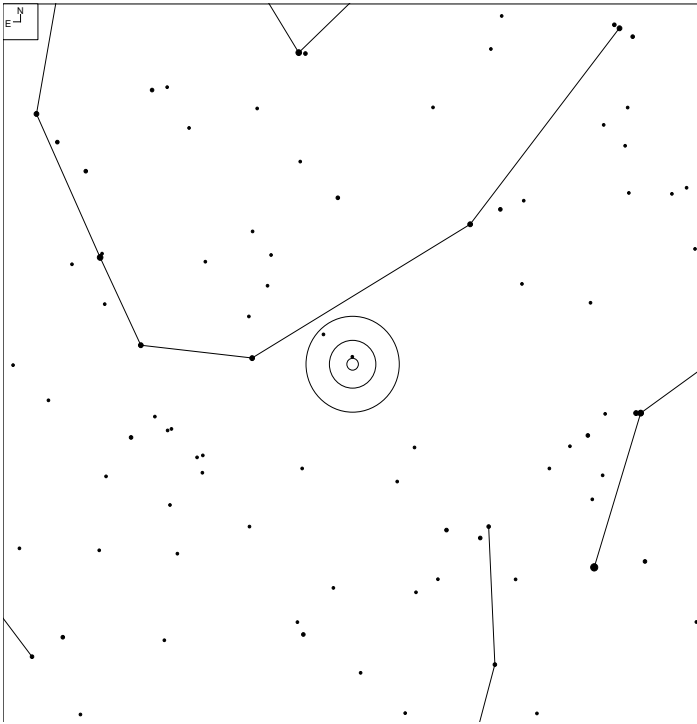
Name	RA	Dec	Mag	Size	Urano
MCG-3-38-8	14h 47m 24.0s	-17°26'32"	13.5	3.1 x 0.5'	130L

MCG-3-38-31 (Libra)



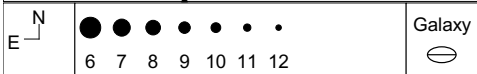
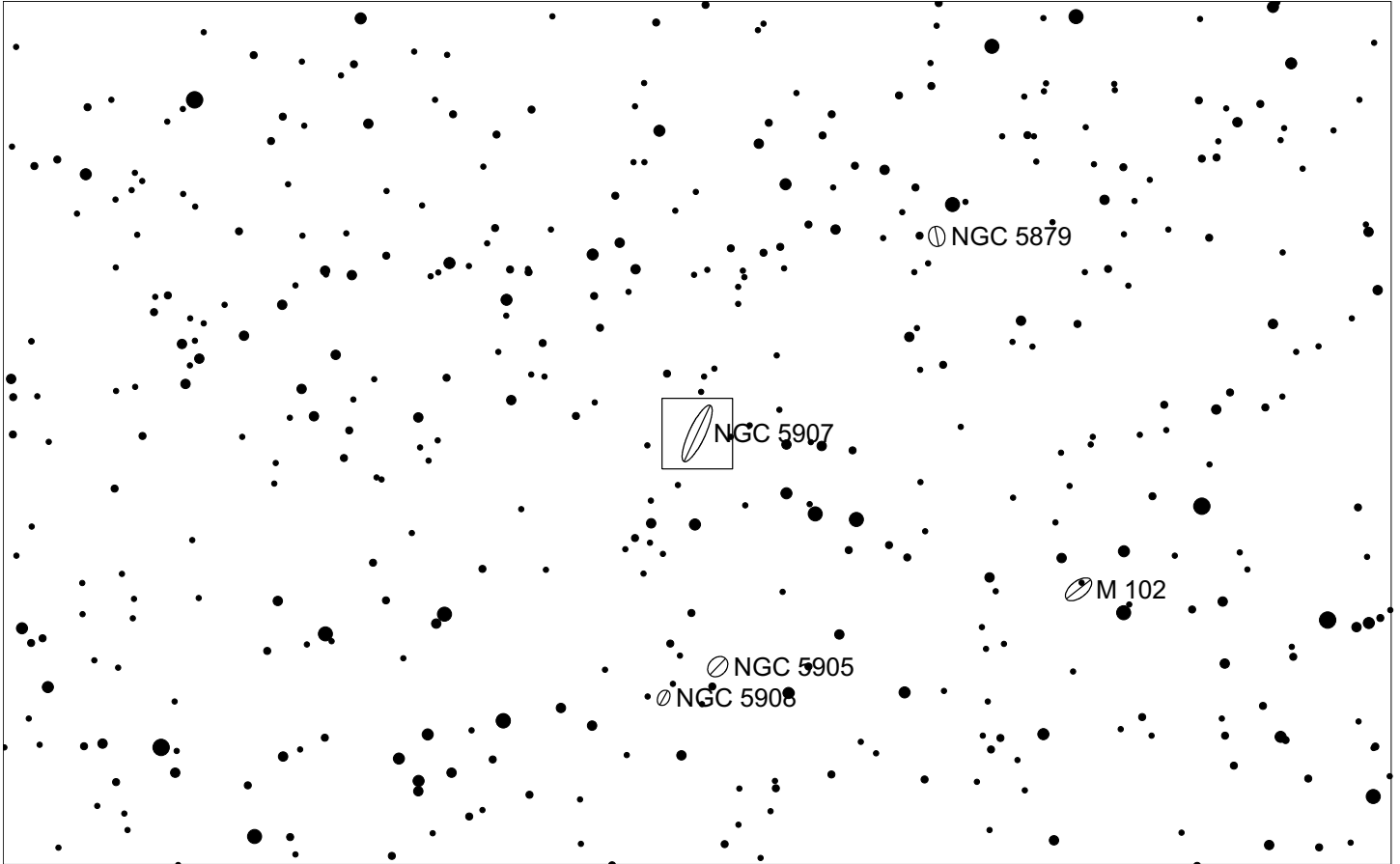
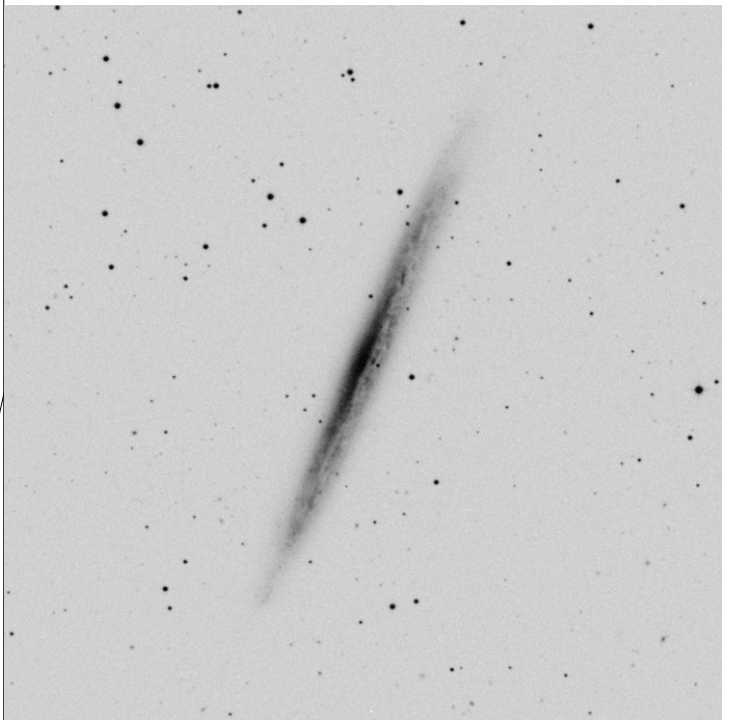
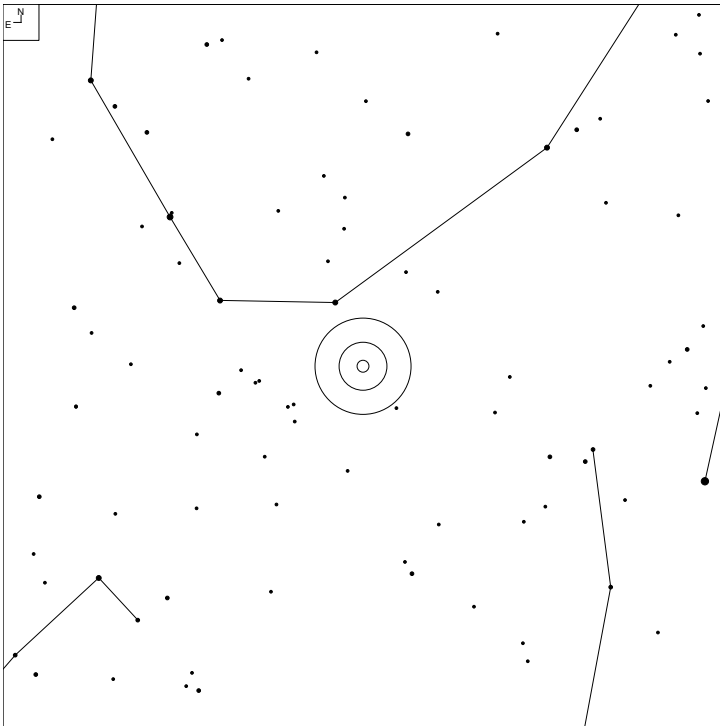
Name	RA	Dec	Mag	Size	Urano
MCG-3-38-31	14h 57m 29.8s	-18°27'13"	15.2p	2.1 x 0.3'	148L

NGC 5777 (Draco)



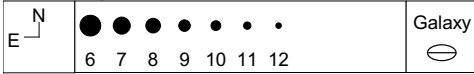
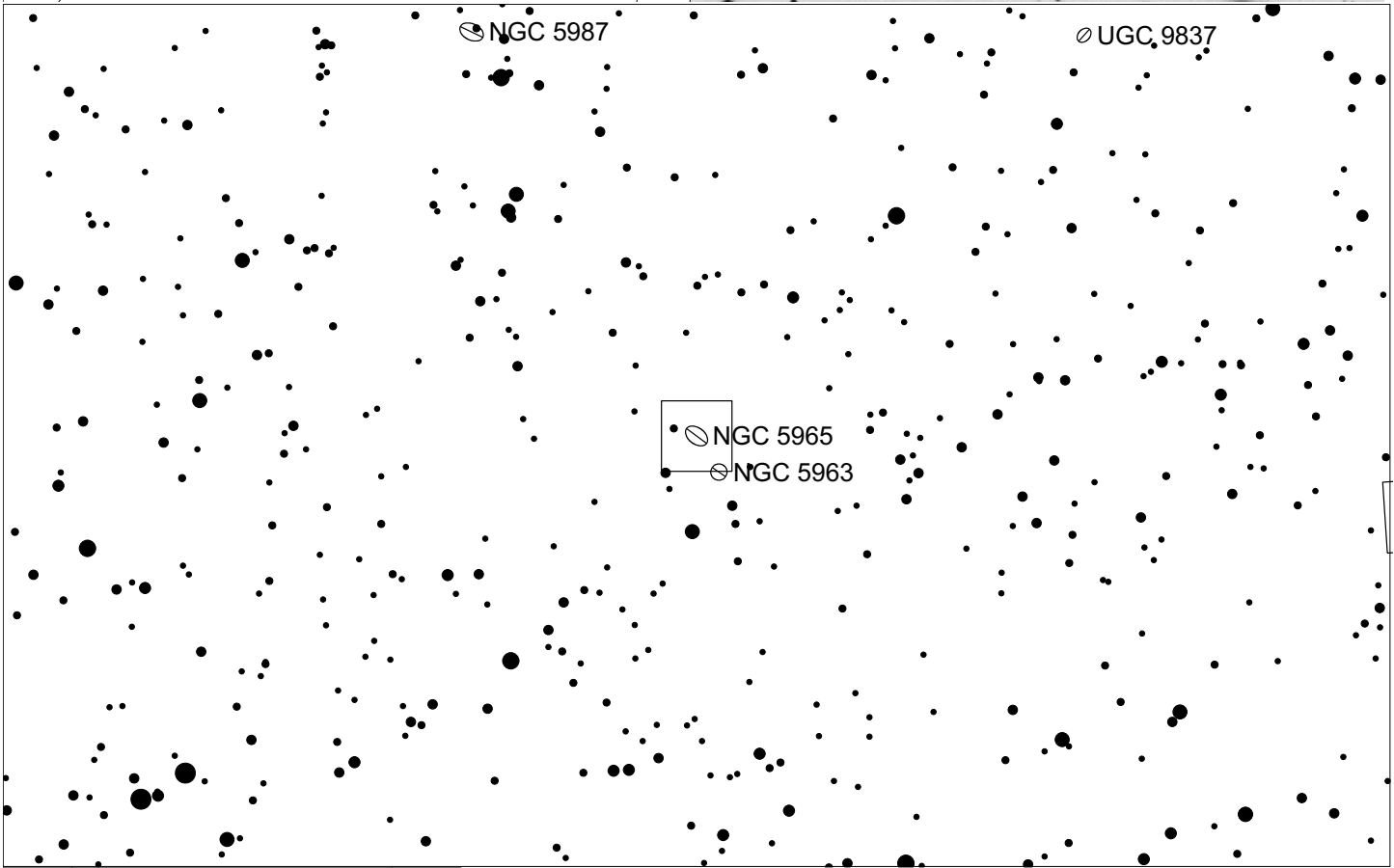
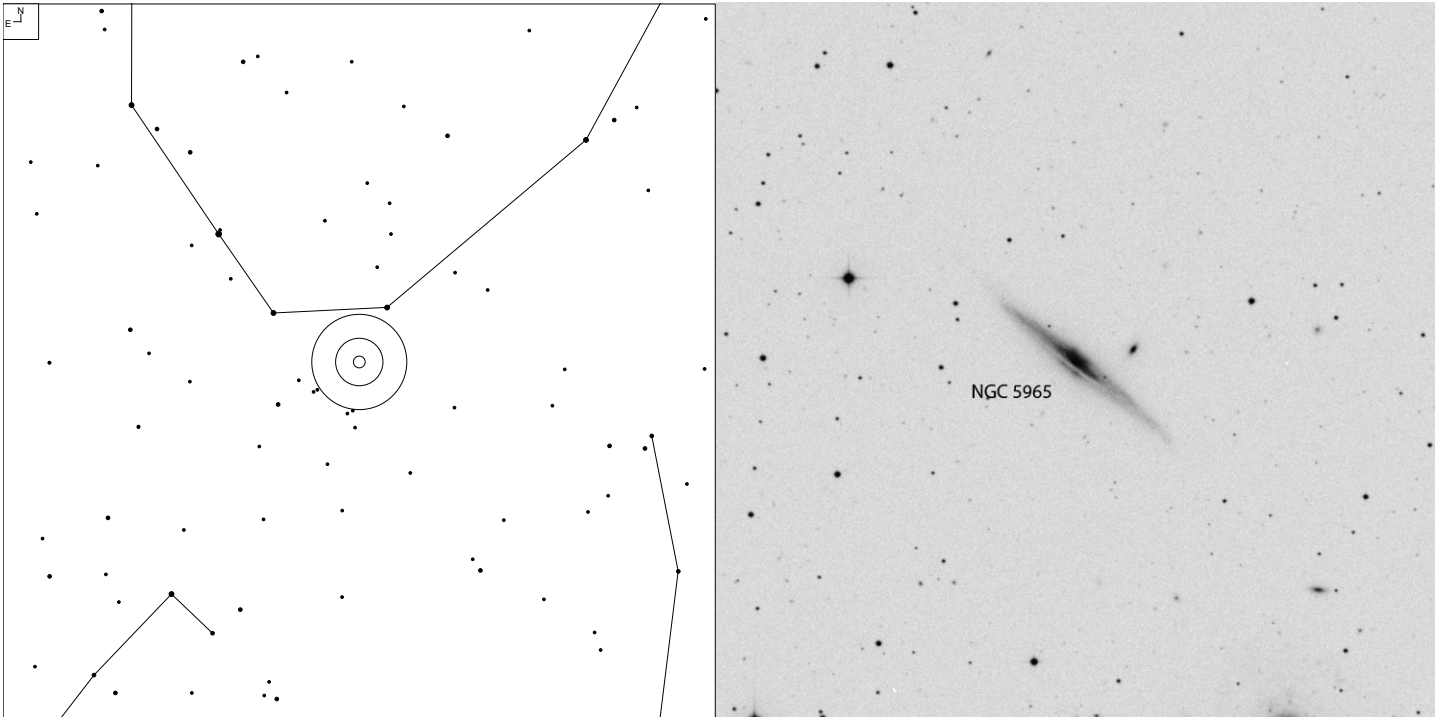
Name	RA	Dec	Mag	Size	Urano
NGC 5777	14h 51m 19.2s	+58°58'41"	14.1p	3.1 x 0.4'	23L

NGC 5907 (Draco)



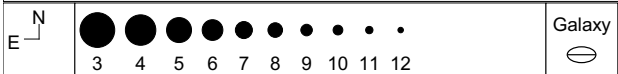
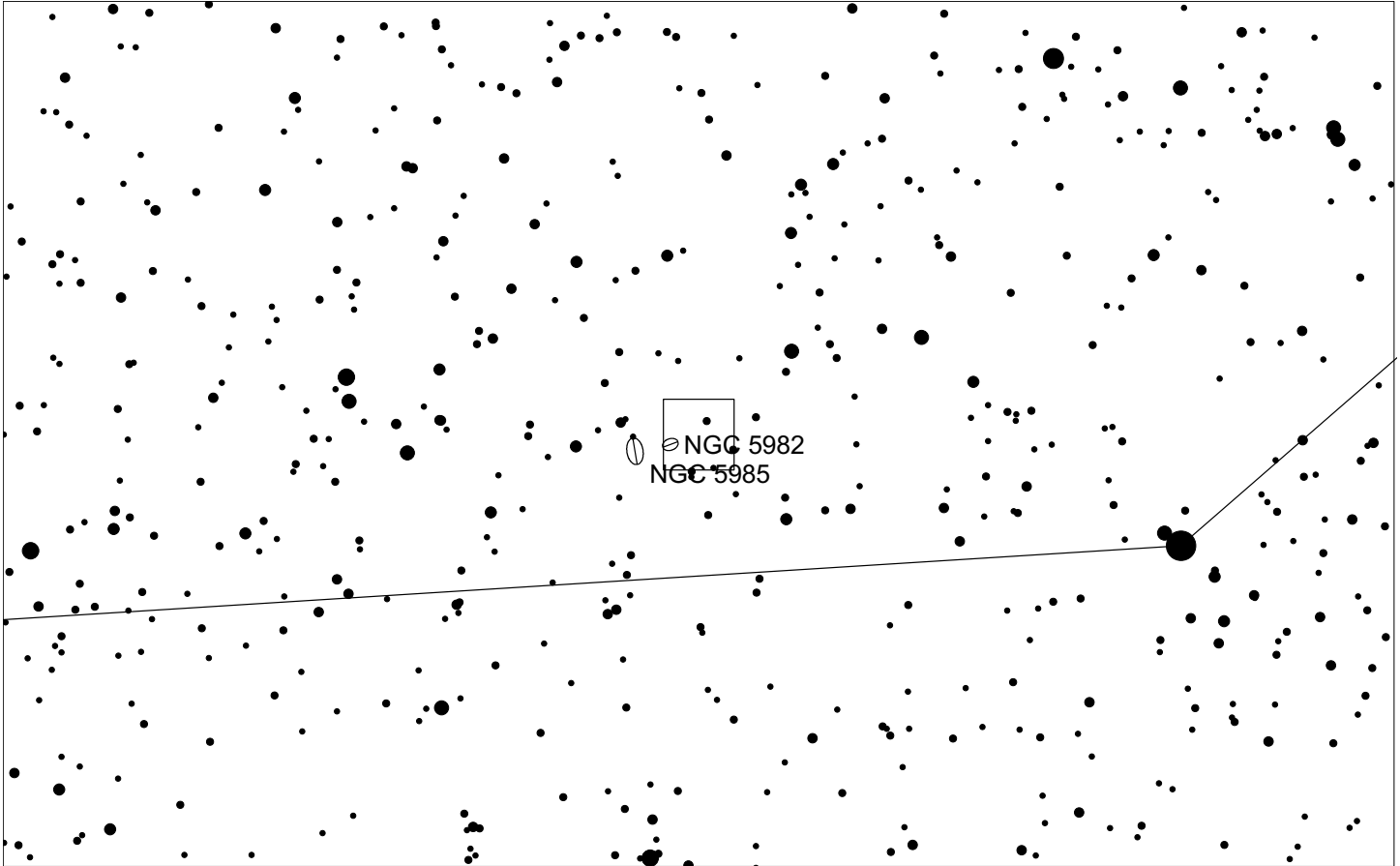
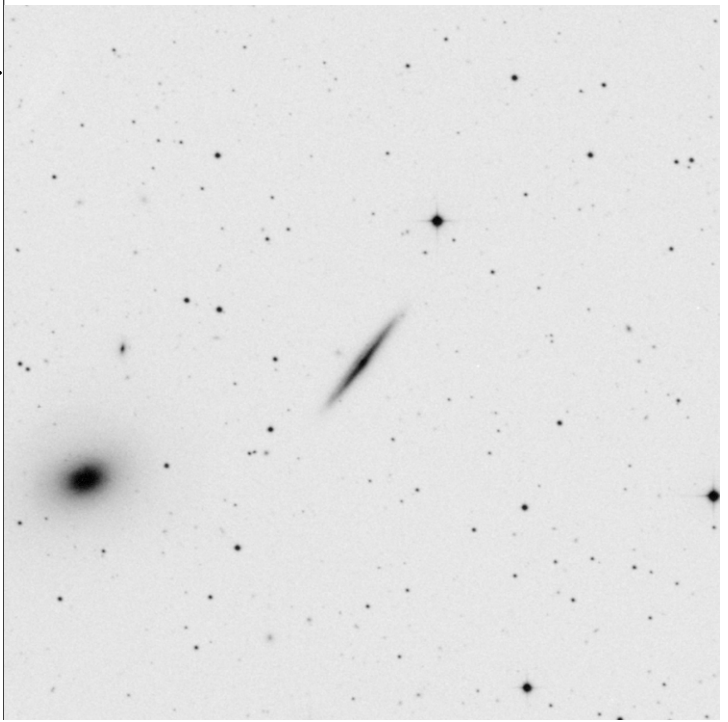
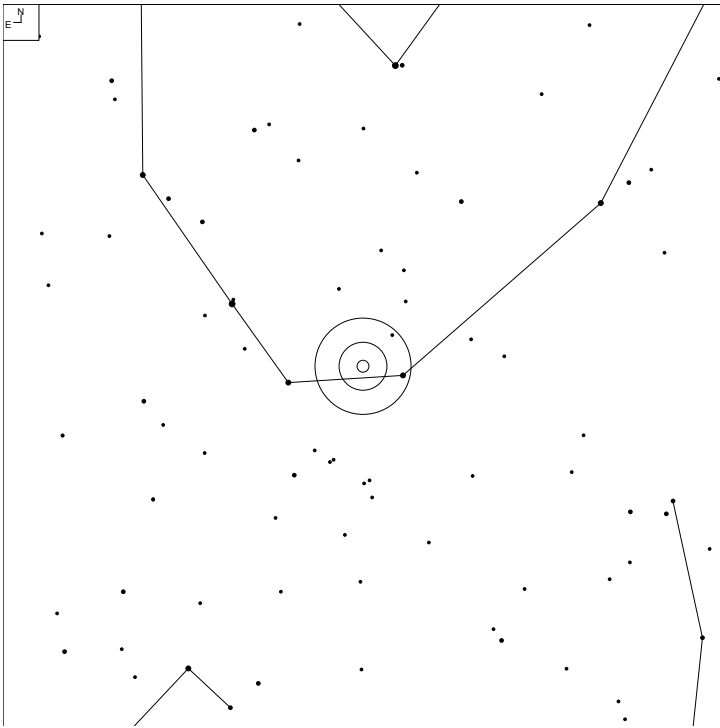
Name	RA	Dec	Mag	Size	Urano
NGC 5907	15h 15m 53.9s	+56°19'38"	11.1b	12.9 x 1.3'	22R

NGC 5965 (Draco)



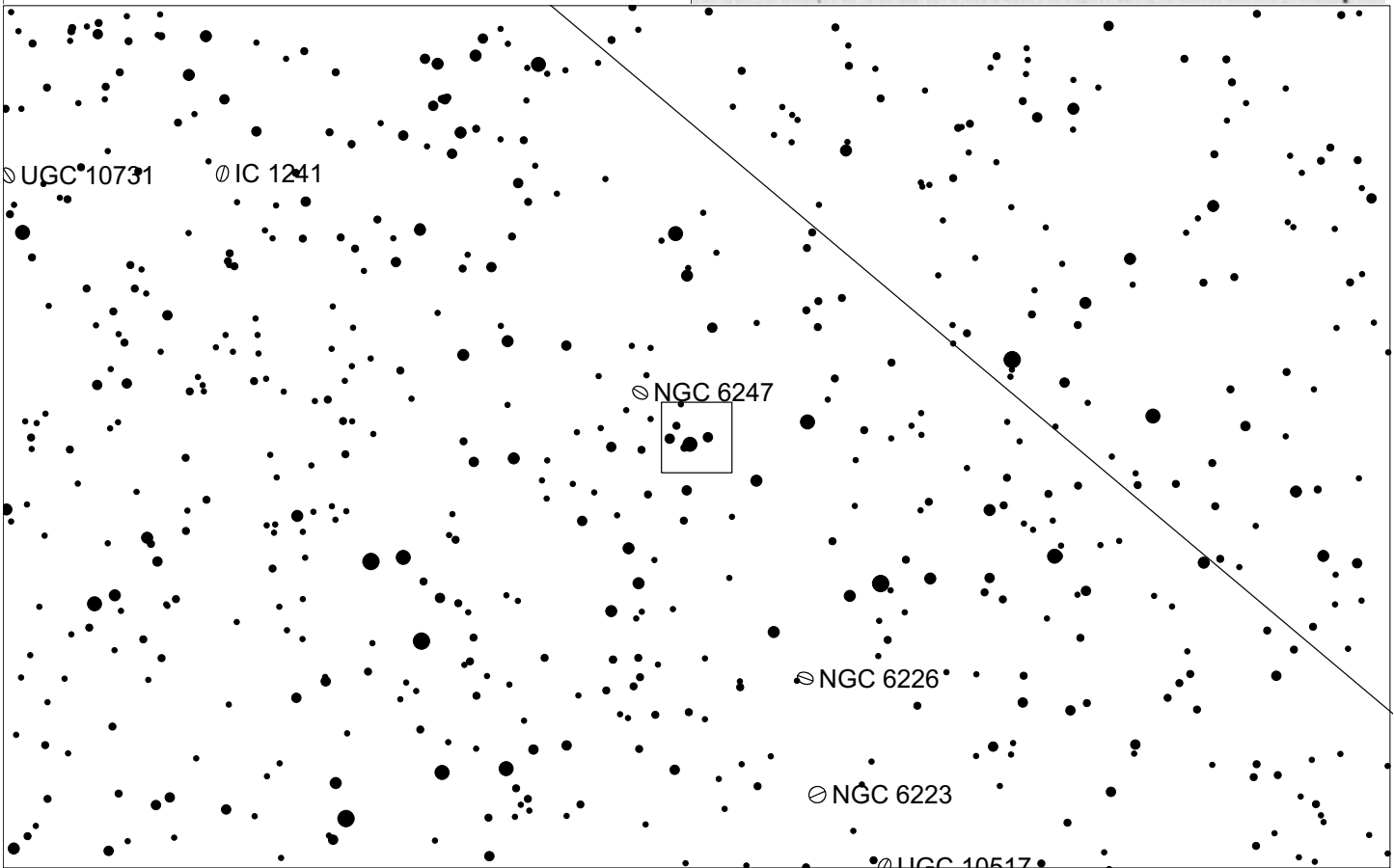
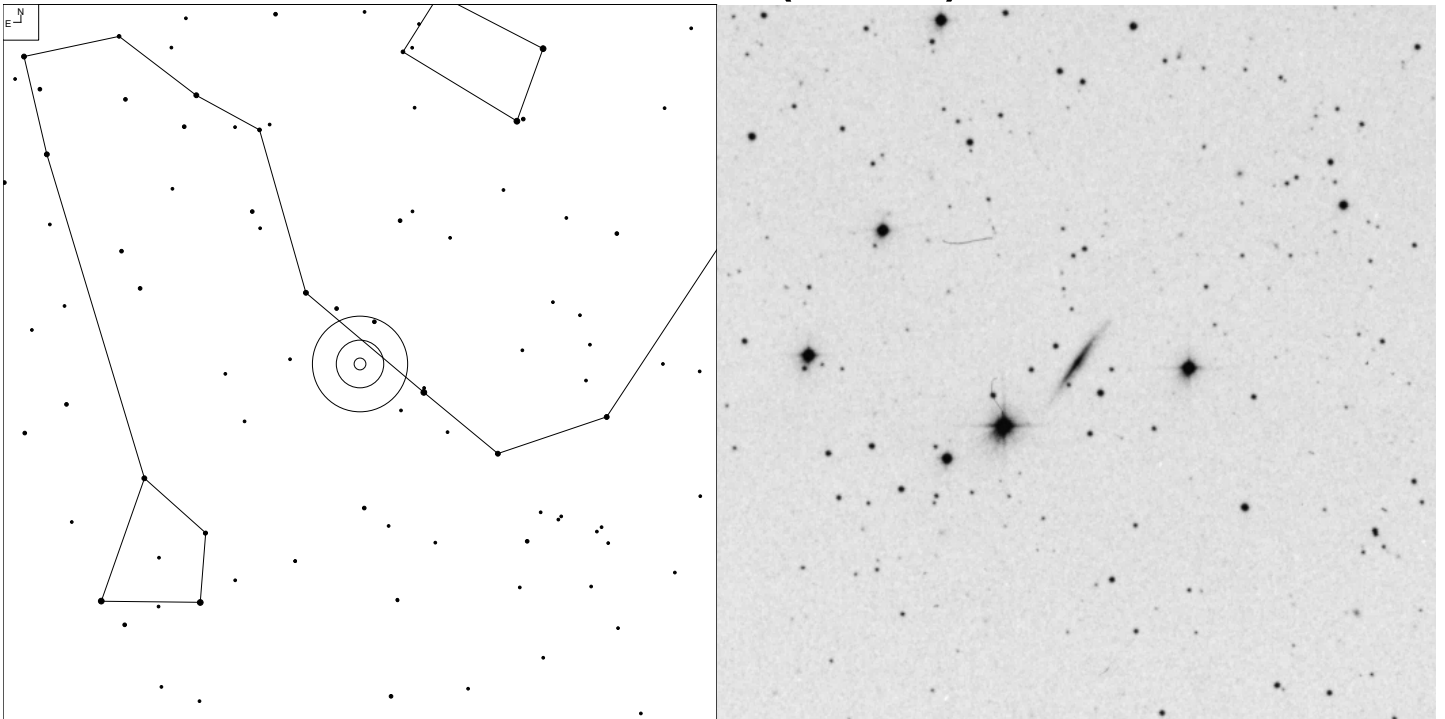
Name	RA	Dec	Mag	Size	Urano
NGC 5965	15h 34m 02.4s	+56°41'13"	12.6b	5.2 x 0.7'	22R

NGC 5981 (Draco)



Name	RA	Dec	Mag	Size	Urano
NGC 5981	15h 37m 53.3s	+59°23'29"	13.9b	3.1 x 0.6'	22R

UGC 10561 (Draco)

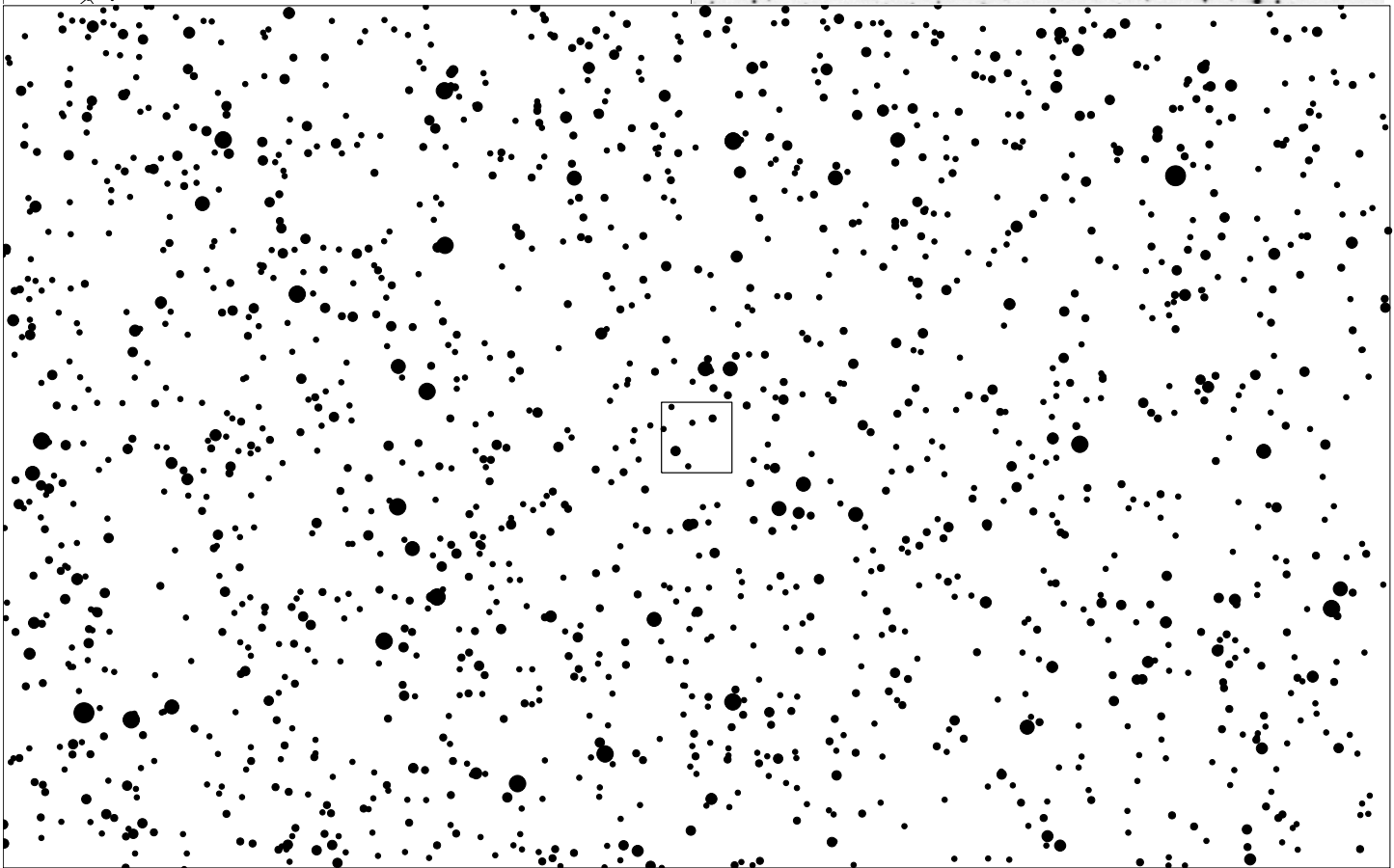
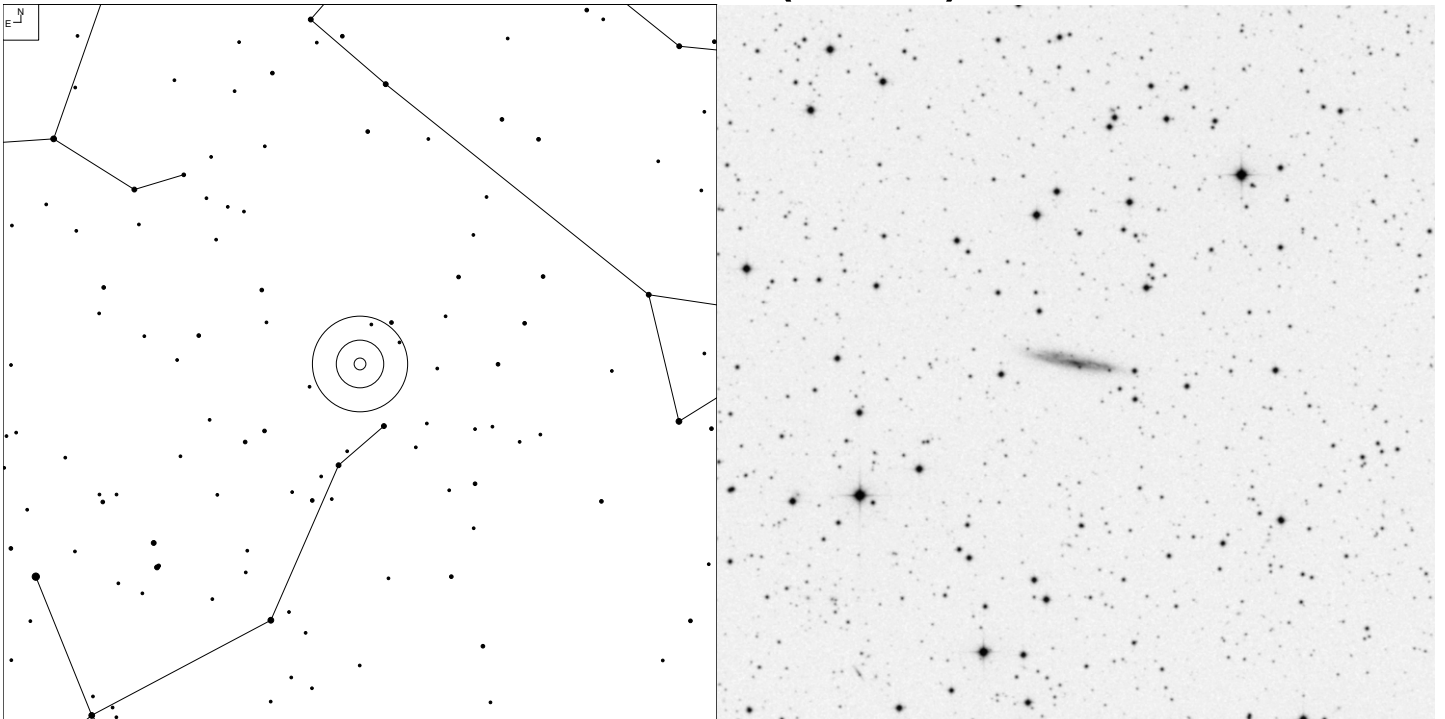


6 7 8 9 10 11 12

Galaxy

Name	RA	Dec	Mag	Size	Urano
UGC 10561	16h 46m 36.5s	+62°49'22"	15.1p	2.4 x 0.2'	11R

UGC 11435 (Draco)

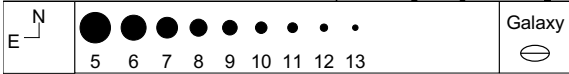
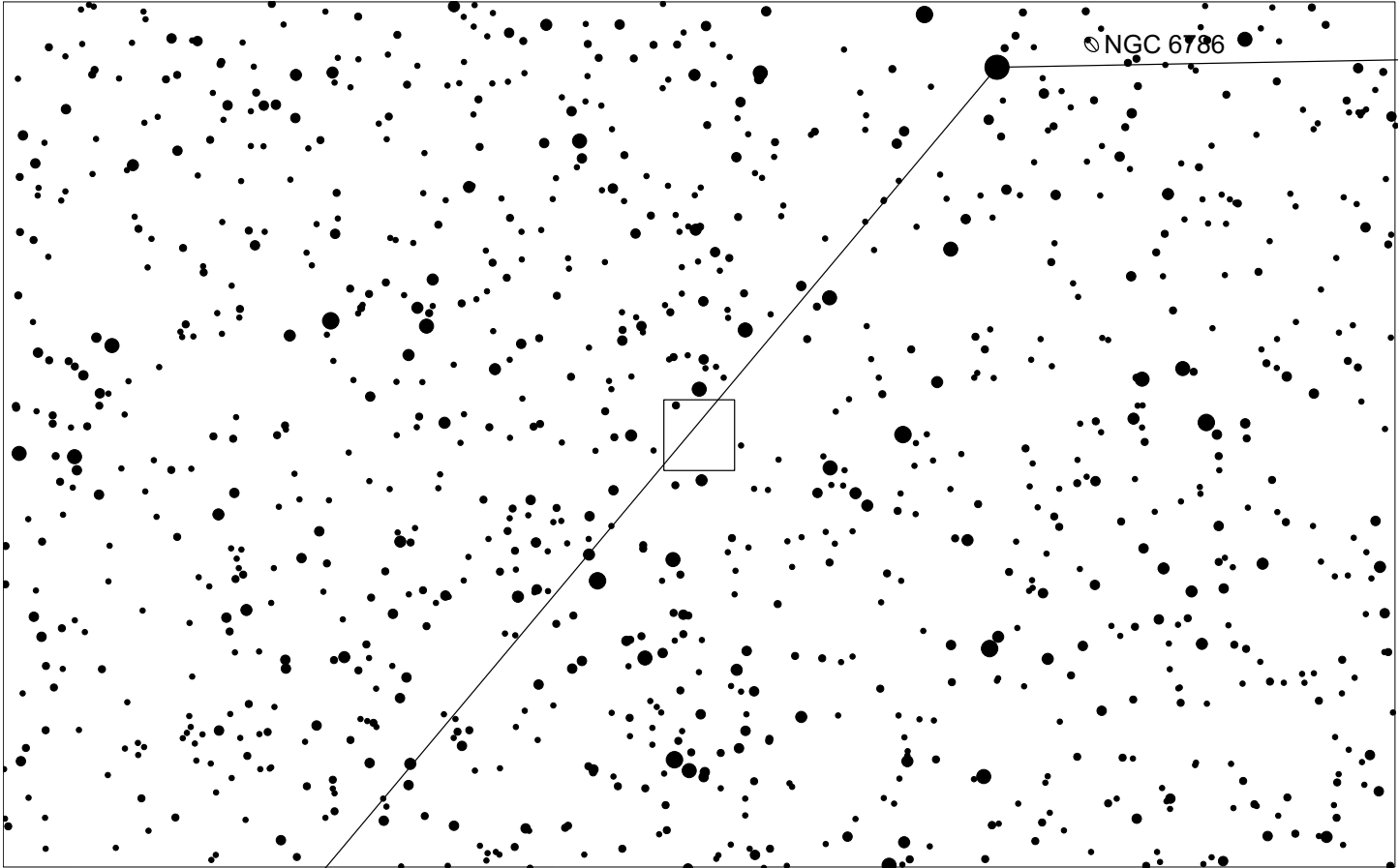
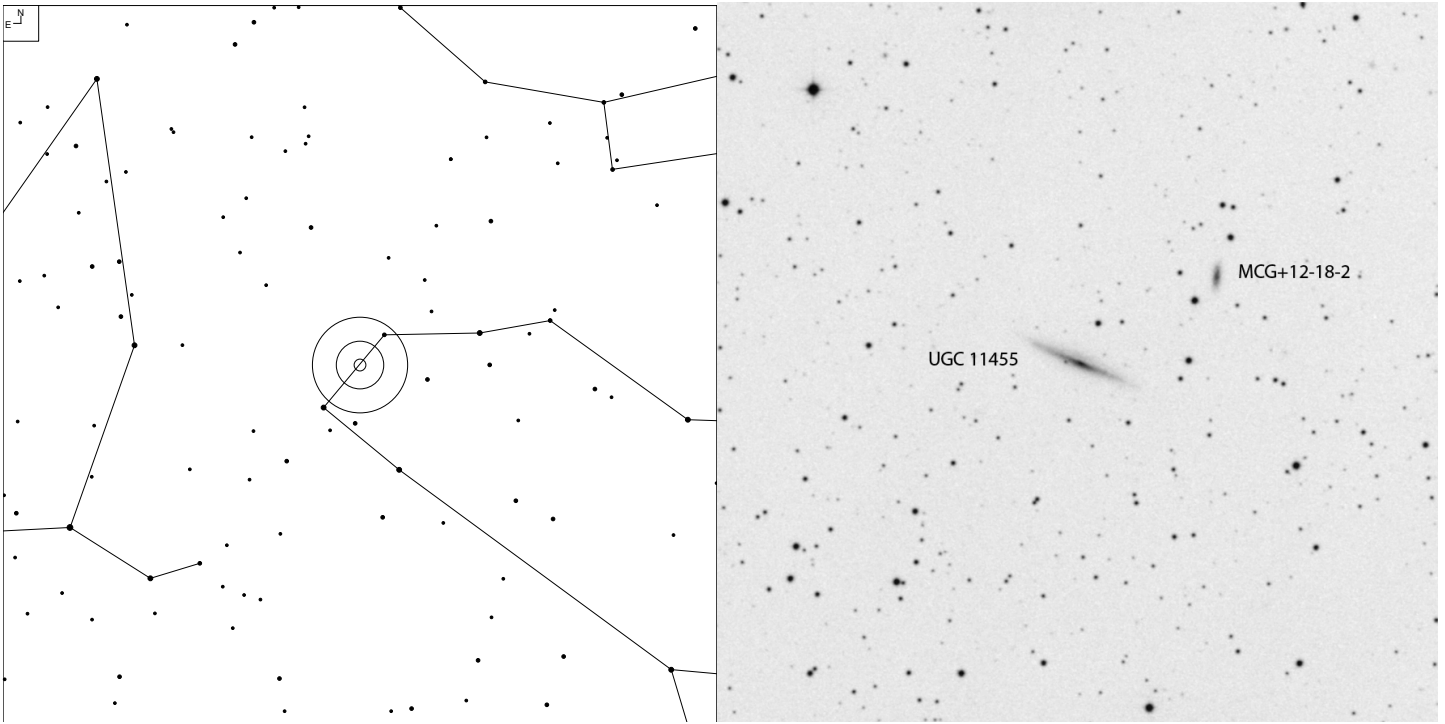


5 6 7 8 9 10 11 12

Galaxy

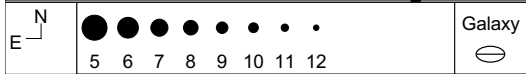
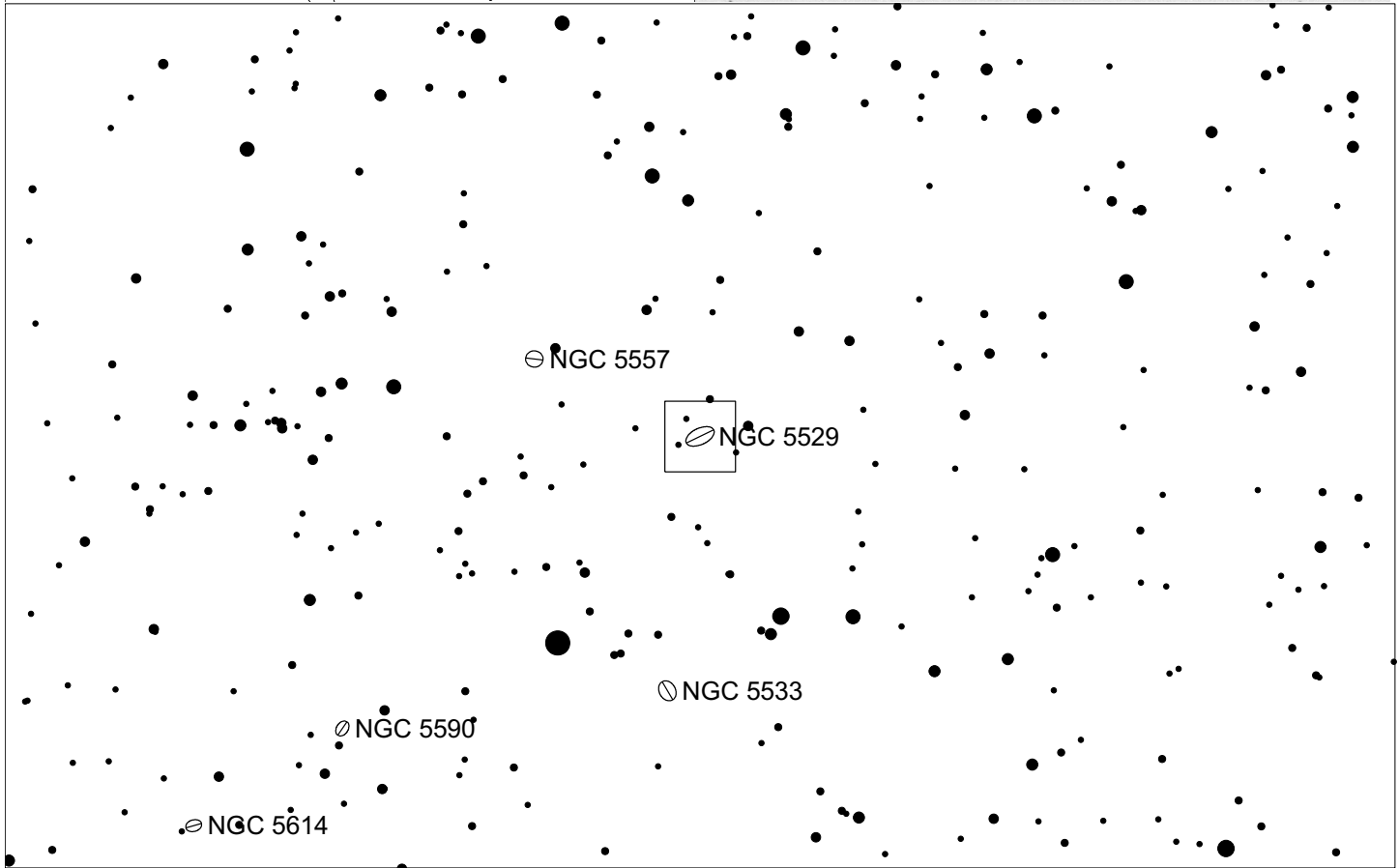
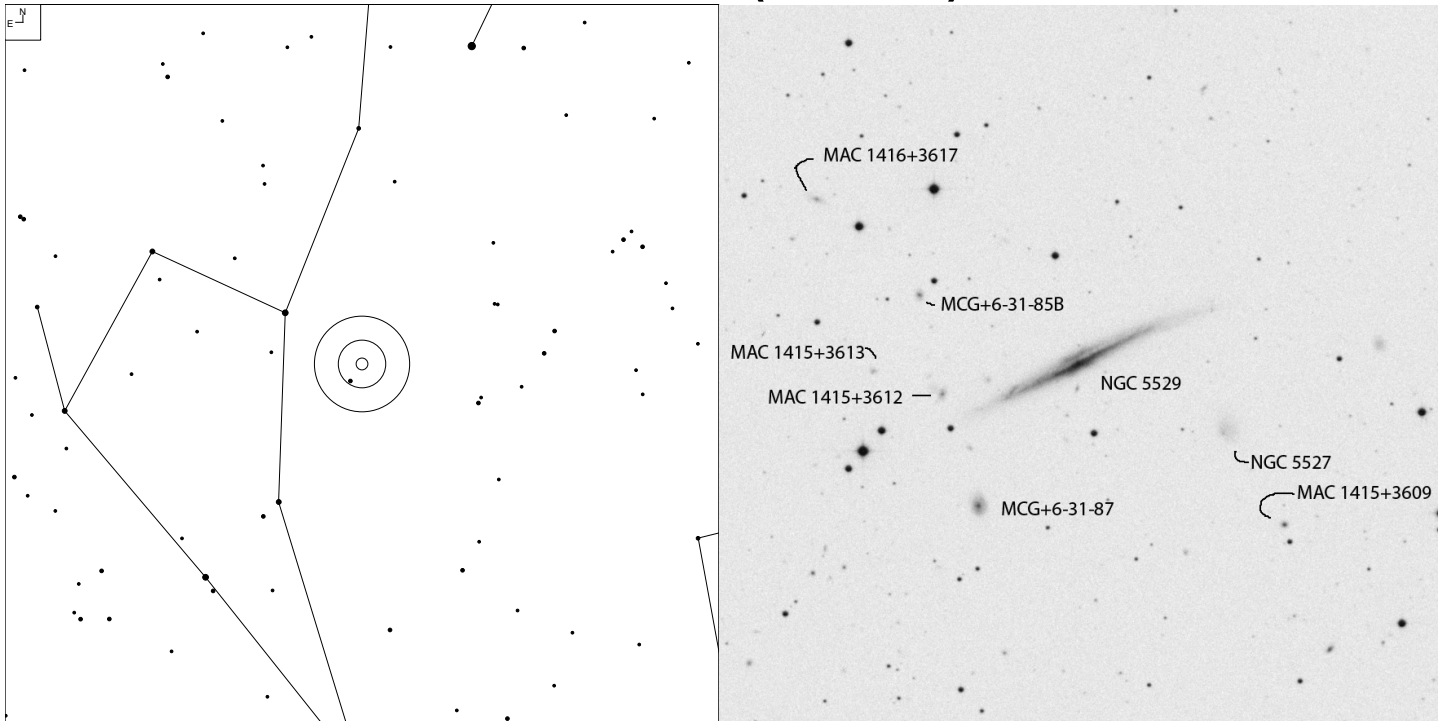
Name	RA	Dec	Mag	Size	Urano
UGC 11435	19h 23m 51.6s	+55°59'15"	14.9p	2.0 x 0.3'	20R

UGC 11455 (Draco)



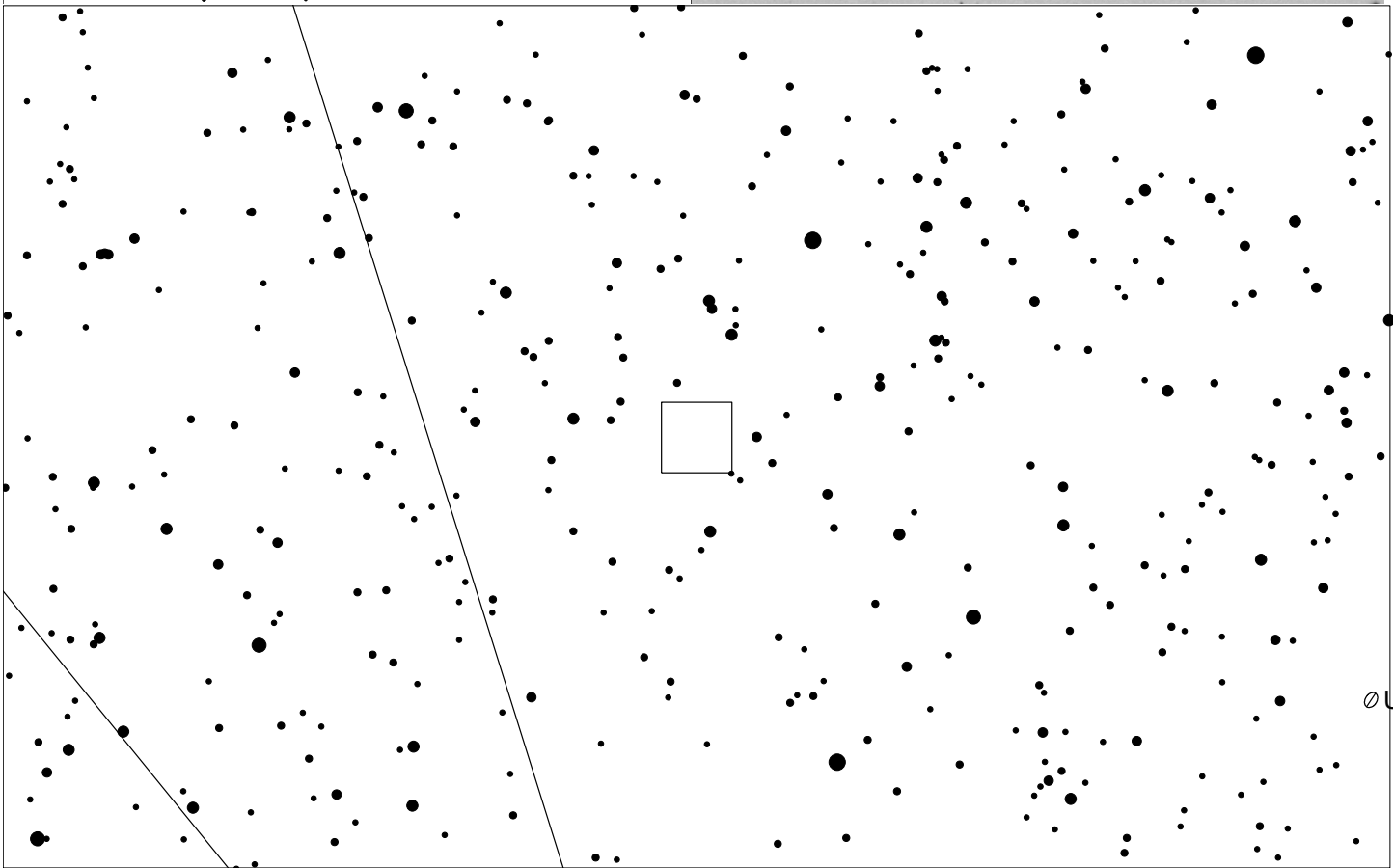
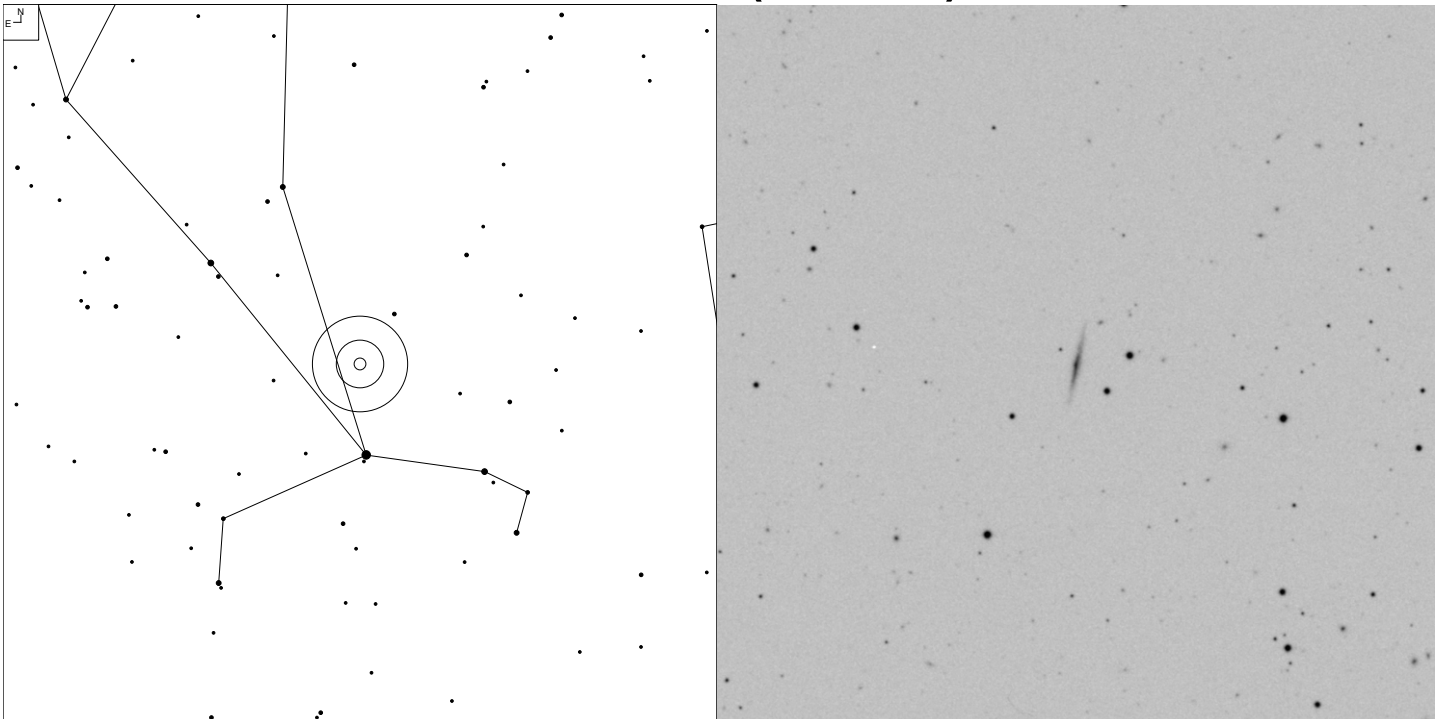
Name	RA	Dec	Mag	Size	Urano
UGC 11455	19h 29m 57.6s	+72°06'47"	15.0p	2.6 x 0.3'	10L

NGC 5529 (Boötes)



Name	RA	Dec	Mag	Size	Urano
NGC 5529	14h 15m 34.3s	+36°13'36"	12.8b	6.2 x 0.8'	52R

UGC 9138 (Boötes)

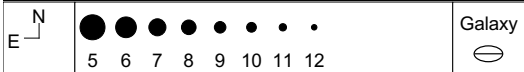
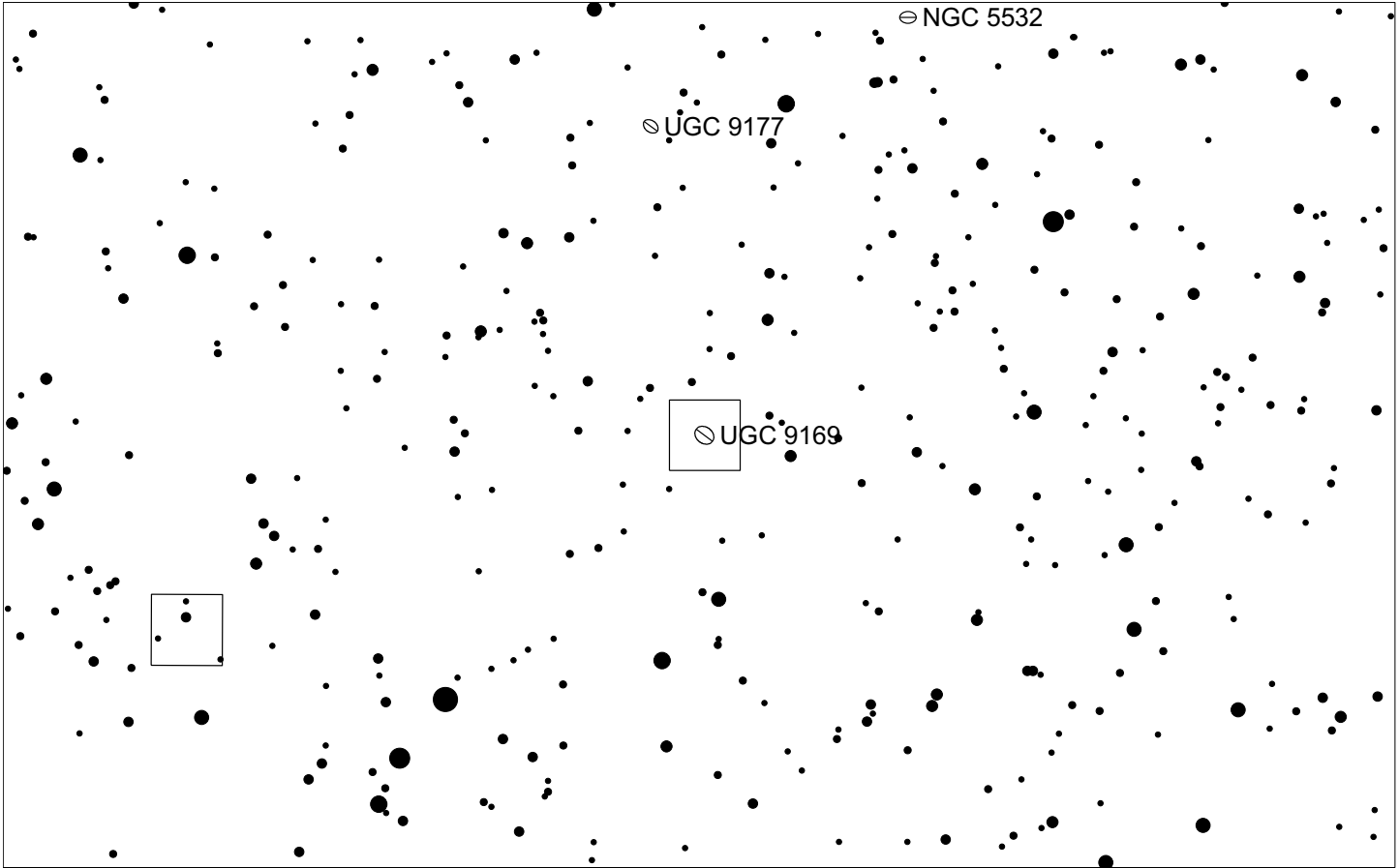
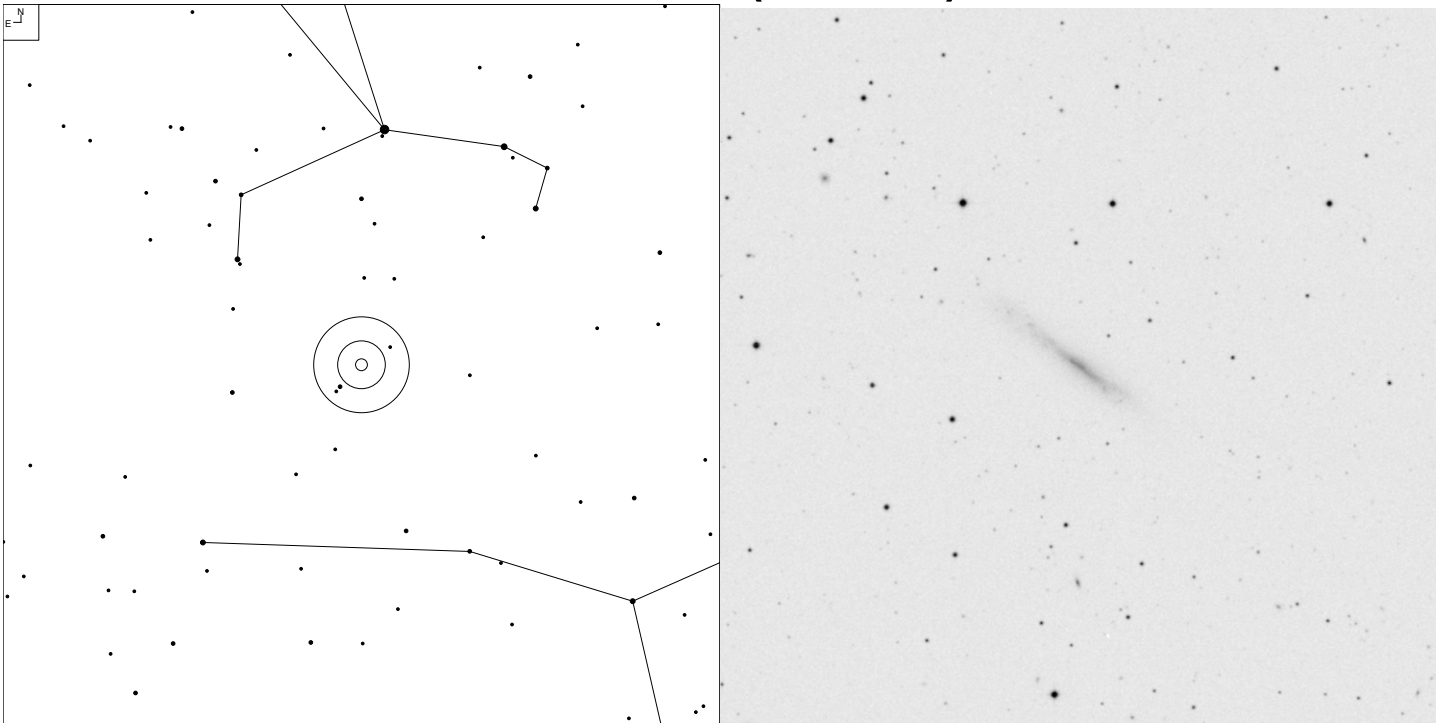


6 7 8 9 10 11 12

Galaxy

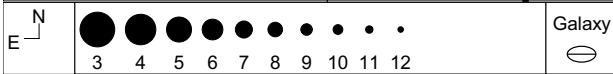
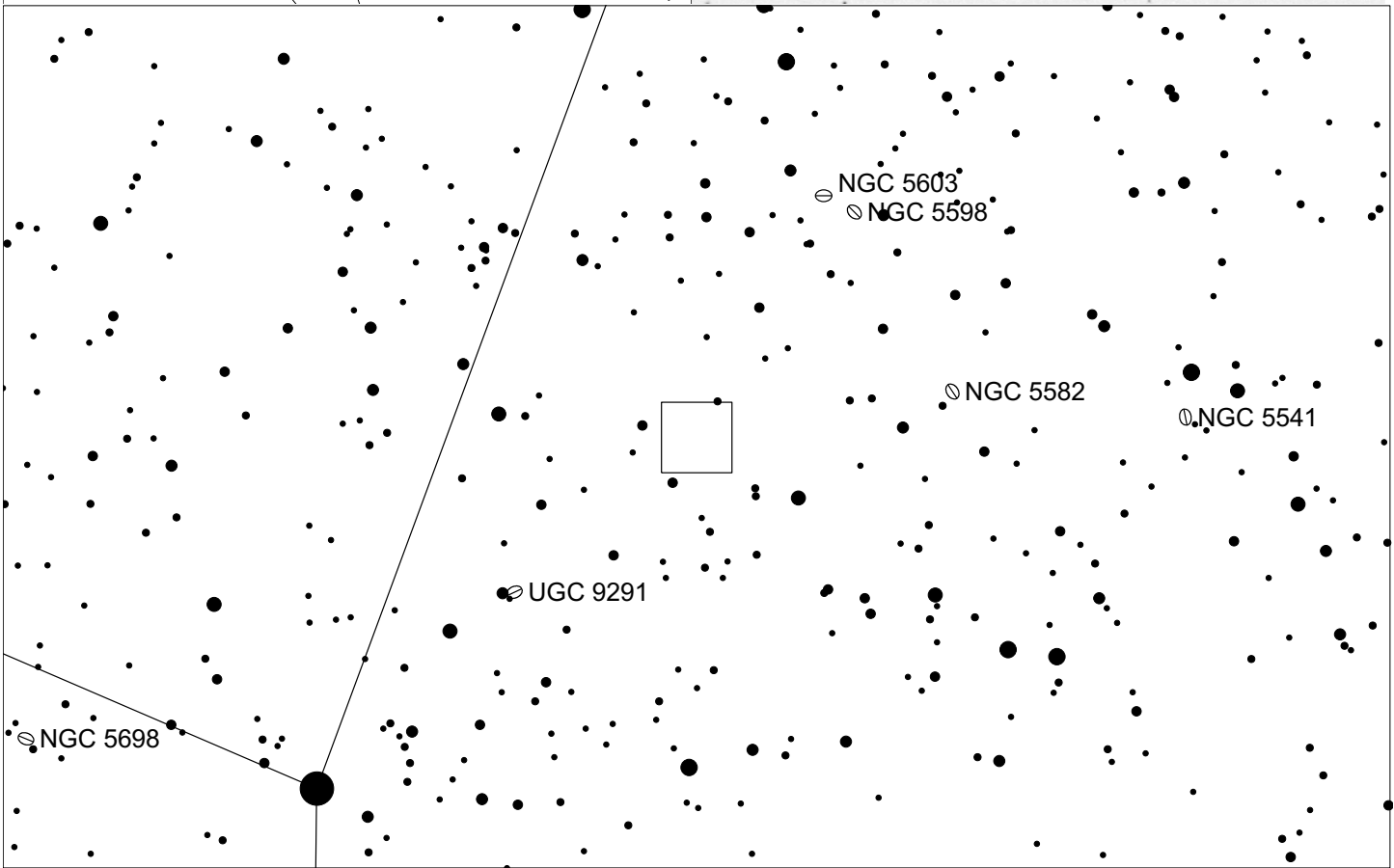
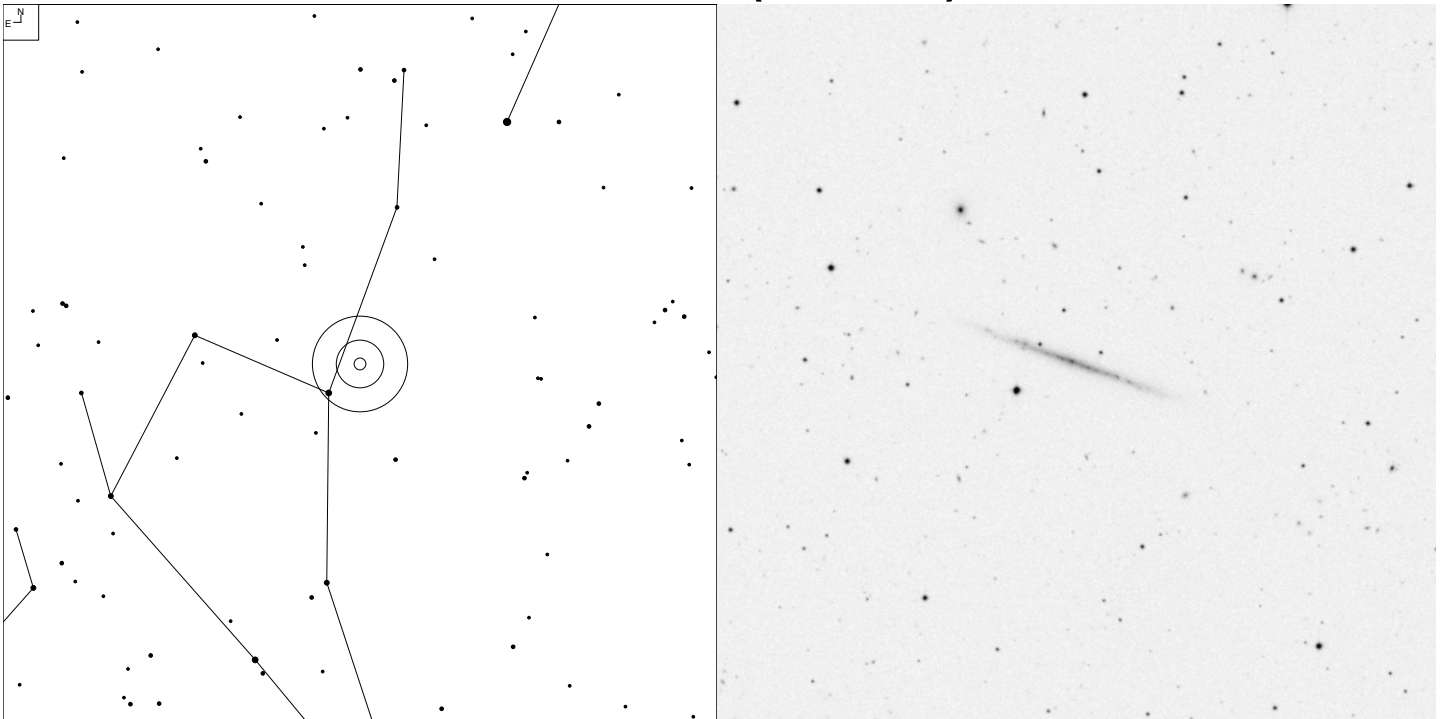
Name	RA	Dec	Mag	Size	Urano
UGC 9138	14h 16m 47.0s	+23°00'10"	15.2p	1.9 x 0.2'	70R

UGC 9169 (Boötes)



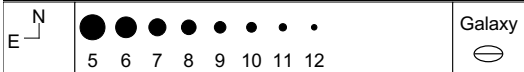
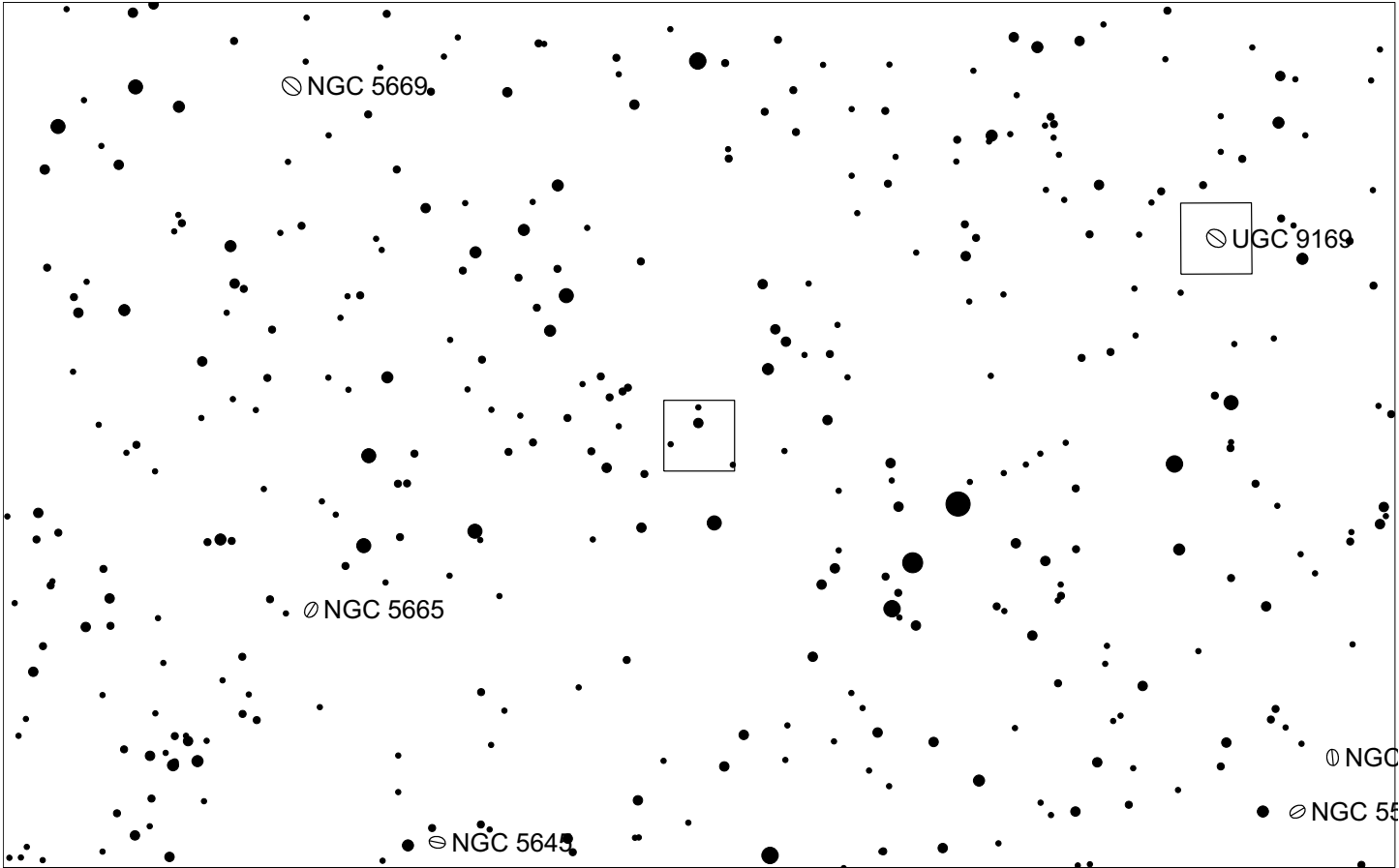
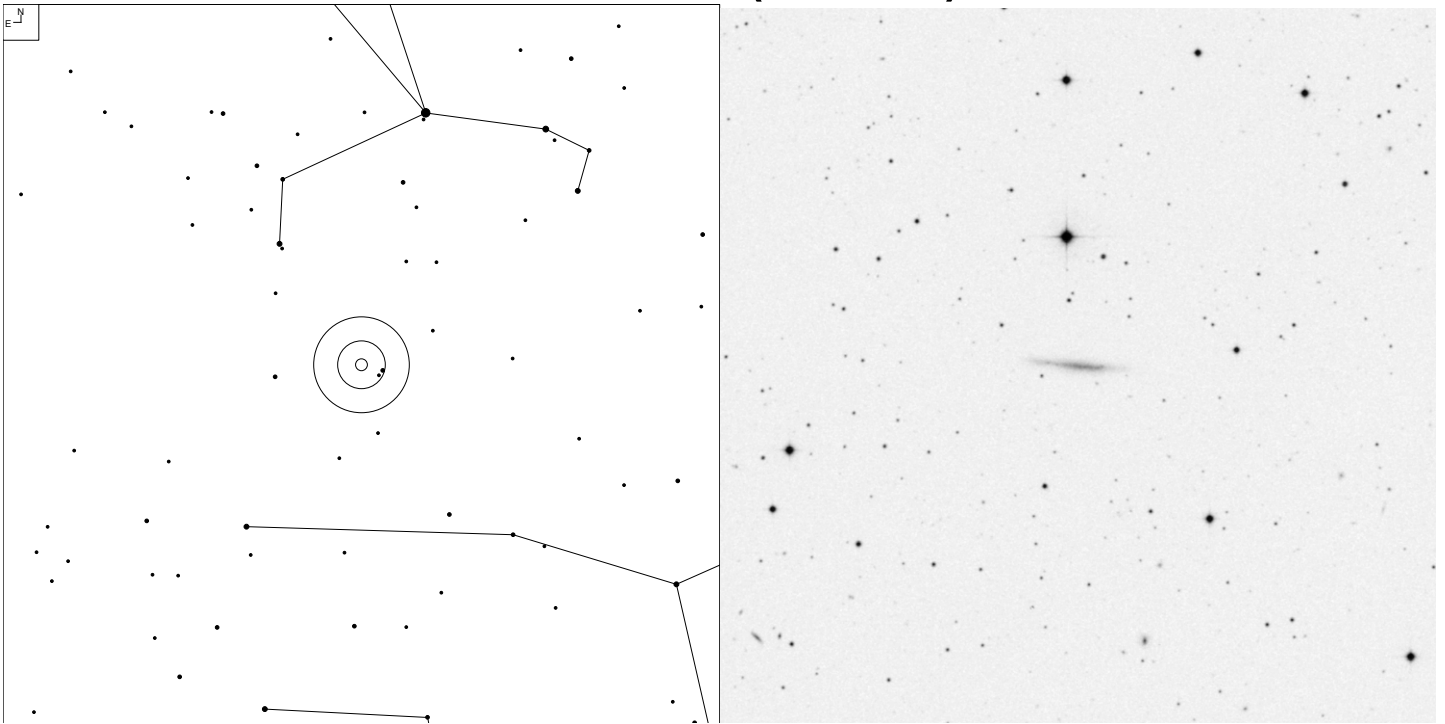
Name	RA	Dec	Mag	Size	Urano
UGC 9169	14h 19m 44.9s	+09°21'47"	13.5p	4.2 x 0.9'	89R

UGC 9242 (Boötes)



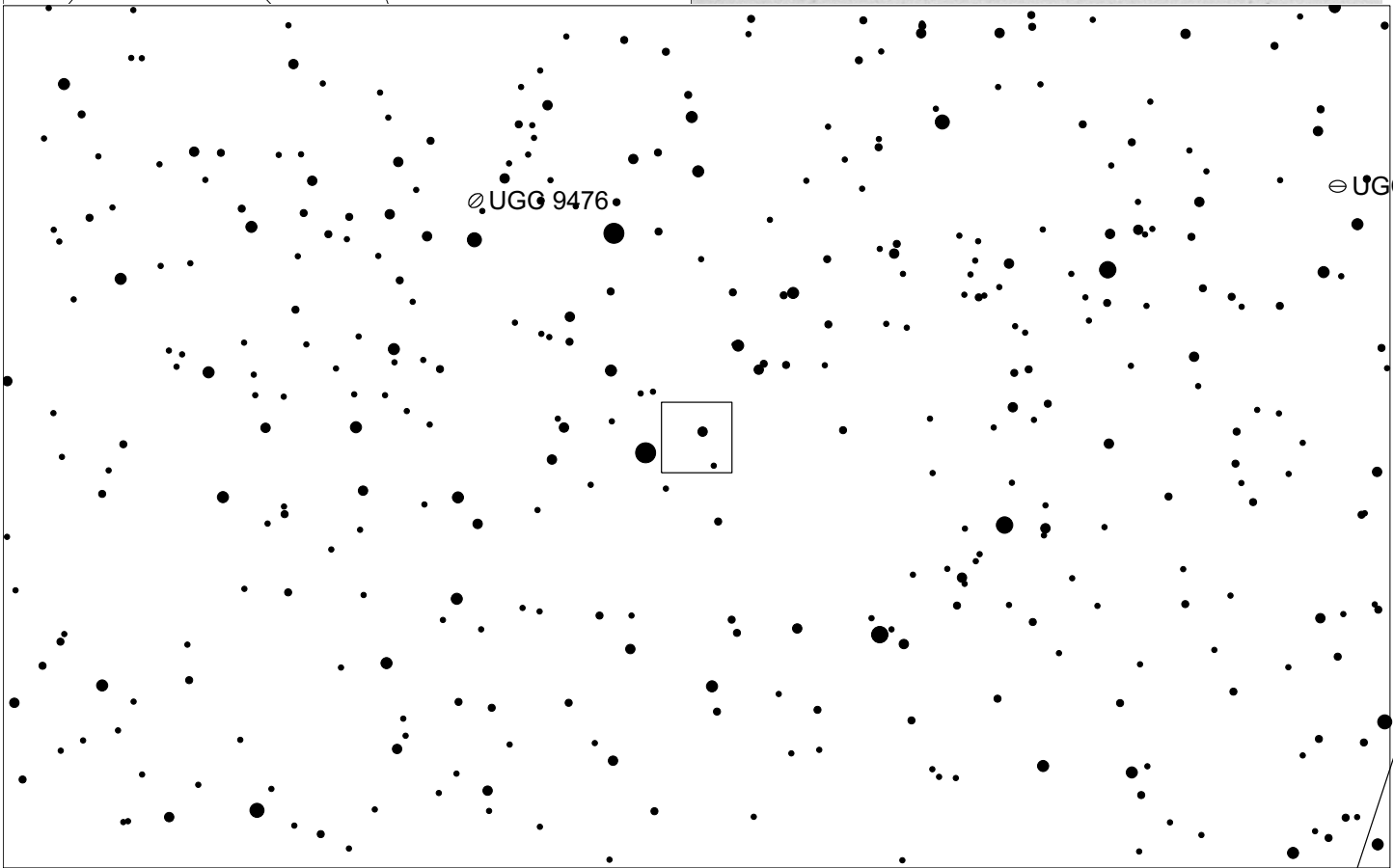
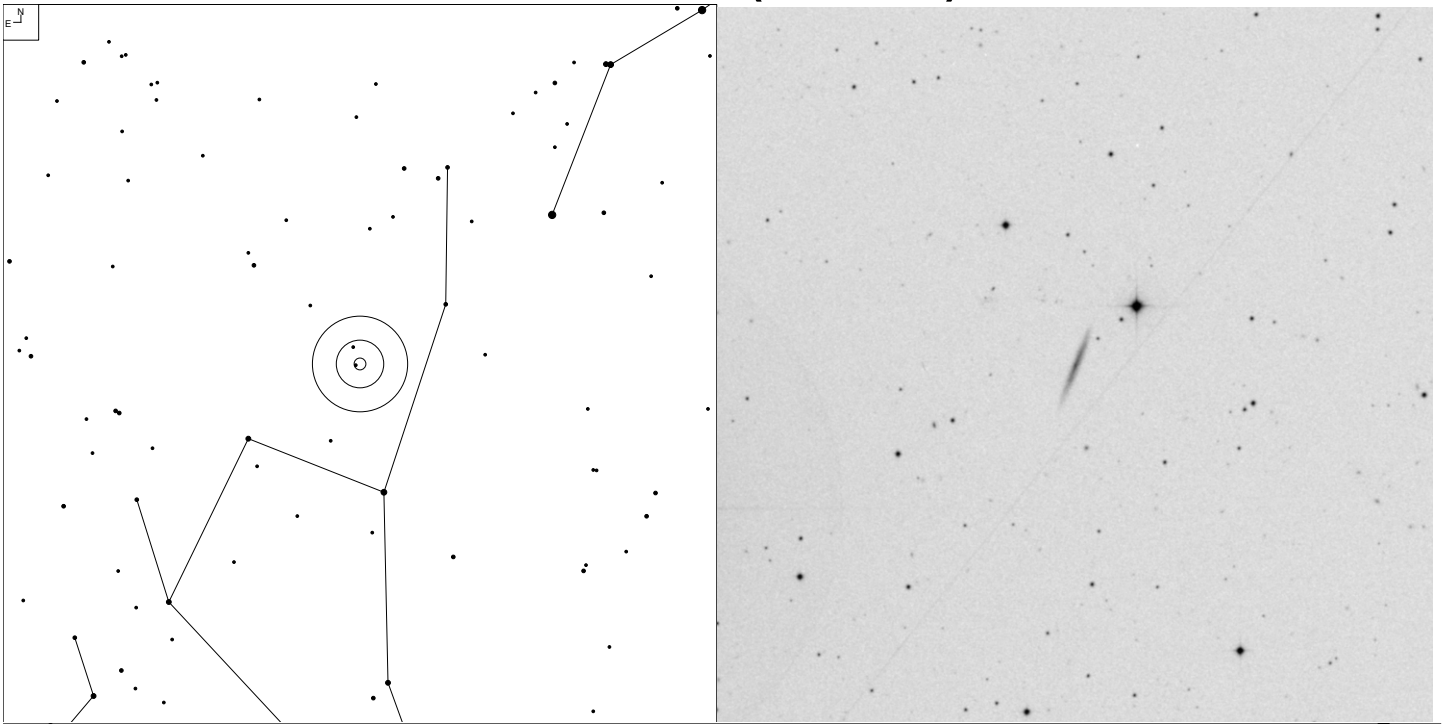
Name	RA	Dec	Mag	Size	Urano
UGC 9242	14h 25m 20.9s	+39°32'22"	14.1b	5.0 x 0.4'	52R

UGC 9249 (Boötes)



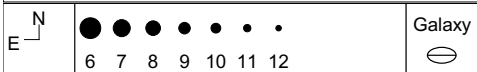
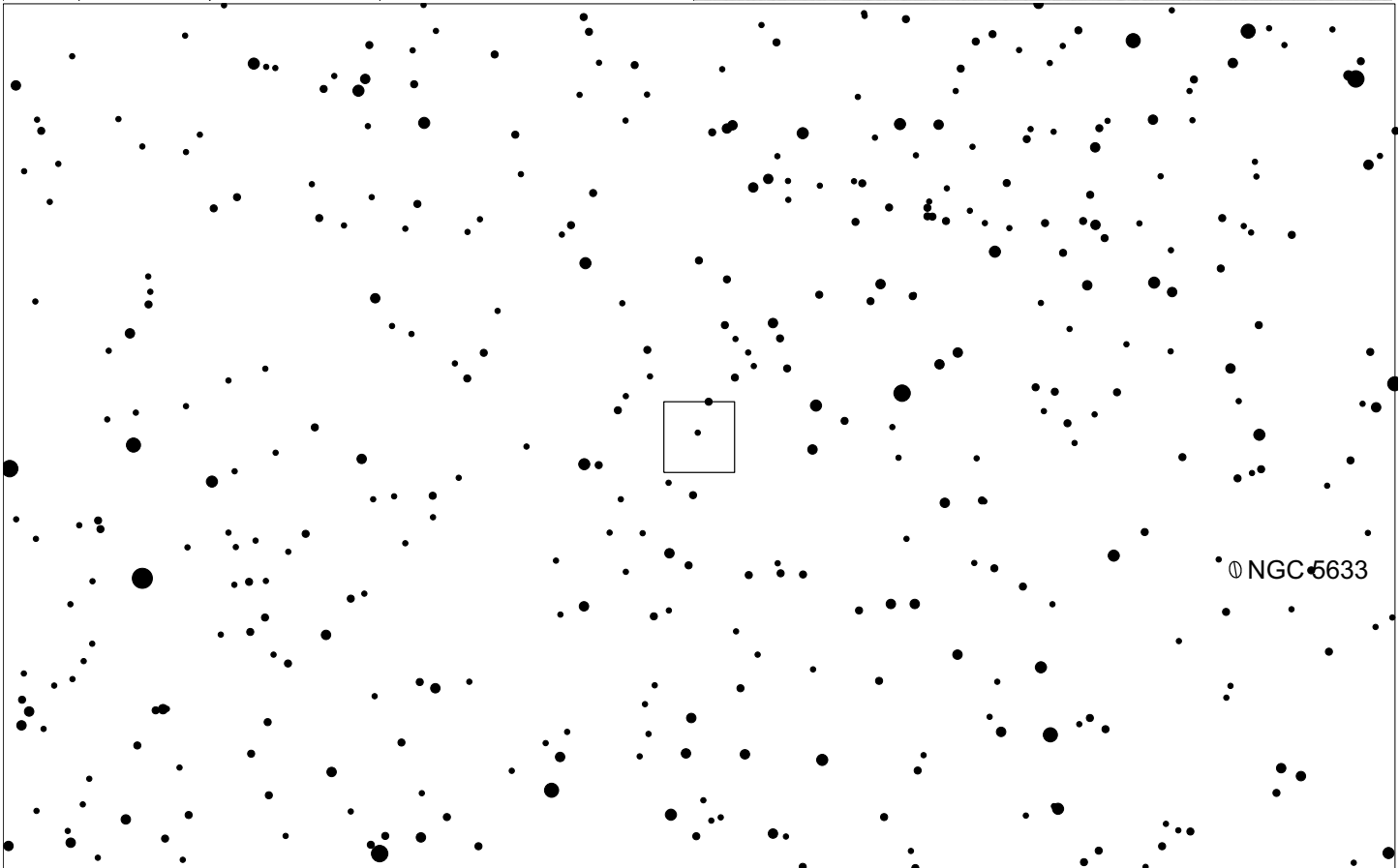
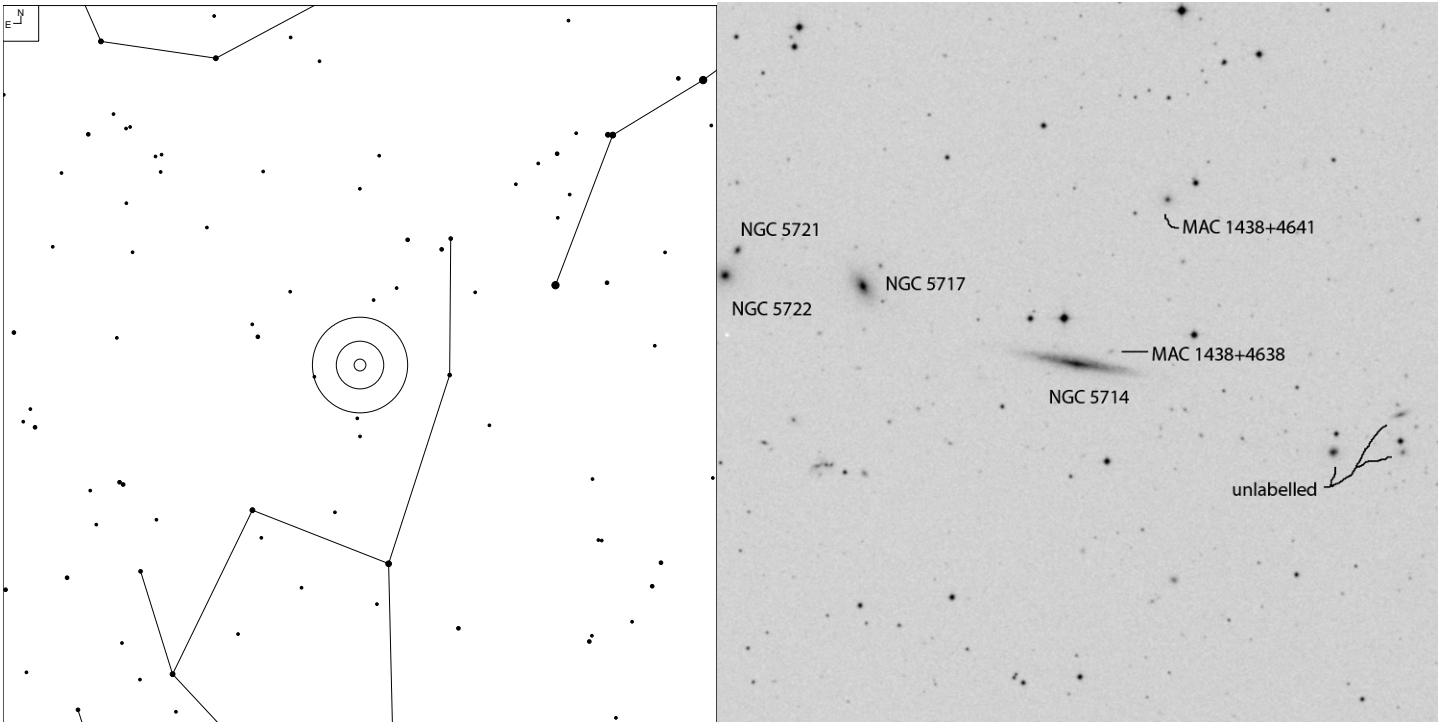
Name	RA	Dec	Mag	Size	Urano
UGC 9249	14h 27m 00.0s	+08°41'03"	14.7p	2.1 x 0.2'	89L

UGC 9422 (Boötes)



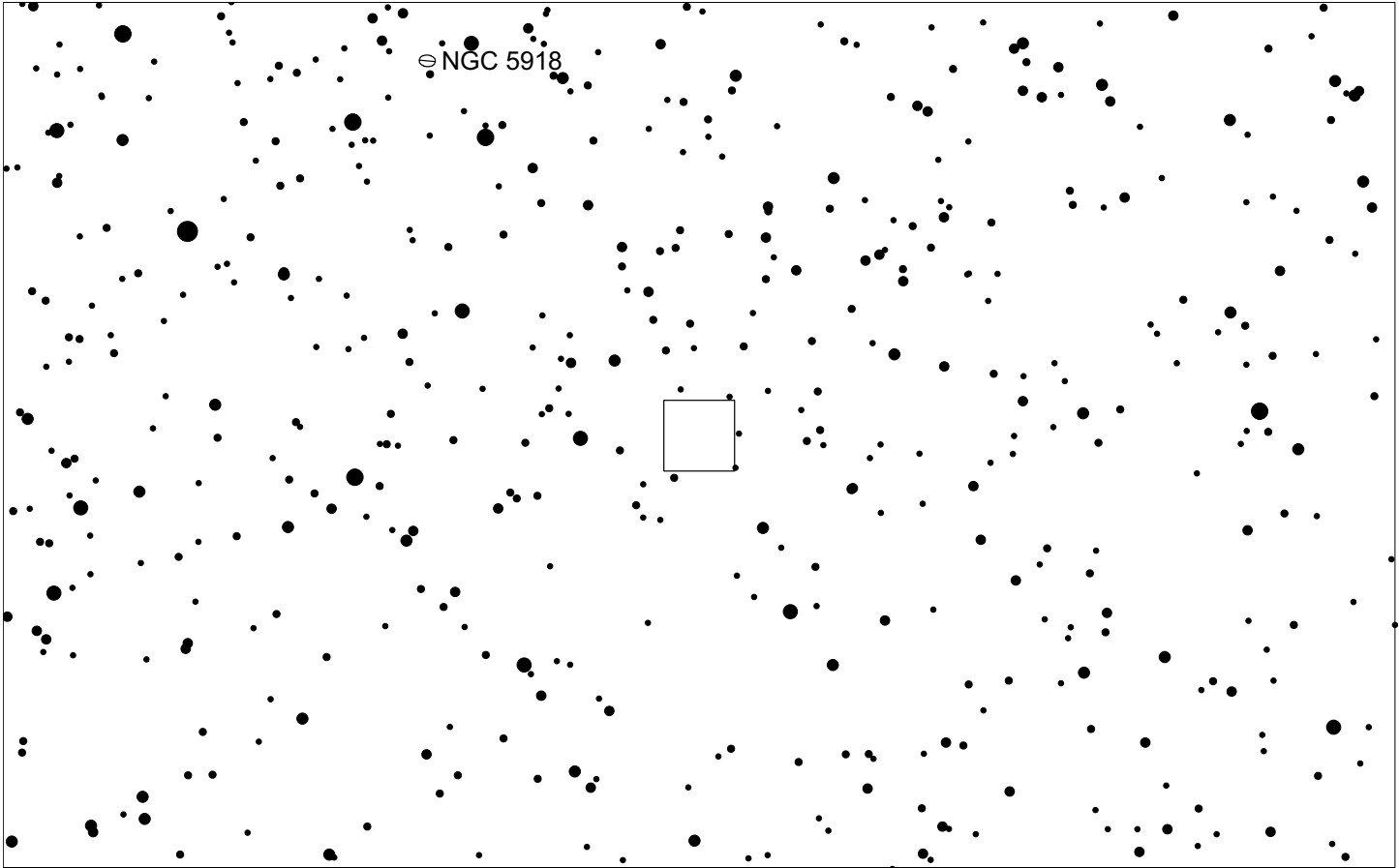
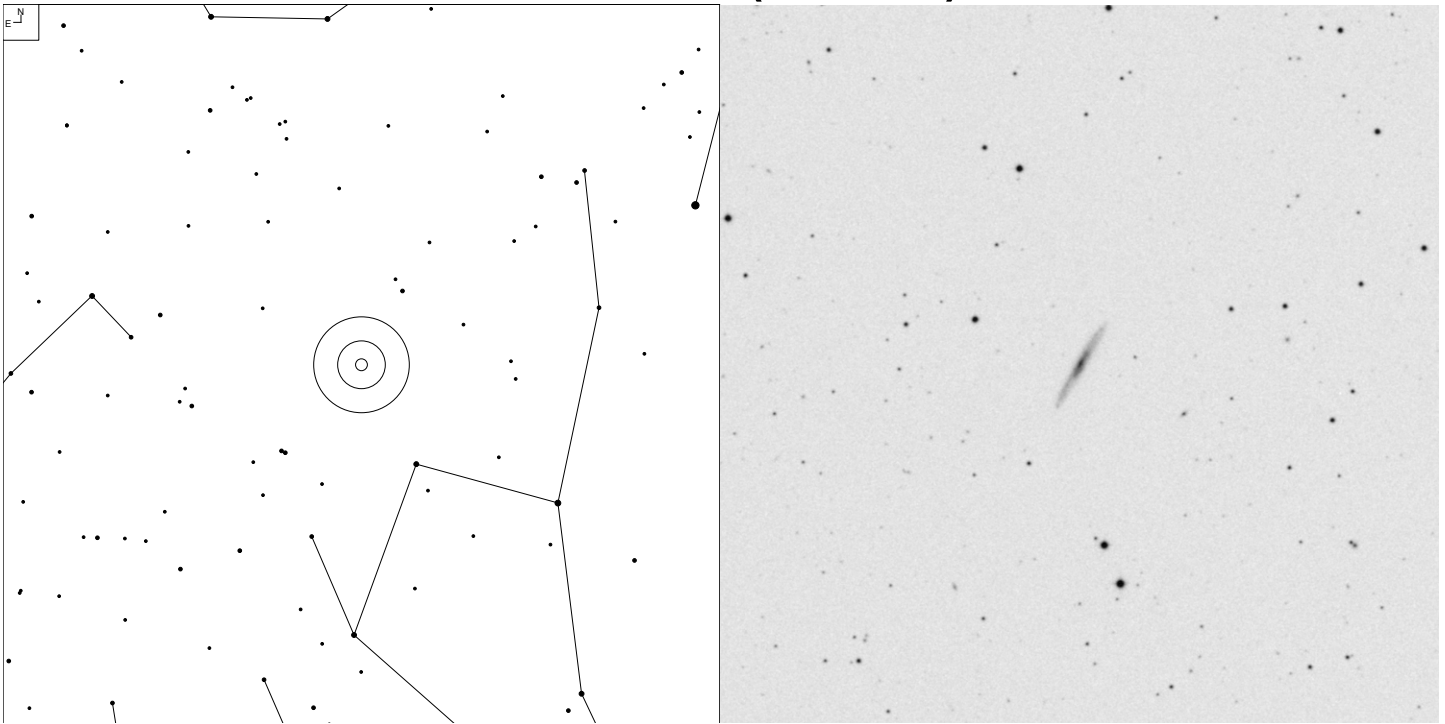
Name	RA	Dec	Mag	Size	Urano
UGC 9422	14h 37m 13.7s	+43°41'46"	15.3p	1.8 x 0.2'	36L

NGC 5714 (Boötes)



Name	RA	Dec	Mag	Size	Urano
NGC 5714	14h 38m 11.4s	+46°38'19"	14.1p	4.4 x 0.5'	36L

UGC 9780 (Boötes)

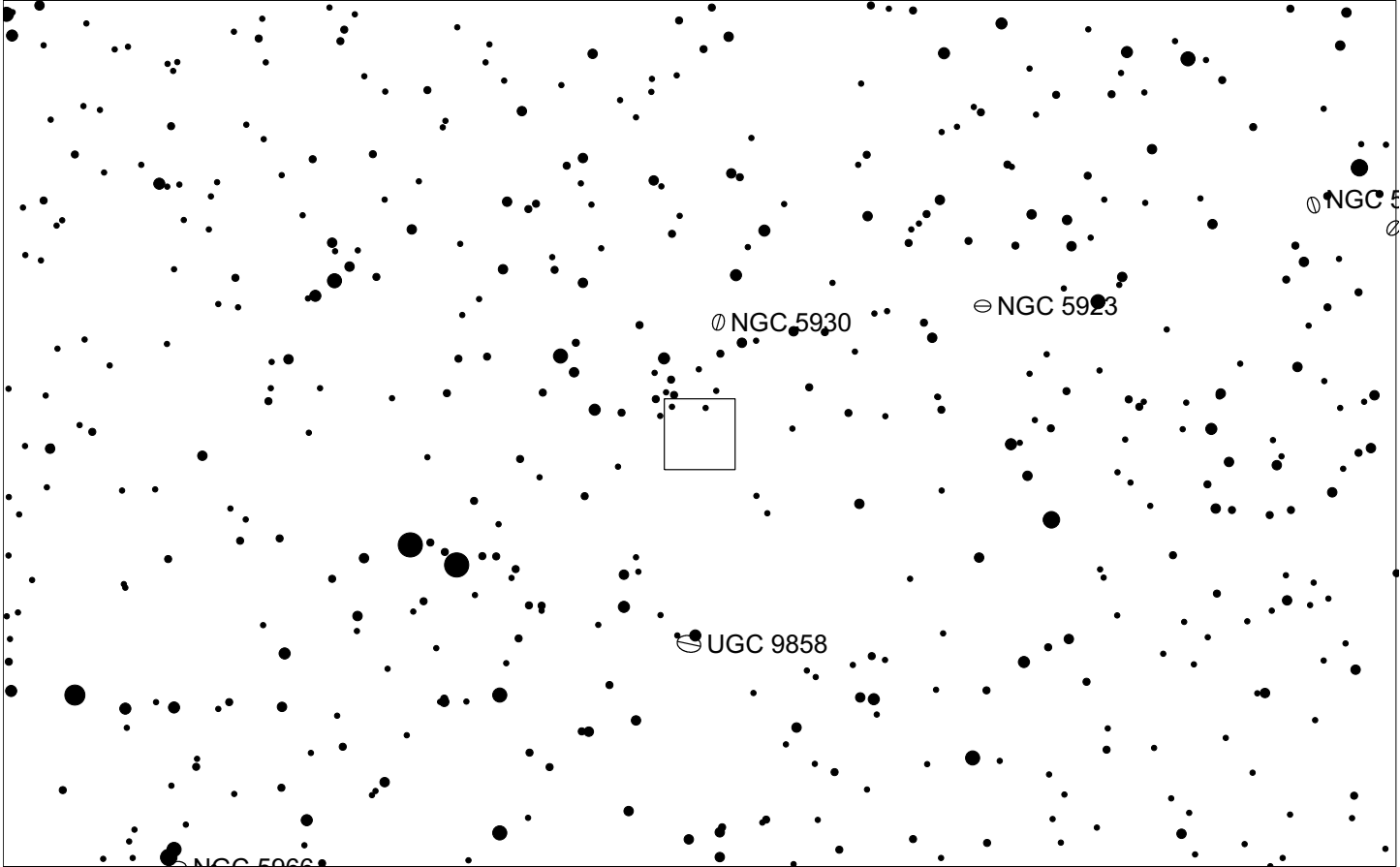
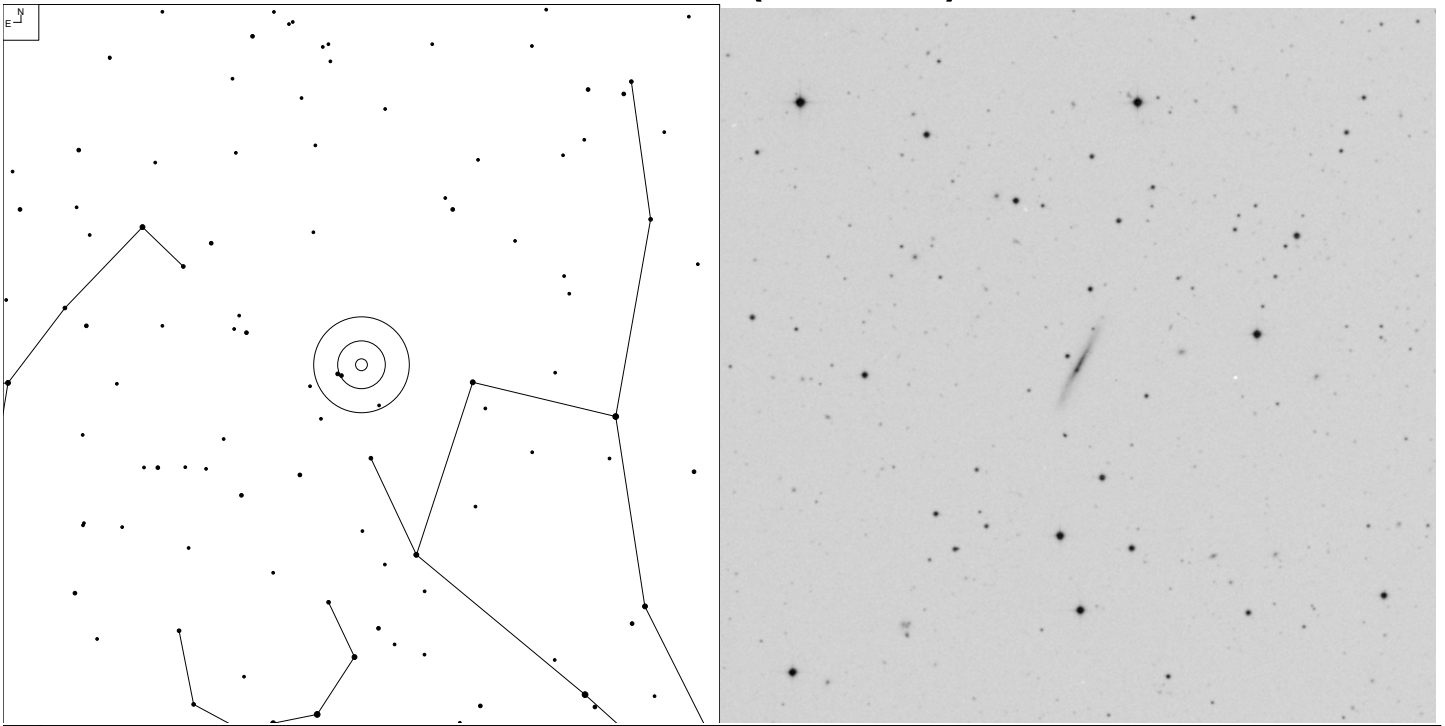


6 7 8 9 10 11 12

Galaxy

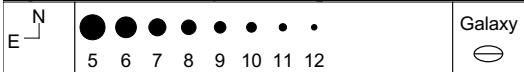
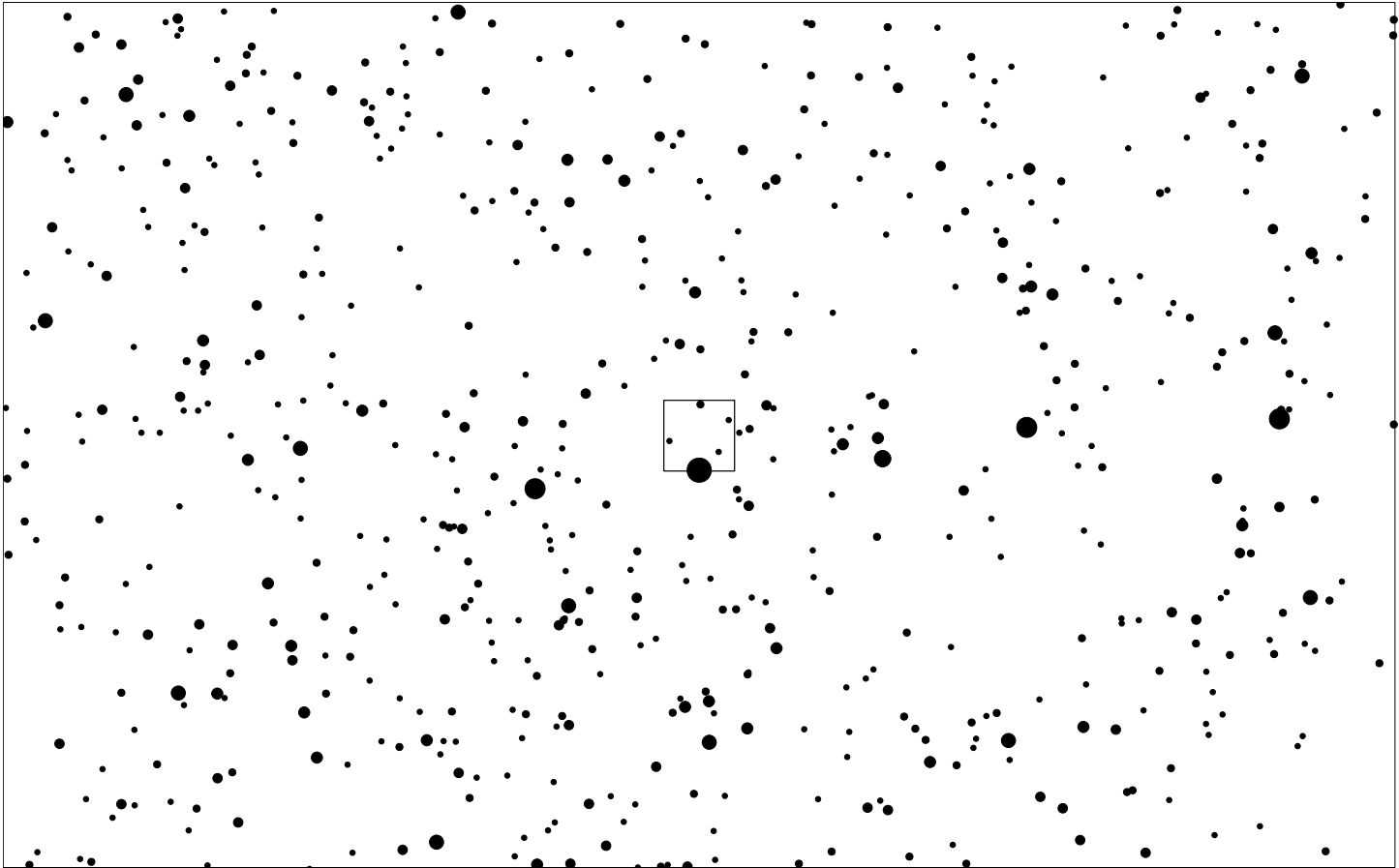
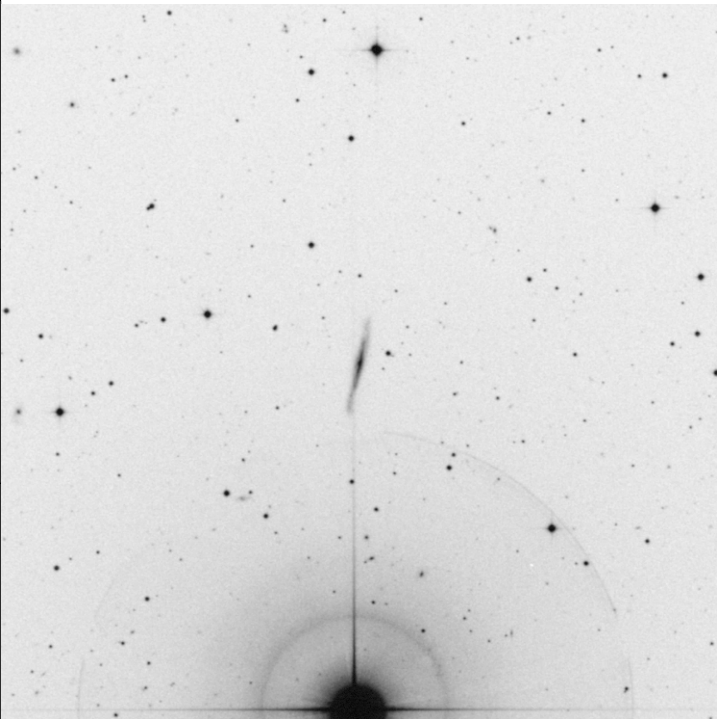
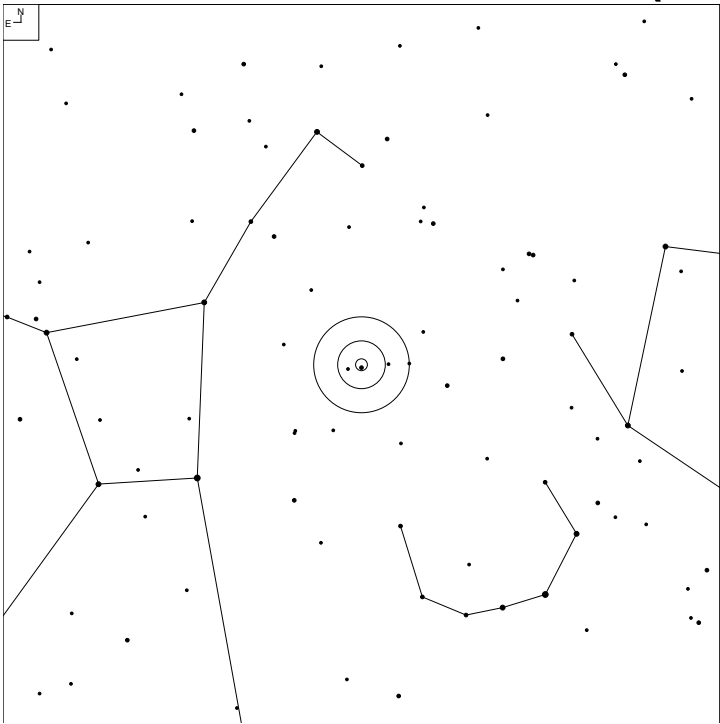
Name	RA	Dec	Mag	Size	Urano
UGC 9780	15h 14m 01.0s	+44°35'27"	15.3p	2.0 x 0.2'	35R

UGC 9856 (Boötes)



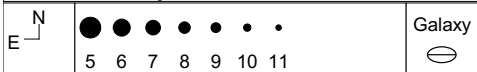
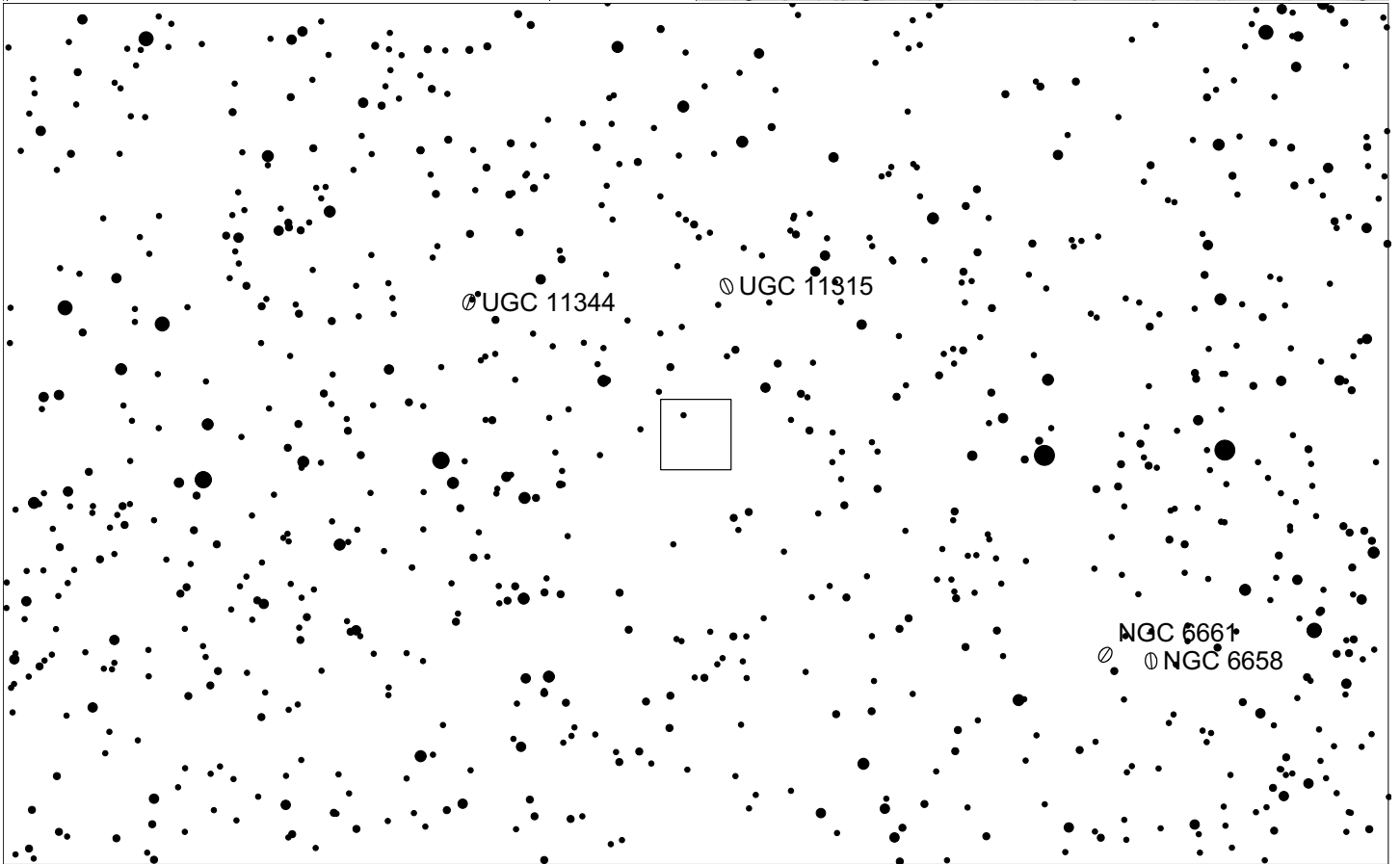
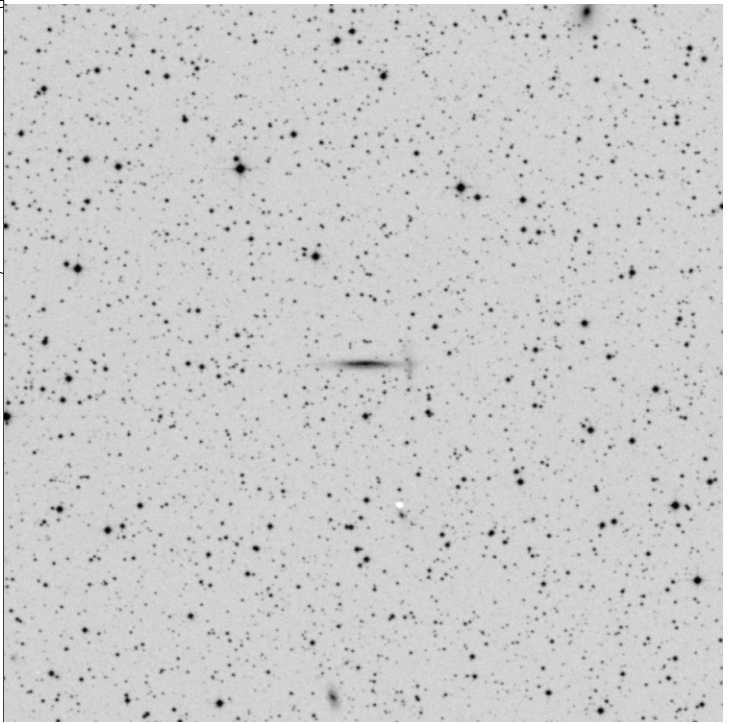
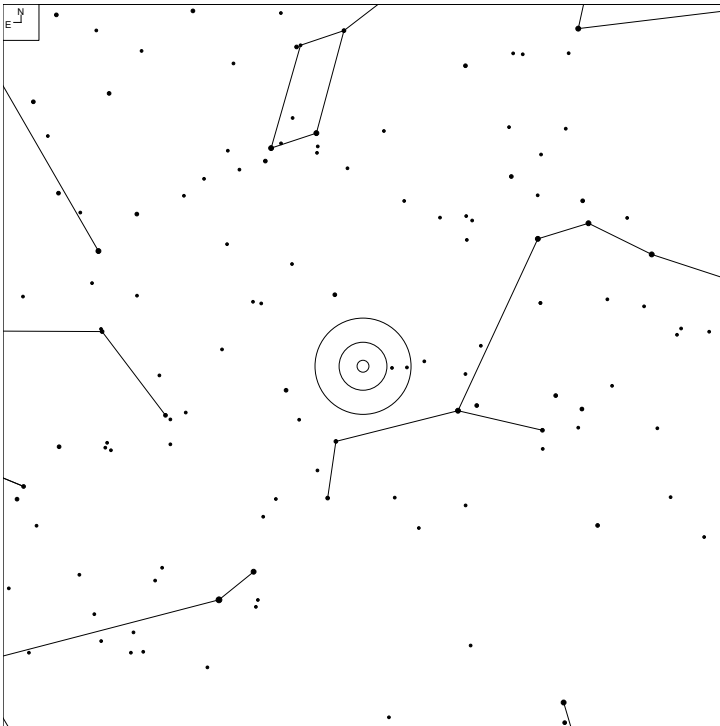
Name	RA	Dec	Mag	Size	Urano
UGC 9856	15h 26m 28.7s	+41°17'31"	15.3p	2.2 x 0.3'	35R

UGC 10227 (Corona Borealis)



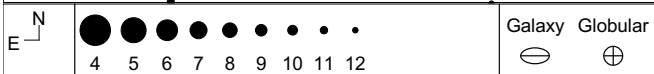
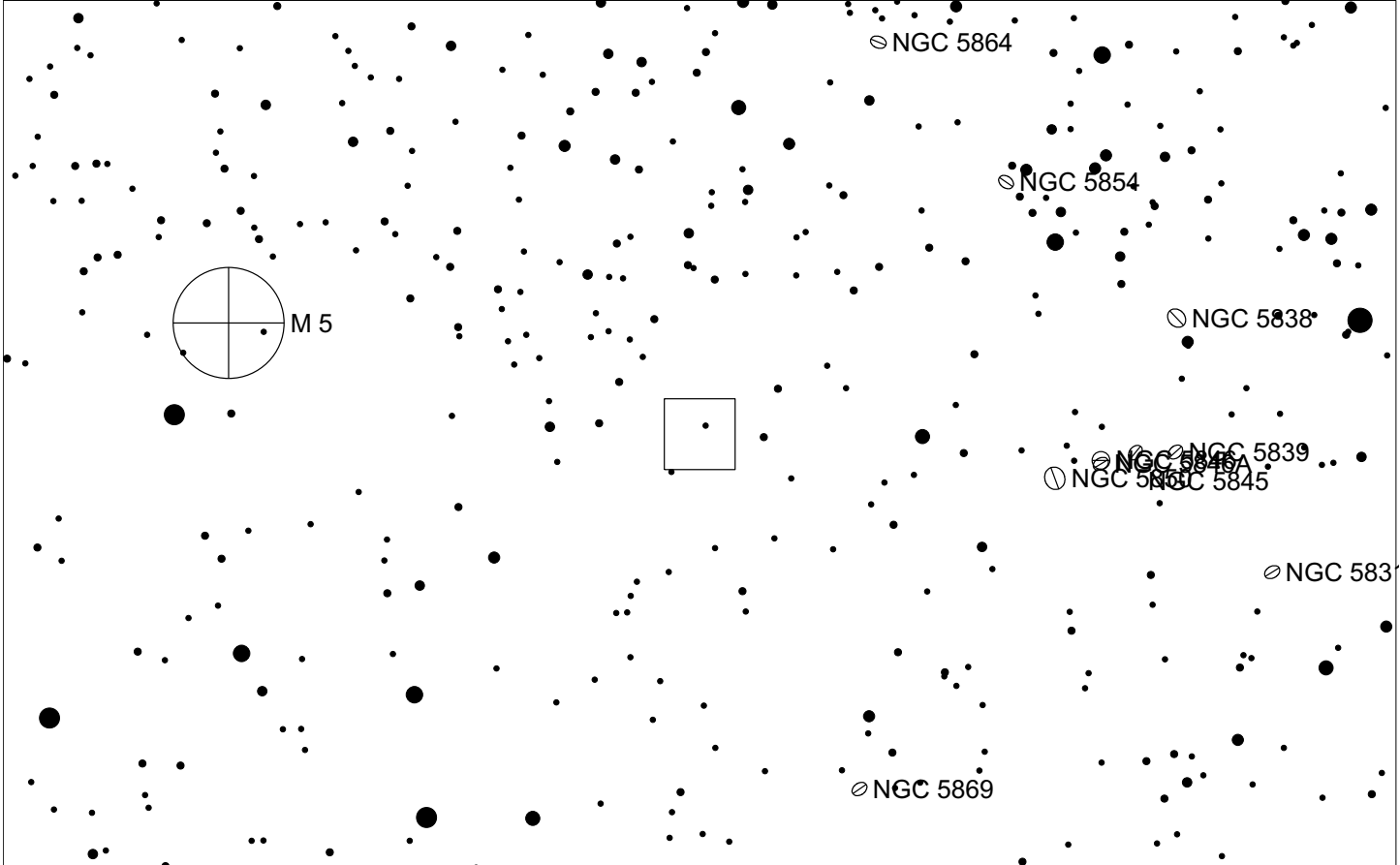
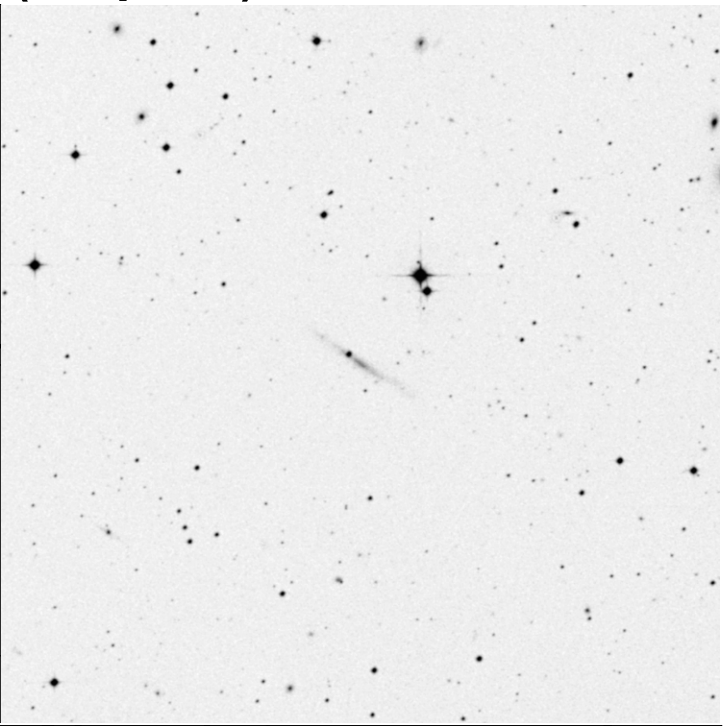
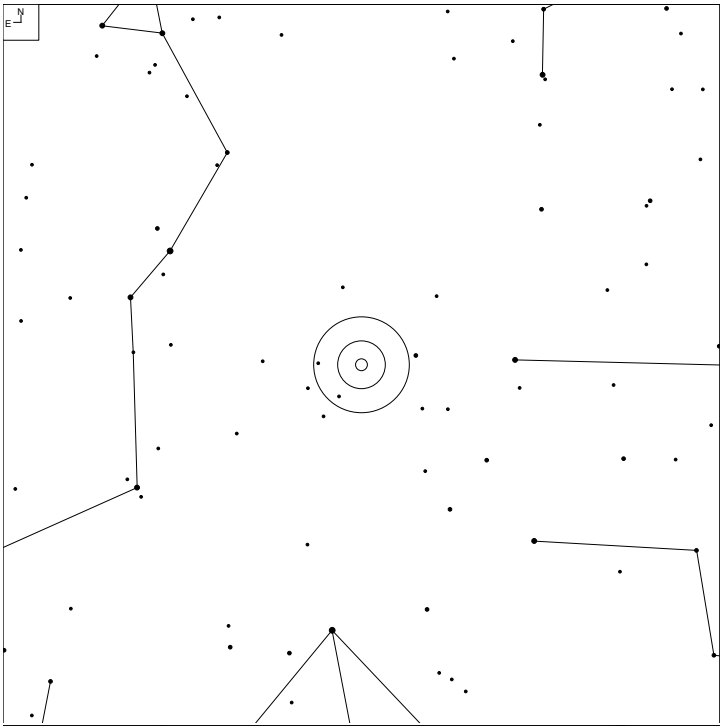
Name	RA	Dec	Mag	Size	Urano
UGC 10227	16h 08m 58.6s	+36°36'38"	15.3p	2.3 x 0.2'	51L

UGC 11320 (Hercules)



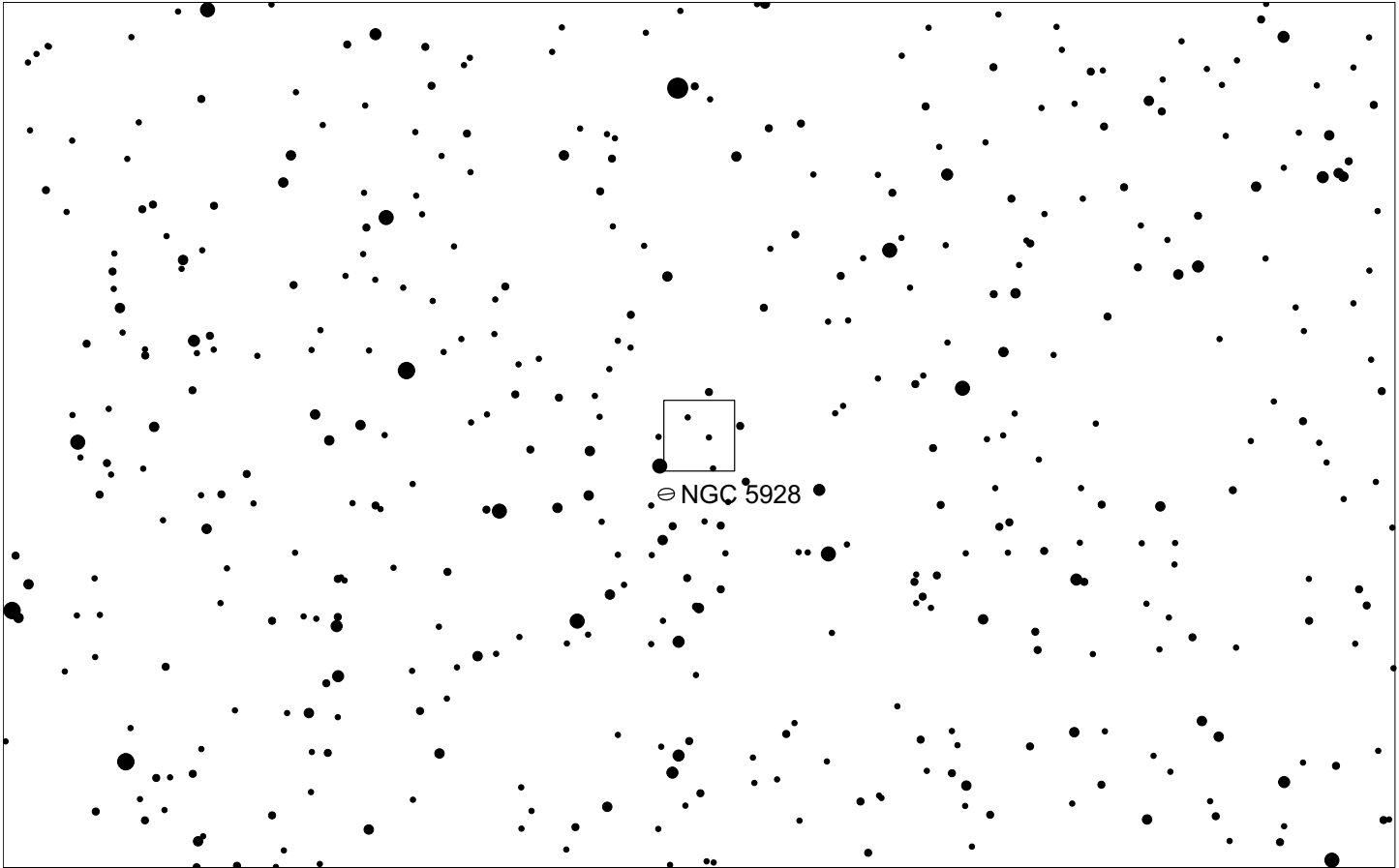
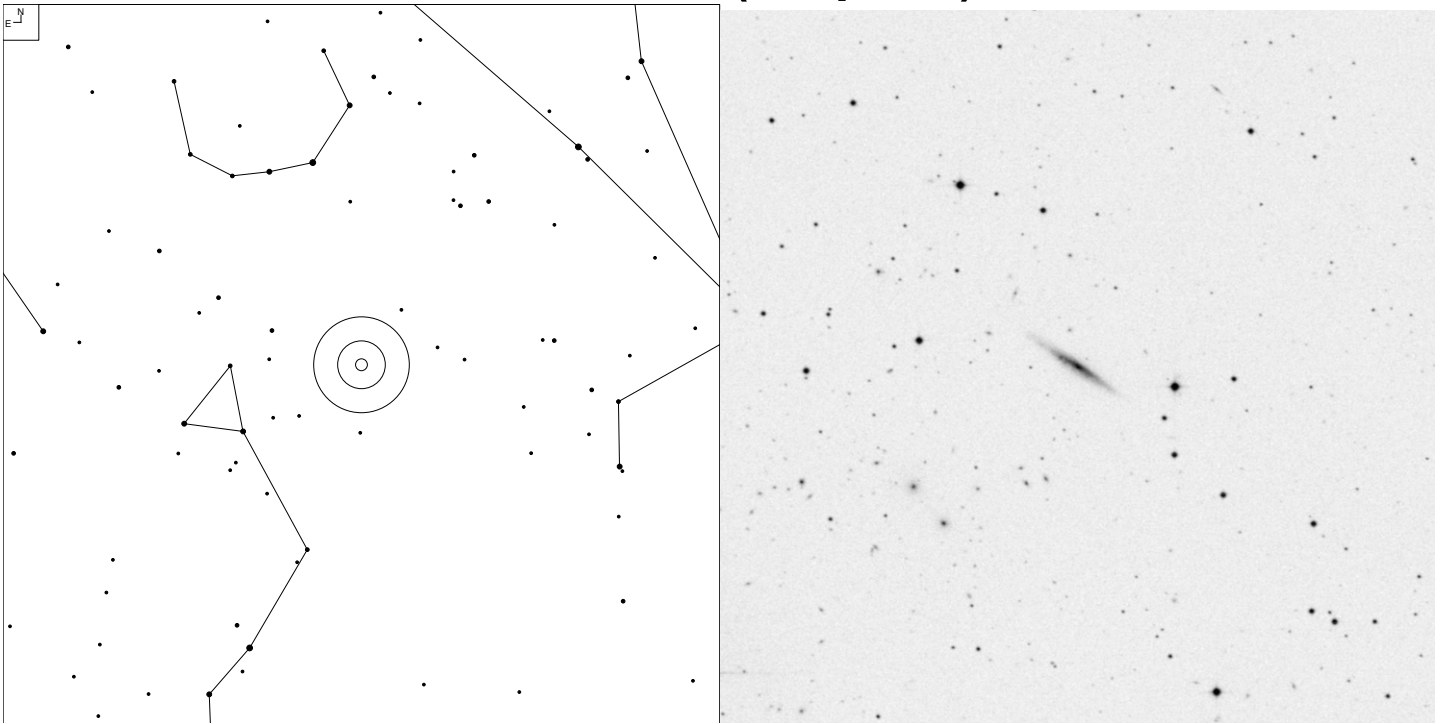
Name	RA	Dec	Mag	Size	Urano
UGC 11320	18h 40m 48.0s	+23°41'02"	14.9p	1.9 x 0.2'	67R

UGC 9760 (Serpens)



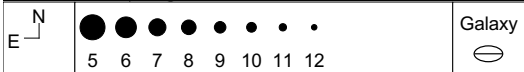
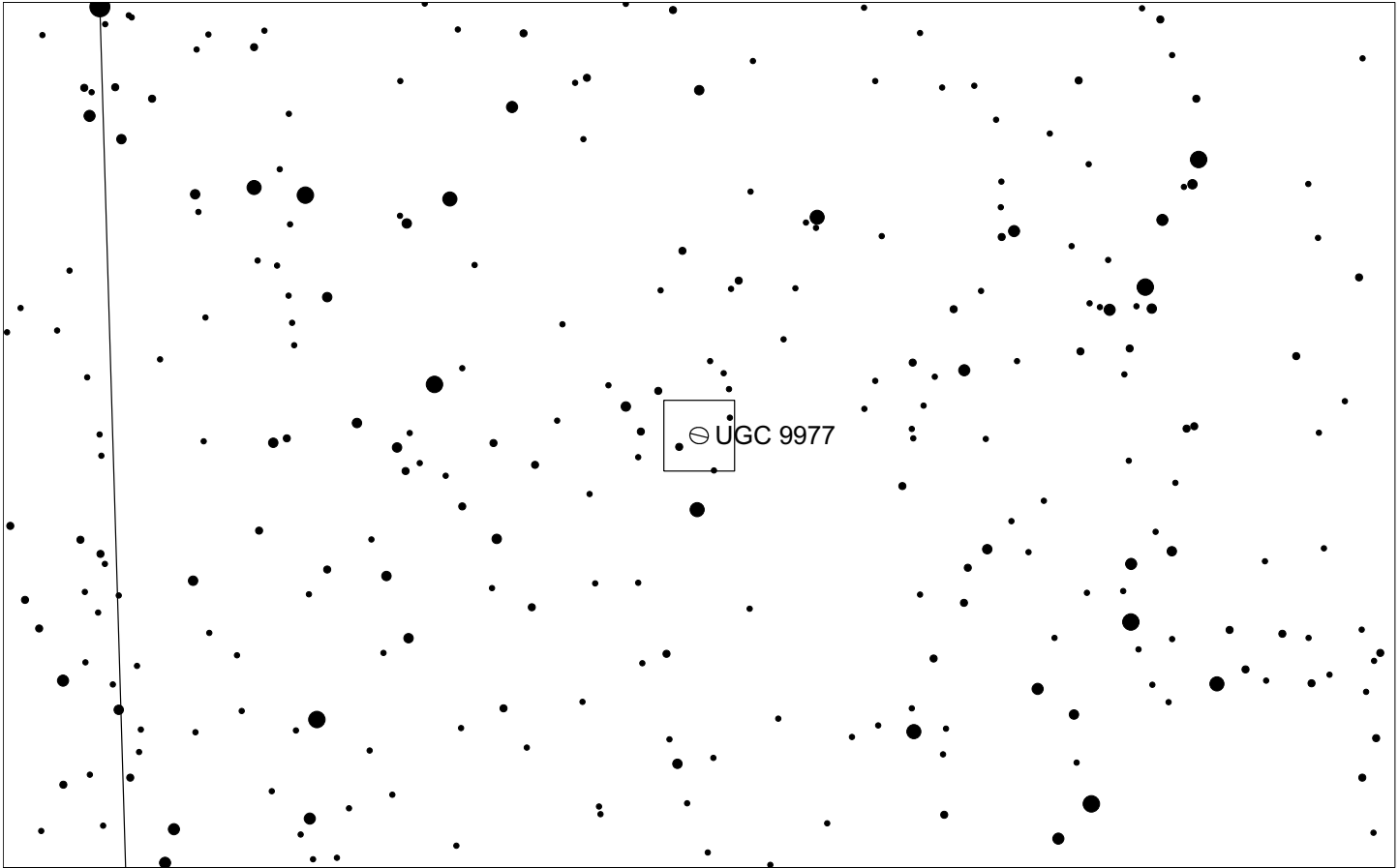
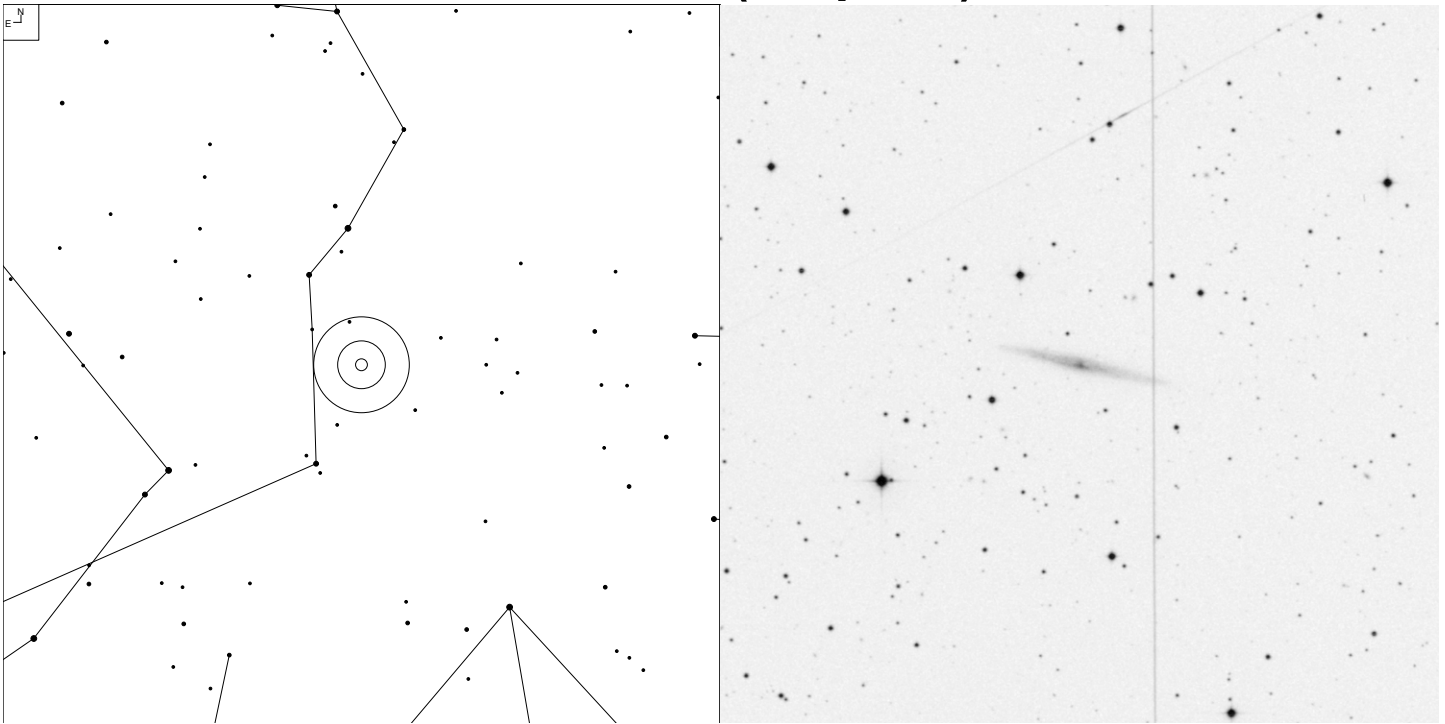
Name	RA	Dec	Mag	Size	Urano
UGC 9760	15h 12m 02.6s	+01°41'56"	14.7p	2.4 x 0.2'	108R

UGC 9841 (Serpens)



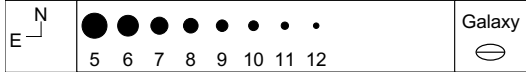
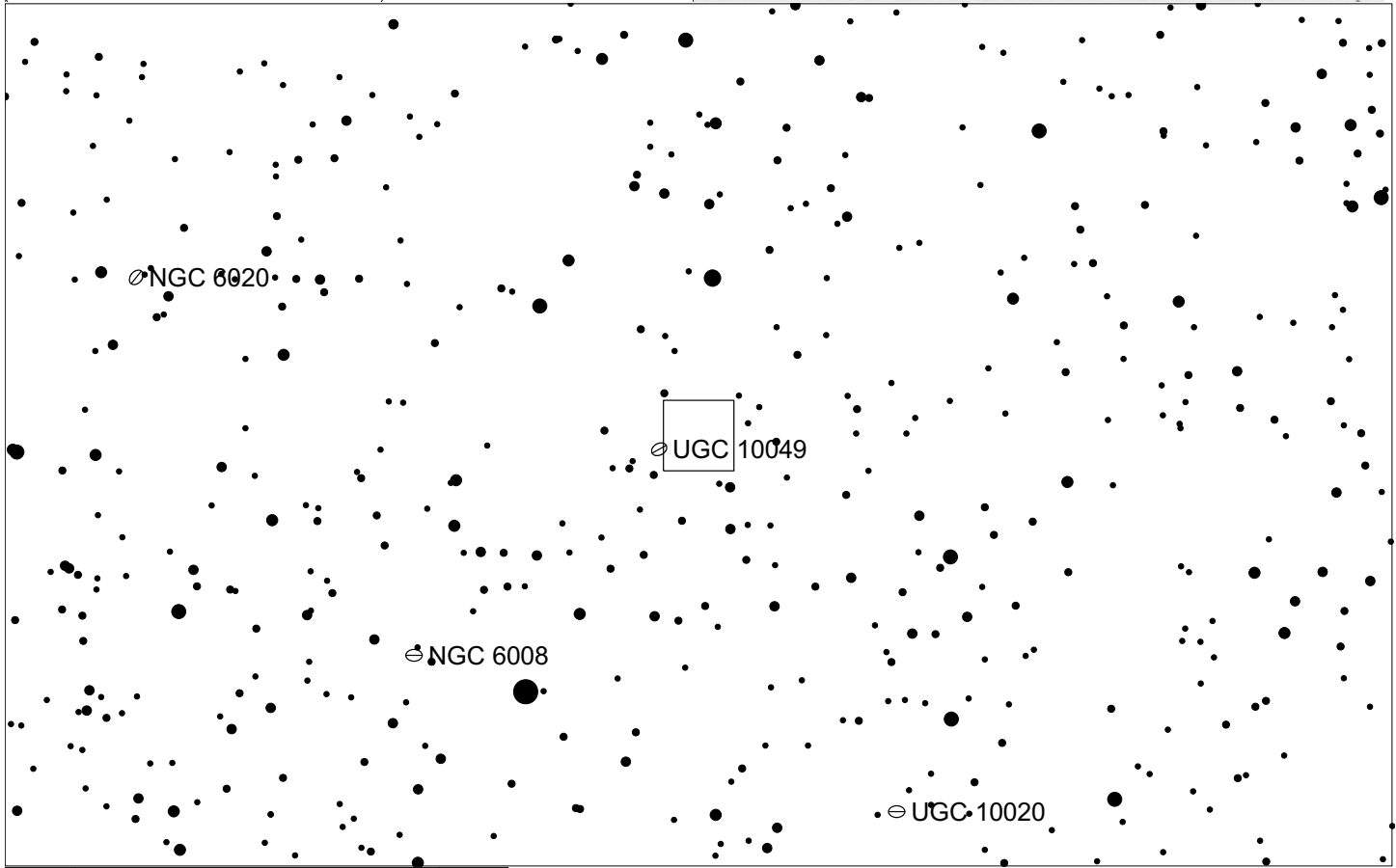
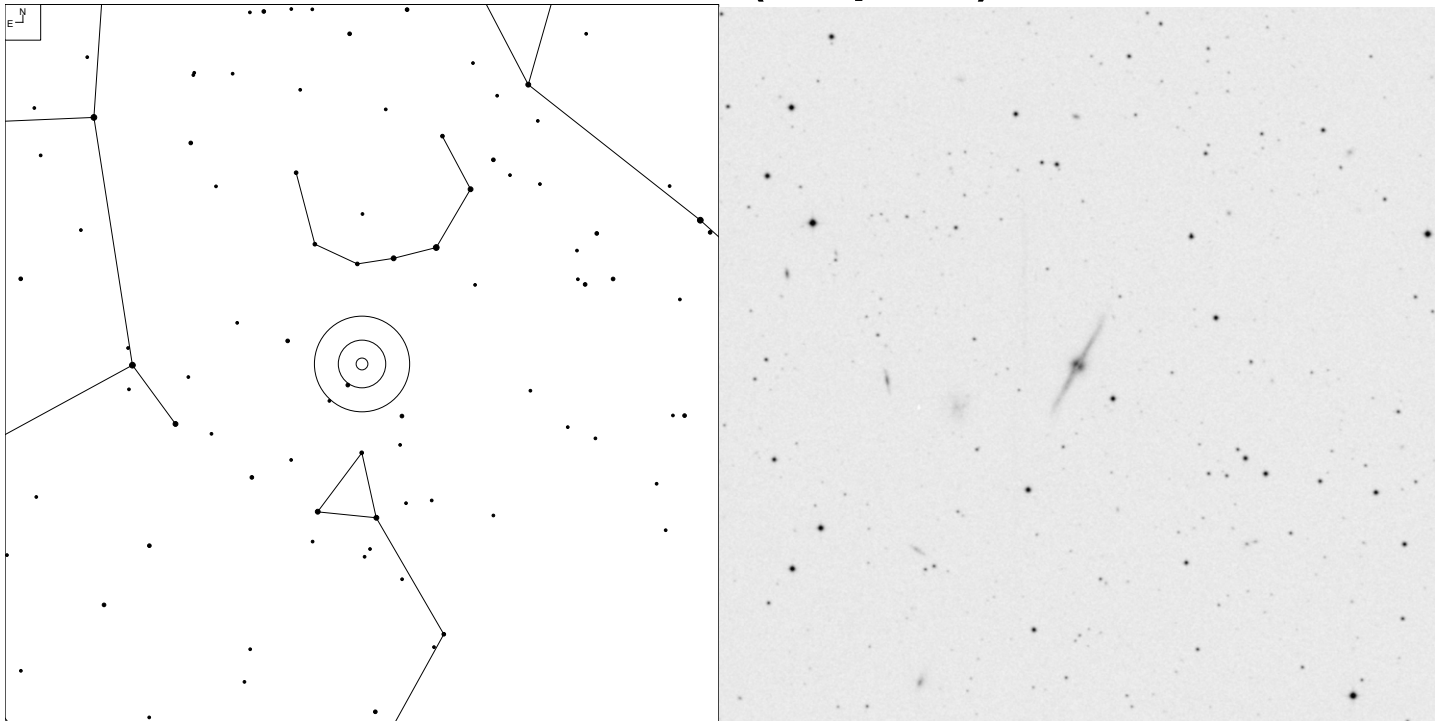
Name	RA	Dec	Mag	Size	Urano
UGC 9841	15h 25m 33.6s	+18°16'41"	14.3p	2.4 x 0.4'	69R

UGC 9977 (Serpens)



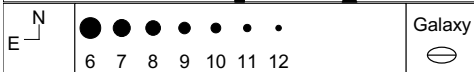
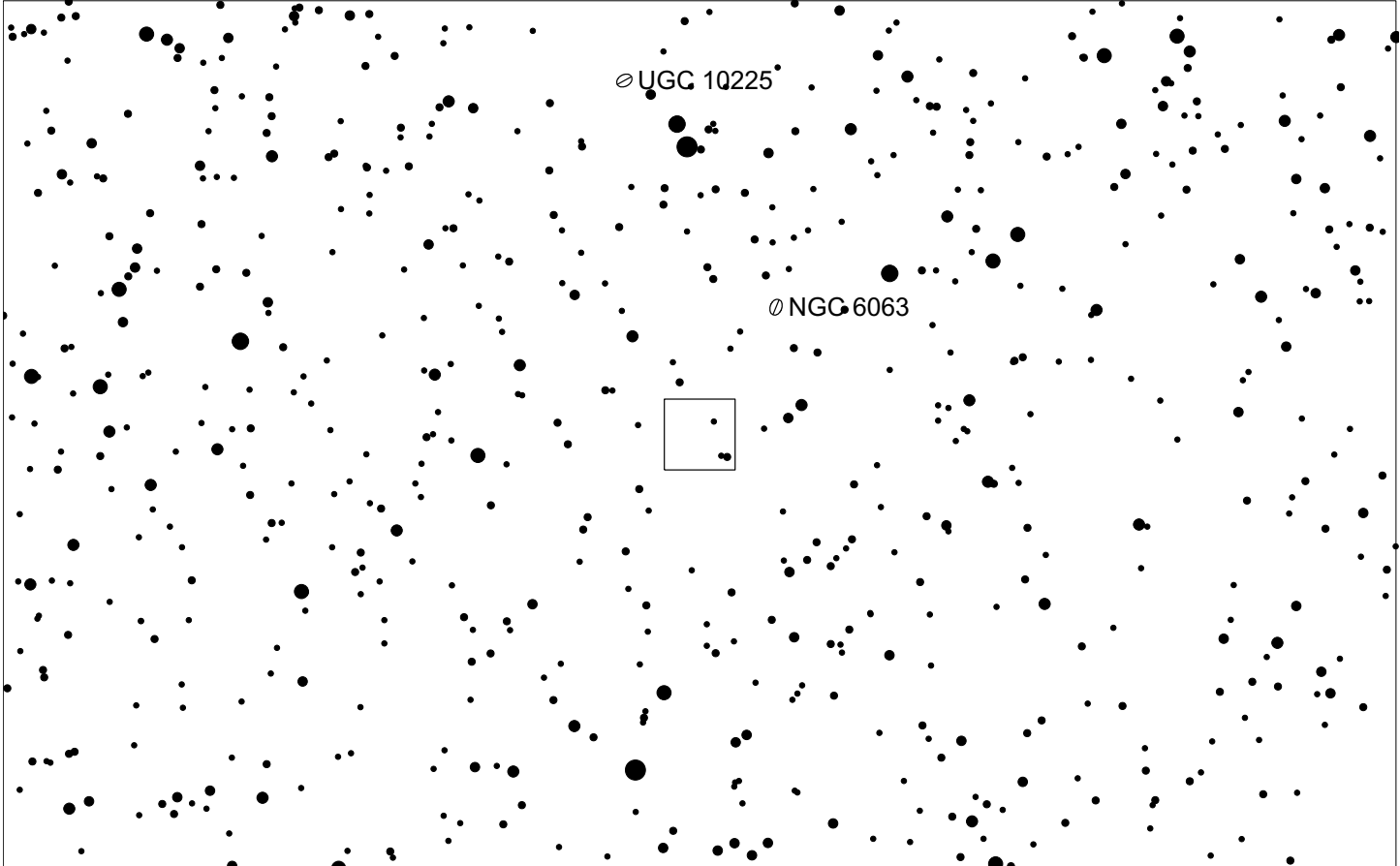
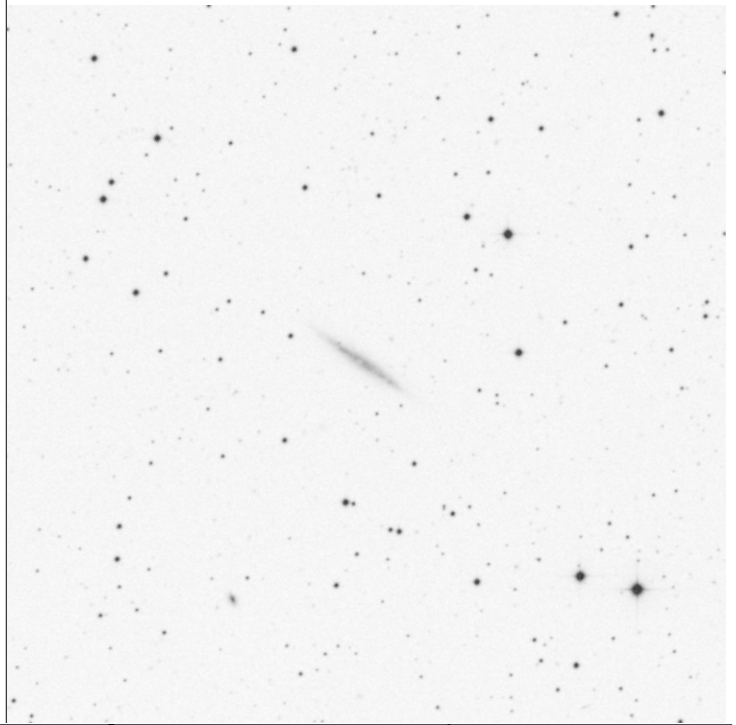
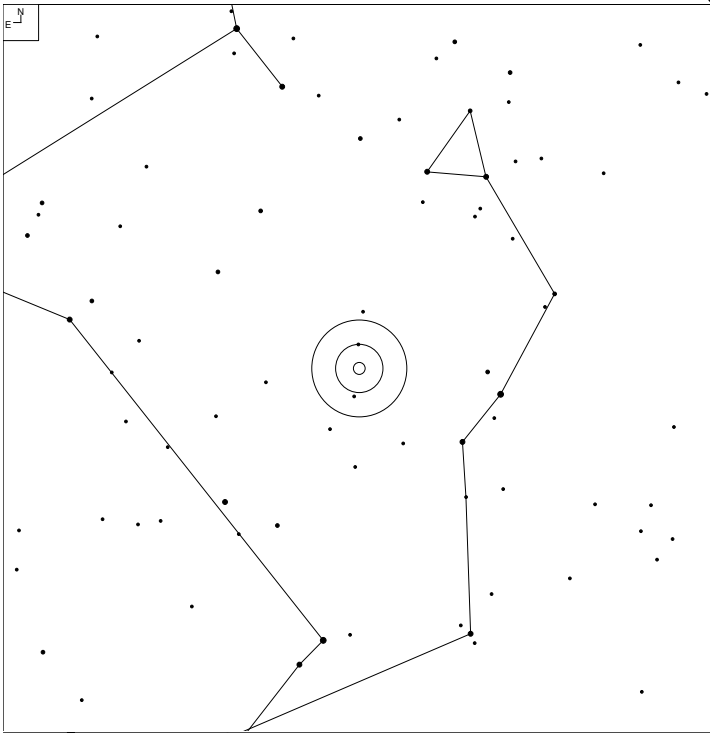
Name	RA	Dec	Mag	Size	Urano
UGC 9977	15h 41m 59.5s	+00°42'47"	13.9p	3.8 x 0.4'	108L

UGC 10043 (Serpens)



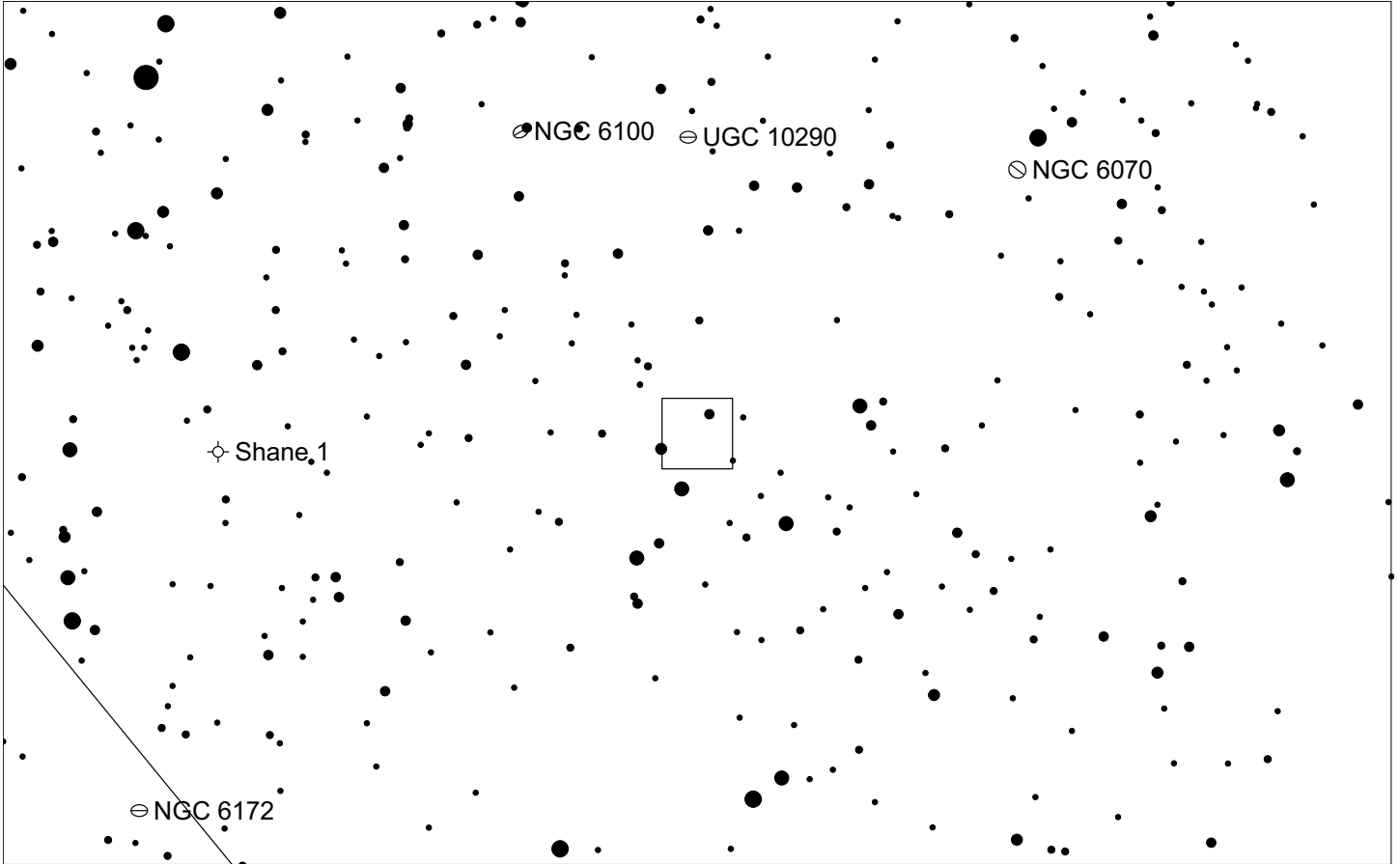
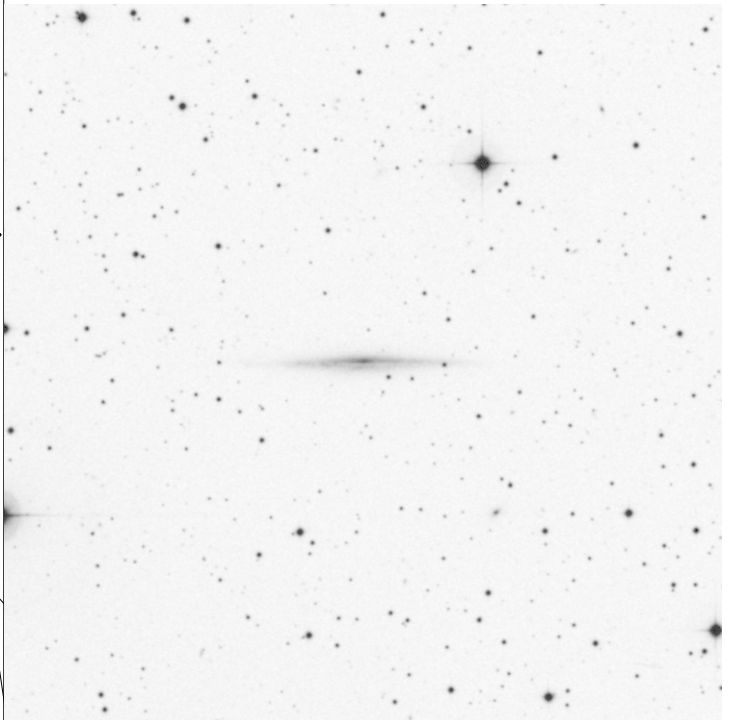
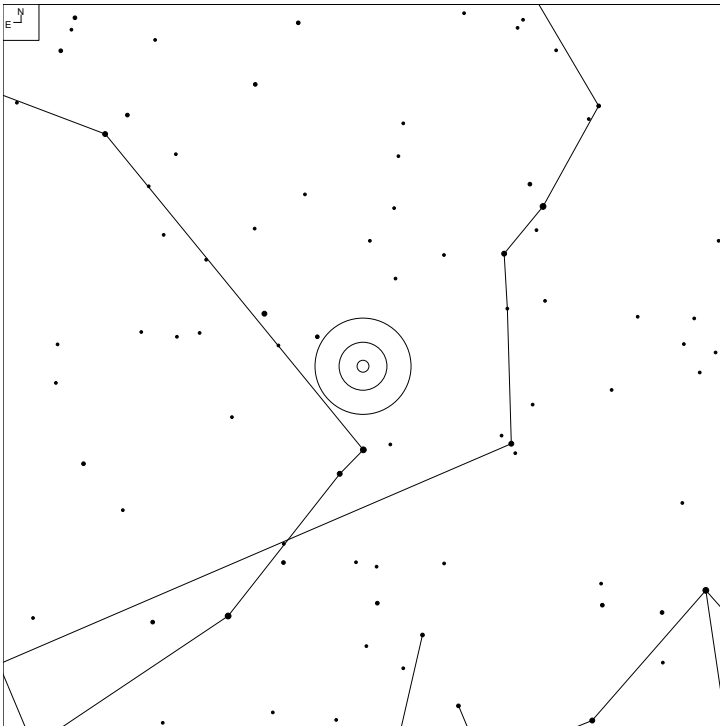
Name	RA	Dec	Mag	Size	Urano
UGC 10043	15h 48m 41.3s	+21°52'06"	14.8p	2.6 x 0.4'	69R

IC 1197 (Serpens)



Name	RA	Dec	Mag	Size	Urano
IC 1197	16h 08m 17.3s	+07°32'20"	14.1p	2.9 x 0.4'	88L

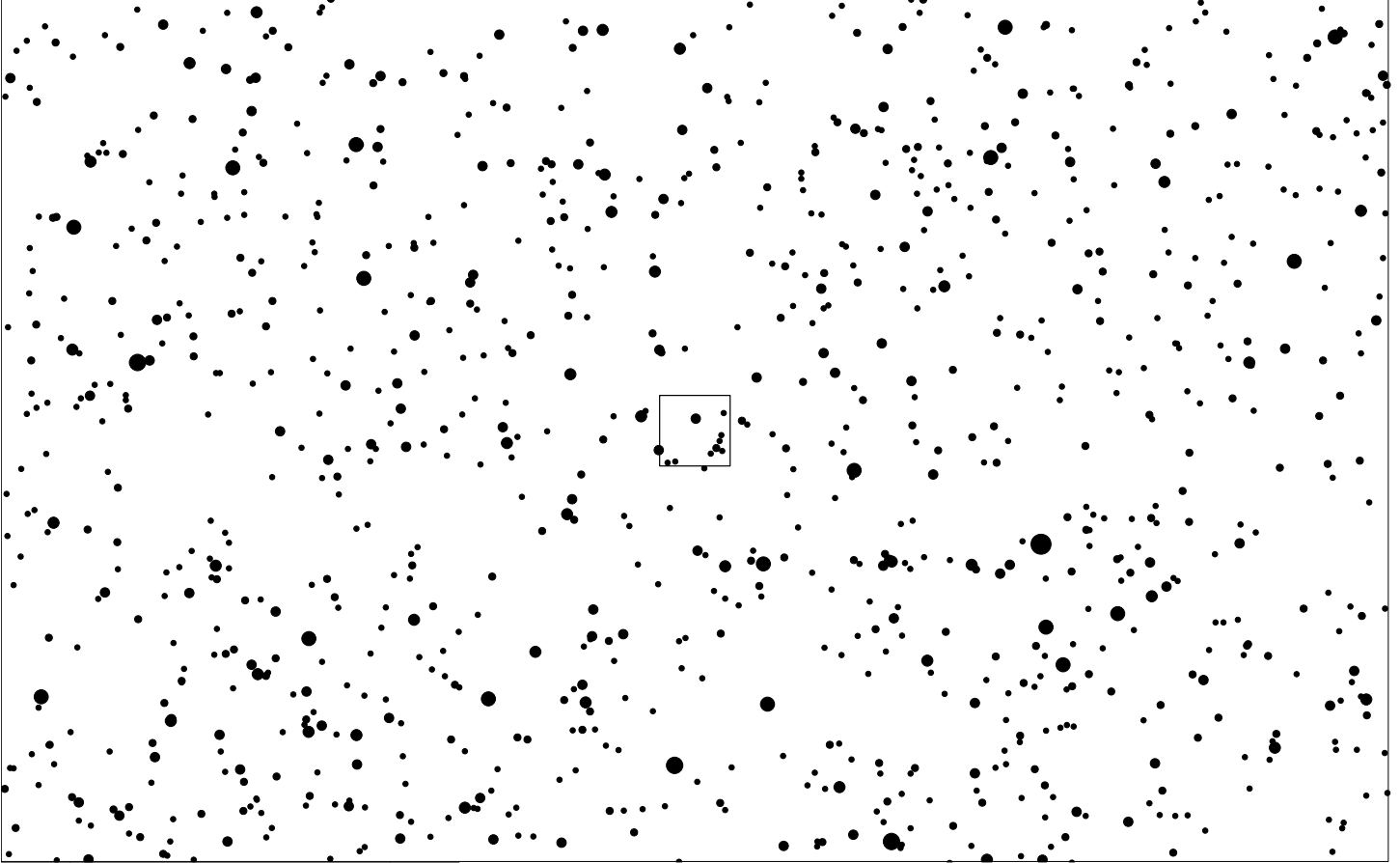
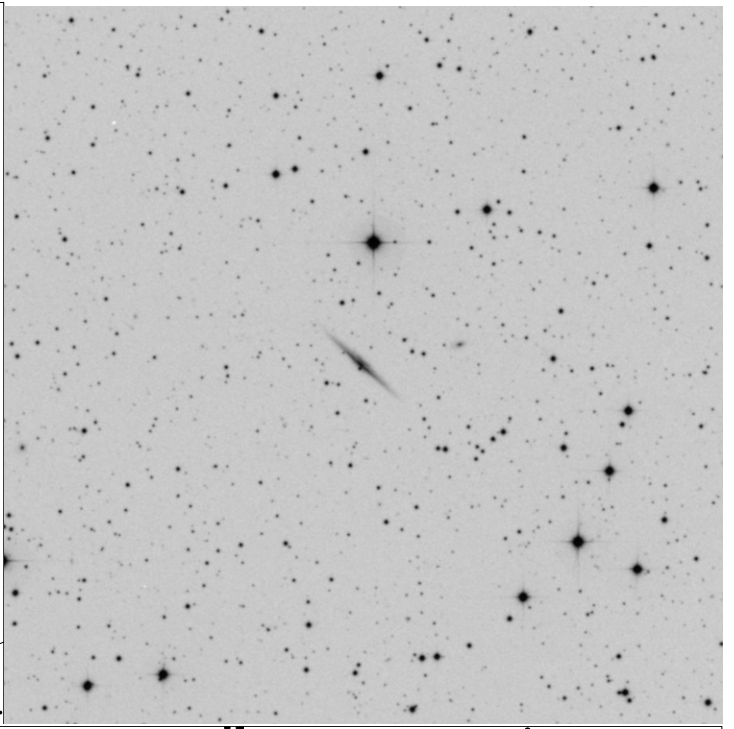
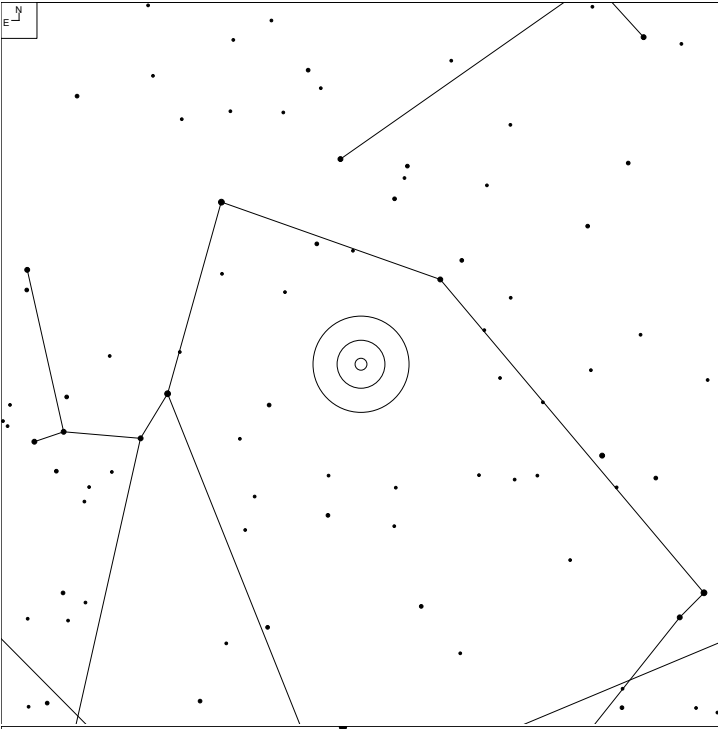
UGC 10288 (Serpens)



E ↙ N ↑	● ● ● ● ● ● ● ●	Galaxy	Planetary
	5 6 7 8 9 10 11 12	☉	⊕

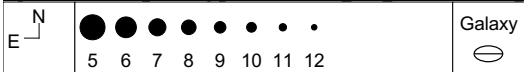
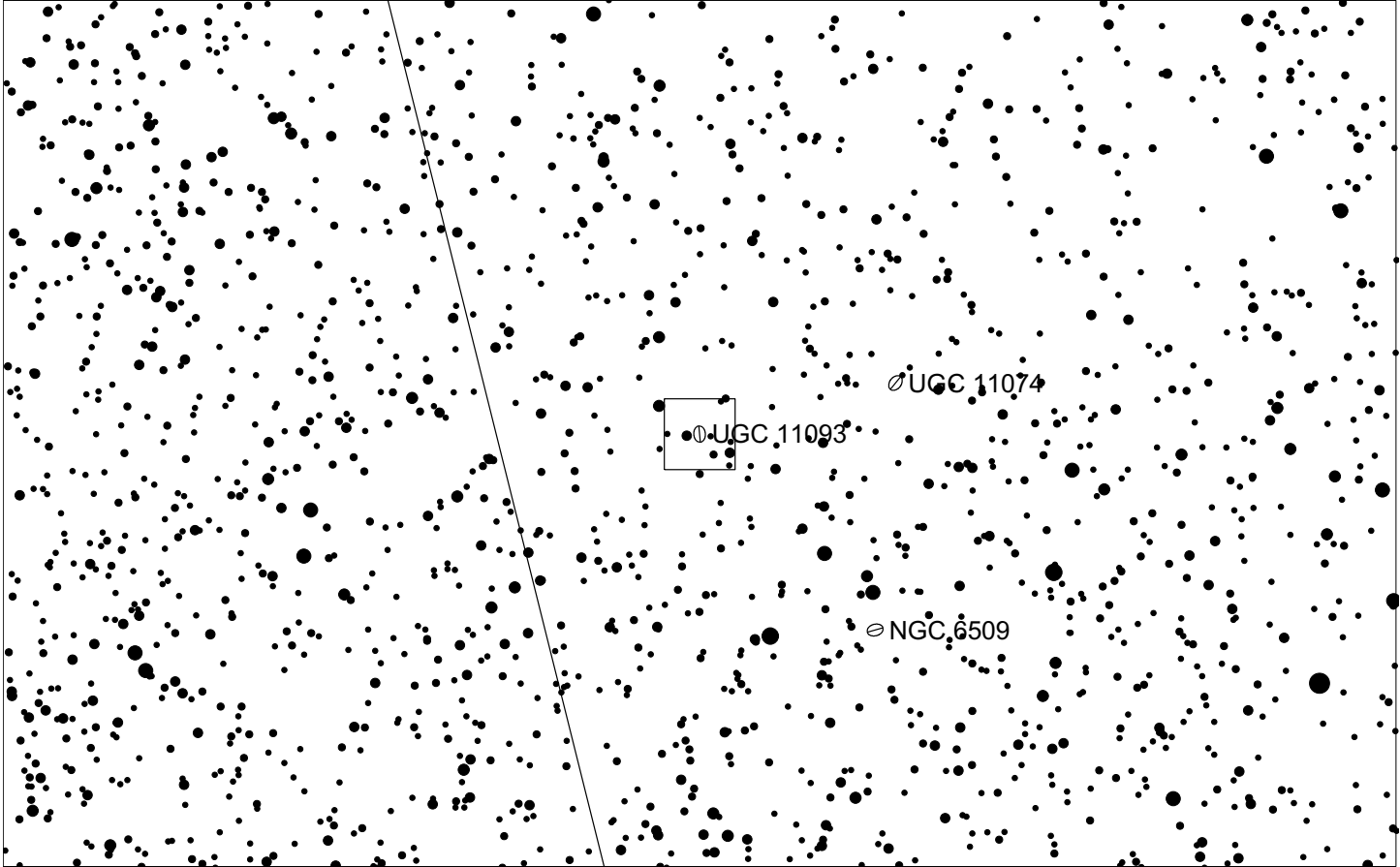
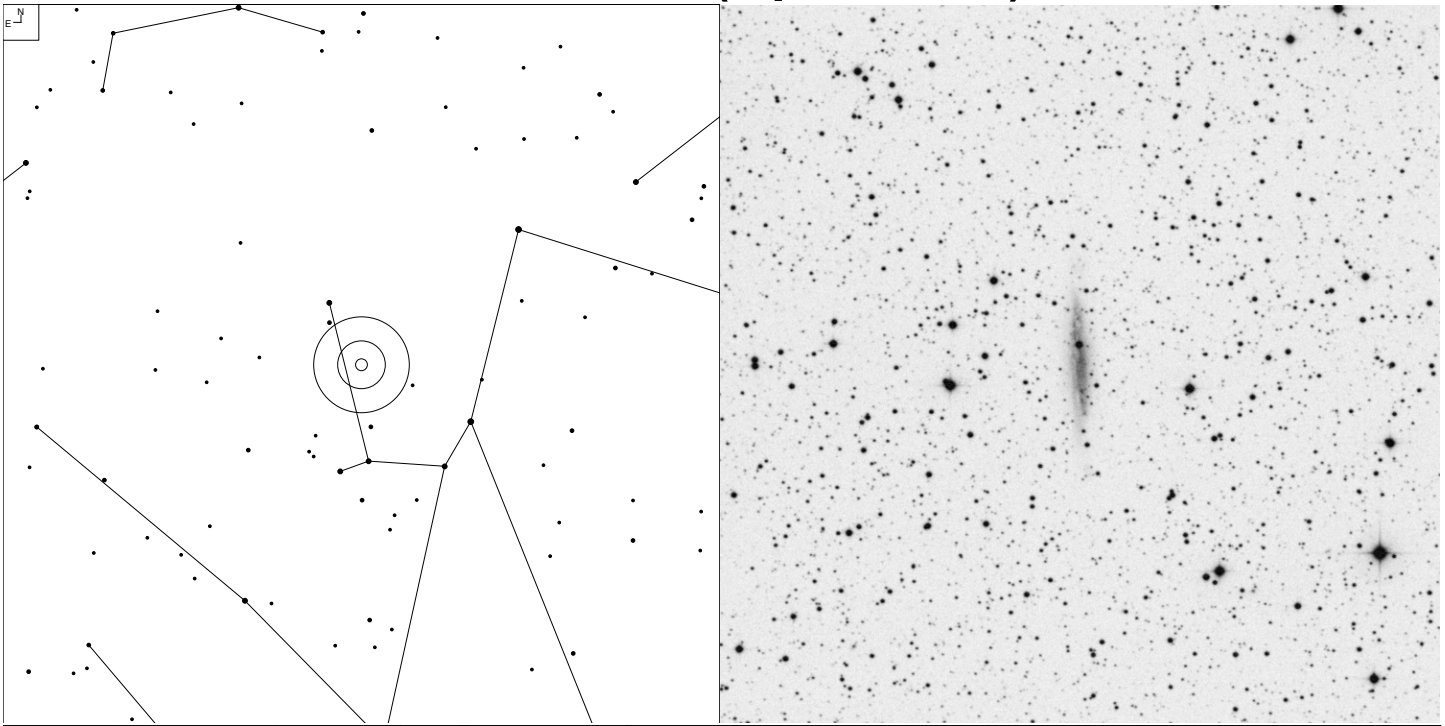
Name	RA	Dec	Mag	Size	Urano
UGC 10288	16h 14m 25.2s	-00°12'24"	14.2b	4.8 x 0.5'	107R

UGC 10738 (Ophiuchus)



Name	RA	Dec	Mag	Size	Urano
UGC 10738	17h 11m 04.8s	+05°51'08"	15.1p	1.7 x 0.2'	87L

UGC 11093 (Ophiuchus)



Name	RA	Dec	Mag	Size	Urano
UGC 11093	18h 01m 51.7s	+06°58'00"	13.7p	3.1 x 0.5'	86L

Additional Resources

Amateur and Journal Articles

Karachentsev, I.D., Karachentseva, V.E., and Parnovsky, S.L. "Flat Galaxy Catalogue" *Astronomische Nachrichten*. Vol. 314, No. 3, 1993, pp 97-222

Karachentsev, I.D., Karachentseva, V.E., et al. "The Revised Flat Galaxy Catalogue" *Bull. Spec. Astrophys. Obs.* Vol. 47, 1999, pp 5-185

Kautsch, Stefan J. "The Nature of Flat Galaxies" *Astronomical Institute at Basel, Venusstrasse 7, CH-4102 Binningen, Switzerland*

Lamperti, Al. "Observing Flat Galaxies in the Herschel Catalogue" *The Deep Sky Observer*. Vol. 149, 2009, pp 19-21

Steinicke, Wolfgang. "Superthin Galaxies: Objects Sharp Like a Razor Blade". *The Deep Sky Observer*. Vol. 125, 2001, pp 24-28

Books

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Eicher, David J. *Galaxies and the Universe*. Milwaukee, WI: Kalmbach Publishing Co., 1992

Harrington, Philip S. *Cosmic Challenge: The Ultimate Observing List for Amateurs*, Cambridge: Cambridge University Press, 2010

Kepple, George R. and Sanner, Glen W. *The Night Sky Observer's Guide, Vol. 1 Autumn & Winter*. Richmond, VA: Willmann-Bell, 1998

Kepple, George R. and Sanner, Glen W. *The Night Sky Observer's Guide, Vol. 2 Spring & Summer*. Richmond, VA: Willmann-Bell, 1998

Luginbuhl, Christian B. and Skiff, Brian A. *Observing Handbook and Catalogue of Deep-Sky Objects*. New York: Cambridge University Press, 1989

Steinicke, Wolfgang and Jakiel, Richard. *Galaxies and How to Observe Them*. New York: Springer Publishing Company, 2007

Stoyan, Ronald and Schurig, Stephan. *interstellarum Deep Sky Atlas*. Cambridge, MA: Cambridge University Press, 2015

Stoyan, Ronald and Glahn, Uwe. *interstellarum Deep Sky Guide*. Cambridge, MA: Cambridge University Press, 2018

Webb Society. *Webb Society Deep-Sky Observer's Handbook, Volume 4: Galaxies*. Edited by Kenneth Glyn Jones. Hillside, NJ: Enslow Publishers Hillside, 1982

Websites

www.deepskyforum.com - The premier Deep Sky forum where advanced deep sky observers converge and discuss various aspects of deep sky observing.

www.cloudynights.com – Great resource for like-minded amateurs discussing most aspects of the hobby.

www.astronomy-mall.com/Adventures.In.Deep.Space/ - Great source of observing projects for all skill levels.

nedwww.ipac.caltech.edu/ - NASA-IPAC Extragalactic Database – NED

archive.stsci.edu/cgi-bin/dss_form - The STScI Digitized Sky Survey

skyserver.sdss3.org/dr8/en/tools/chart/chart.asp - SkyServer DR8 Tools for Visual Exploration (SDSS)

www.galaxyzoo.com – Galaxy Zoo

Sources of Charts and Images

Charts by *Megastar version 5* Willmann-Bell Richmond, VA

DSS images (Digital Sky Survey) archive.stsci.edu/dss/acknowledging.html

Revision History

Date	Revision
March 31, 2010	New document
April 10, 2010	Corrected the size of italicized objects. They were actually in arc-seconds. I've corrected them with size from MegaStar v.5 and in arc-minutes to be consistent. So all sizes are in arc-minutes.
April 17, 2010	Correct both finder charts for UGC 9138 Correct finder chart for NGC 5073
February 22, 2012	Page 121 – corrected designation of NGC 4171 – should be NGC 4173 Page 124 – Corrected designation of NGC 4338 to IC 3247 as MegaStar listed it incorrectly. Page 139 – Corrected title from IC 7607 to UGC 7607. Corrected Declination, inadvertently carried over the Dec from the previous page.
August 31, 2012	Enhanced magnitude scaling of finder charts.
March 18, 2013	Enhanced finder charts.
March 26, 2013	<ul style="list-style-type: none"> • Very minor enhancements <ul style="list-style-type: none"> ○ Enhanced TOC ○ Moved the index to the beginning ○ Enhanced recommended reading section
April 12, 2013	<ul style="list-style-type: none"> • Added front cover
April 24, 2014	<ul style="list-style-type: none"> • Corrected naked eye finder chart for NGC 3365
Sept 29, 2015	<ul style="list-style-type: none"> • Enhanced lines in all charts as the lines don't print out well in Lulu print.
March 2024	<ul style="list-style-type: none"> • Minor edits. No material changes. • Added a few more resources under Additional Resources
April 2024	<ul style="list-style-type: none"> • Few minor corrections
May 2024	<ul style="list-style-type: none"> • Added a brief intro section (page 7-8)