# The Rose Catalogue of Compact Galaxies

Alvin Huey FaintFuzzies.com

# The Rose Catalogue of Compact Galaxies

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Updated: March 2024

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Hickson Group Observer's Guide, Second edition The Abell Planetary Observer's Guide, Second edition Observing the Arp Peculiar Galaxies, Revised edition

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Herschel Objects – Parts I, II, and III Selected Small Galaxy Groups Galaxy Trios and Triple Systems Globular Clusters – North of -50°

Planetary Nebulae and Supernovae Remnants

The Local Group

Flat Galaxies

**Abell Galaxy Clusters** 

Voronstov-Velyaminov Catalogue - Part I and II

Rose Catalogue of Compact Galaxies

Variable Galaxies

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: Rose 7 - Hubble Space Telescope

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#### What the Heck is the Rose Catalogue?

It is basically a list of Compact Galaxy Groups studied by Dr. James A. Rose back in his late grad school or young doctoral days back in the 70s.

In 1976, Dr. James A. Rose, submitted a paper titled "A Survey of Compact Groups of Galaxies" to the Astrophysical Journal. It was accepted for publication on 1977. This paper discusses the distribution of compact groups of galaxies on a pre-determined number of POSS plates and Yale-Columbia southern plates. Dr. Rose selected 69 POSS plates with fields with galactic latitudes of greater or equal to 55 degrees to avoid galactic absorption and to minimize the number of stars.

#### His selection criteria are:

- 1. Aggregate of three or more galaxies occupies an area of A arcmin<sup>2</sup>.  $\sigma$  is the average number of field galaxies per arcmin<sup>2</sup> with the blue magnitude  $\geq$  than the faintest galaxy enclosed in the area.
- 2. All members must be at least magnitude 17.5.
- 3.  $A\sigma < 0.0035$

He found 170 compact trios, 26 definite and 7 probable quartets and 2 compact quintets. Thus, this Rose Catalogue consists of the 26 definite and 7 probable quartets as discussed in his paper in Astrophysical Journal in 1977. All of his objects are in the spring sky.

The listed magnitudes given are from CGCG if the galaxy is brighter than magnitude 15.7. For galaxies fainter than 15.7, rough eye estimates were given using the brightest and faintest in VV 172 as reference galaxies. They are magnitude 17.0 and 17.5 respectively.

The Rose compact galaxy groups are considered to be more compact than the Hickson and Shakhbazian groups.

How did I get excited about this List? Excellent observers from Texas, Jimi Lowrey and Barbara Wilson, showed me Rose's paper during the Texas Star Party 2009. We got totally excited about this list and started with Rose 2 with Jimi's 48" f/4 reflector. We are total nutcases when it comes to really dim stuff. So, I recommend that the observer use an 18" or larger scope to tackle this List under dark and steady skies.

I successfully observed all of the northern Rose objects with a 22" scope under NELM 6.5 or better skies. Some of them require steady skies, so some of the really tight groups can be "busted up". But there are a few that require very large apertures to resolve the individual galaxies, such as Rose 2, 27, 28, 30, 31 and 33 to list some examples.

Good Luck!

## Rose Compact Galaxies Catalogue Northern Compact Groups

Page	Rose	RA	Dec	Const	Mag	Size
10	1	10 48 09	+23 56 59	Lmi	16.5, 16.5, 17.0, 17.5	1.35 x 0.22'
12	2	10 54 33	+12 29 01	Leo	17.5, 17.5, 17.5, 17.5	0.40 x 0.20'
14	3	11 02 37	+17 05 57	Leo	17.5, 17.5, 17.5, 17.5	1.20 x 0.40'
16	4	11 18 11	+30 24 27	Uma	15.2, 15.5, 16.5, 17.0	1.80 x 0.35'
18	5	11 48 07	+37 26 55	Uma	16.0, 16.5, 17.5, 17.5	0.90 x 0.22'
20	6	11 48 26	+25 46 00	Leo	16.5, 17.0, 17.0, 17.0	0.50 x 0.22'
22	7	11 48 28	+12 43 43	Leo	14.7, 15.3, 15.3, 15.3	3.10 x 1.45'
24	8	12 04 43	+31 10 39	Uma	14.0, 15.2, 16.5, 16.5	1.95 x 0.40'
26	9	12 08 02	+09 46 23	Vir	16.0, 16.0, 16.5, 16.5	1.95 x 0.80'
28	10	12 12 25	+29 10 28	Com	12.9, 13.7, 14.2, 14.3	3.80 x 2.45'
30	11	12 12 53	+22 35 25	Com	17.0, 17.0, 17.5, 17.5	0.45 x 0.30'
32	12	13 24 44	+32 32 28	CVn	15.3, 16.0, 16.5, 17.0	3.00 x 0.35'
34	13	13 28 30	+15 50 27	Com	17.0, 17.0, 17.5, 17.5	0.22 x 0.11'
36	14	13 41 12	+01 46 47	Vir	16.0, 17.0, 17.0, 17.5	0.50 x 0.11'
38	15	13 48 09	+07 23 30	Boo	15.0, 15.0, 16.0, 17.0	1.90 x 0.30'
40	16	13 56 30	+28 31 25	CVn	15.4, 15.5, 15.6, 15.7	6.70 x 0.90'
42	17	14 11 54	+24 56 00	Boo	16.0, 16.5, 17.5, 17.5	1.85 x 0.35'
44	18	14 13 07	+08 37 36	Boo	15.5, 16.0, 16.0, 17.0	1.10 x 0.40'
46	19	14 13 44	+08 13 12	Boo	16.0, 16.0, 17.0, 17.5	1.10 x 0.15'
48	20	14 17 37	+08 10 28	Воо	16.0, 17.0, 17.0, 17.5	0.65 x 0.50'
50	21	14 35 02	+26 32 16	Boo	17.0, 17.0, 17.0, 17.5	1.00 x 0.60'
52	22	14 49 57	+11 00 20	Boo	16.5, 16.5, 17.0, 17.5	2.70 x 0.11'
54	23	14 50 49	+10 07 03	Воо	16.5, 17.0, 17.0, 17.0	1.35 x 0.55'
56	24	15 05 07	+28 48 55	Boo	17.0, 17.0, 17.5, 17.5	1.35 x 0.22'
58	25	15 08 05	+34 23 19	Воо	17.0, 17.0, 17.5, 17.5	0.45 x 0.11'
60	26	15 12 17	+27 49 49	Boo	16.5, 17.0, 17.0, 17.5	1.80 x 0.80'
62	27	11 29 16	+20 35 03	Leo	14.0, 16.2, 17.0,18.5*	$0.9 \times 0.2^{1}$
64	28	12 06 46	+24 36 21	Com	16.0 <sup>2</sup>	$0.5 \times 0.4^{1}$
66	29	12 18 41	+11 43 53	Vir	15.0 – 17.6 <sup>2</sup>	1.4 x 0.5 <sup>'1</sup>
68	30	13 16 53	+12 32 54	Vir	14.6 <sup>1</sup>	0.6 x 0.6 <sup>'1</sup>
70	31	13 17 29	-03 10 48	Vir	15.0 – 18.8 <sup>2</sup>	0.7 x 0.3 <sup>1</sup>
72	32	13 44 25	+20 24 42	Boo	$15.0 - 18.0^2$	1.3 x 0.4 <sup>'1</sup>
74	33	14 10 56	+15 12 33	Воо	15.9, 16.2, 16.2, 17.4 <sup>2</sup>	0.7 x 0.5 <sup>1</sup>

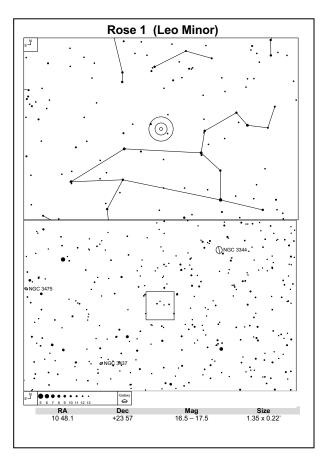
#### **Southern Compact Groups**

					-	
Page	Rose	RA	Dec	Const	Mag	Size
78	34	00 21 22.1	-48 38 24	Phe	14.2, 14.4, 15.2, 15.6	2.90 x 2.40'
80	35	03 03 16.3	-50 29 42	Hor	16.0, 16.5, 17.0, 17.5	2.40 x 0.28'
82	36	03 06 18.7	-42 40 45	Eri	17.6 – 17.6 <sup>2</sup>	1.0 x 0.5 <sup>1</sup>
84	37	03 30 37.0	-50 19 27	Hor	13.7, 15.5, 17.1 <sup>2</sup> , 17.8 <sup>2</sup>	2.8 x 1.4 <sup>'1</sup>
86	38	20 00 59.2	-47 04 11	Tel	13.7, 14.8, 15.2, 16.4	8.55 x 1.65'

<sup>1 =</sup> values from MegaStar and size are estimated based on DSS images overlaid in MegaStar

<sup>2 =</sup> values from NED

#### How to Use the Atlas



#### Left page:

The top panel contains the naked eye star chart with the Telrad<sup>TM</sup> superimposed on the center of the Rose Compact Group. 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. Pay attention to the magnitude scale on the bottom left. The field of the DSS image is superimposed on the finder chart.

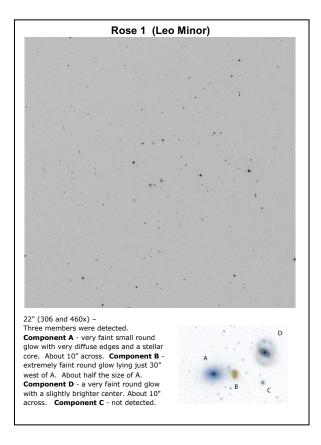
A table is provided below giving the basic information on the Rose Galaxy Group. The coordinates are provided along with the **Mag**nitude range of the 4 galaxies of the quartet and **Size.** The Mag and Size are provided by J.A. Rose's paper.

#### Right page:

A 30 x 30' Digital Sky Survey (DSS) field image and a labeled close-up of the Rose Compact group from the Sloan Digital Sky Survey (SDSS), except Rose 33-38.

Observing notes using a 22" and/or a 48" reflector are provided for reference. All 22" observations were done under NELM 6.5 skies and average seeing. The conditions with the 48" are provided next to each observation. Note: I have not observe any of the southern Rose galaxy groups.

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

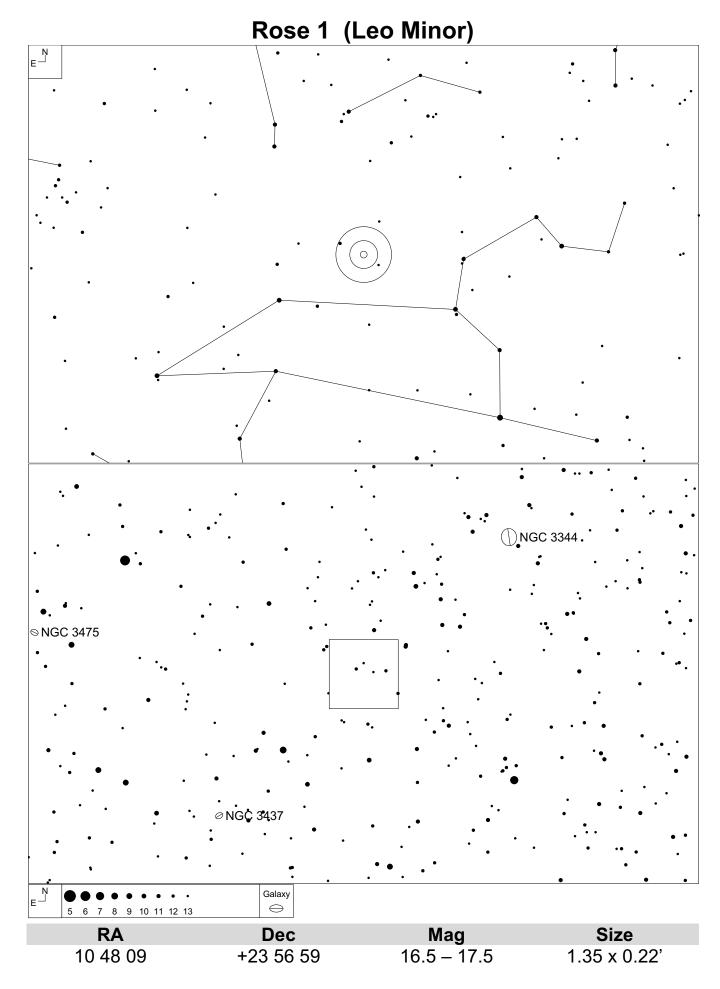


Any comments or to share any observations, send them to Alvin. Huey@FaintFuzzies.com.

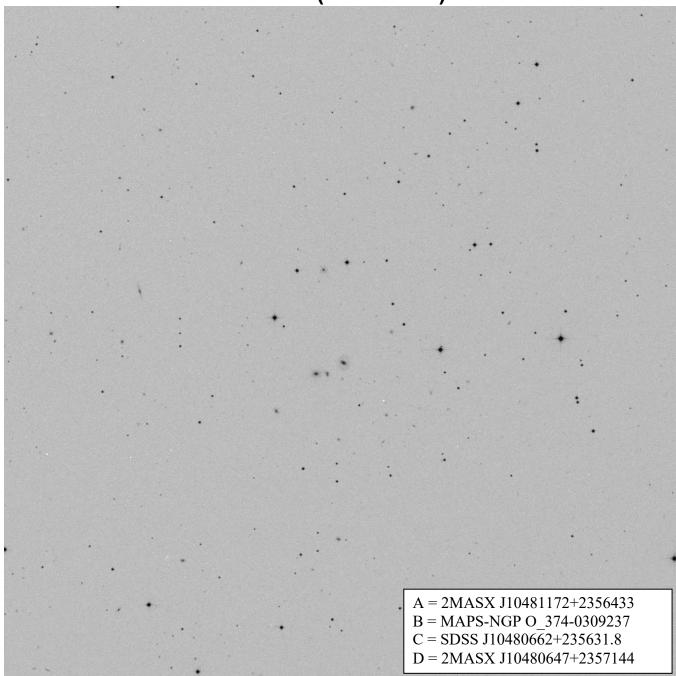
Any feedback or suggestions would be greatly appreciated. I hope to keep this resource updated and made available to all of you, the deep sky observer.

### The Atlas of the Rose Compact Groups of Galaxies

Northern Compact Groups



#### Rose 1 (Leo Minor)



#### 22" (306 and 460x)

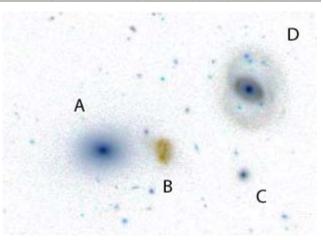
Three members were detected.

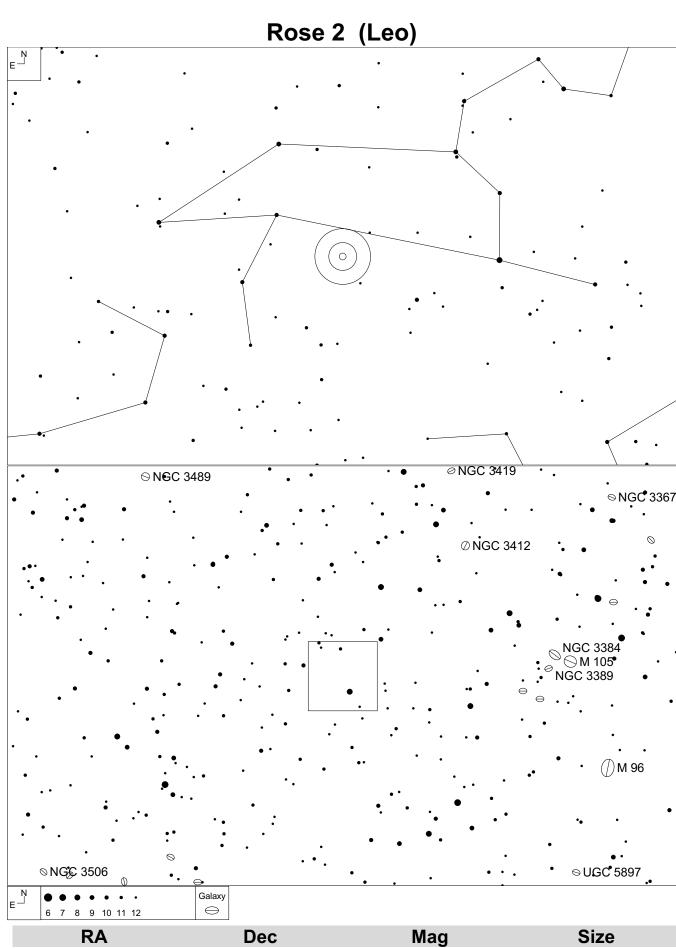
**Component A** – very faint small round glow with very diffuse edges and a stellar core. About 10" across.

**Component B** – extremely faint round glow lying just 30" west of A. About half the size of A.

**Component C** – not detected.

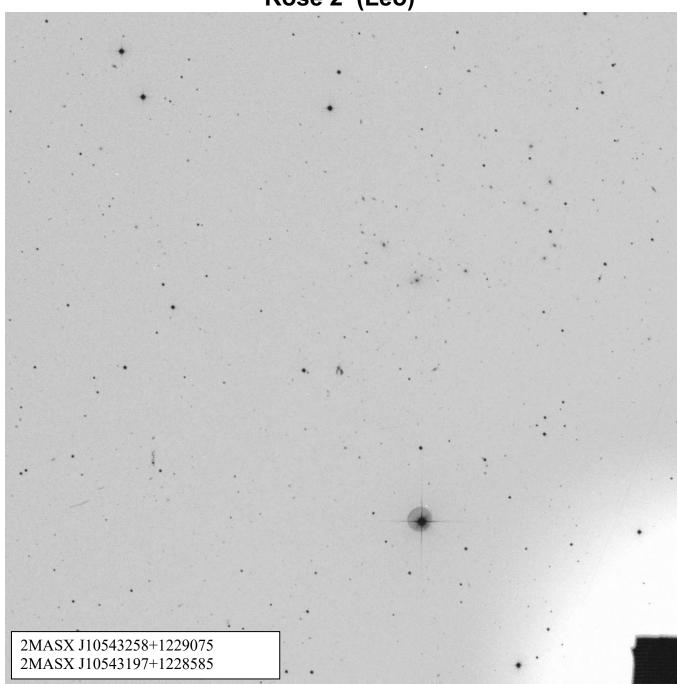
**Component D** – a very faint round glow with a slightly brighter center. About 10" across.







#### Rose 2 (Leo)

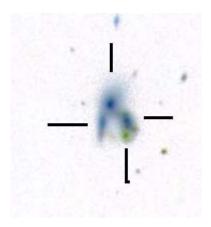


#### 22" (306 and 460x)

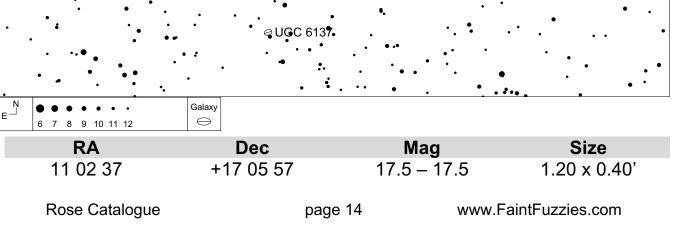
This group was totally unresolved. Extremely faint 2:1 elongated even surface brightness patch, PA = 30 degrees.

#### 48" (610x) (NELM 7.5)

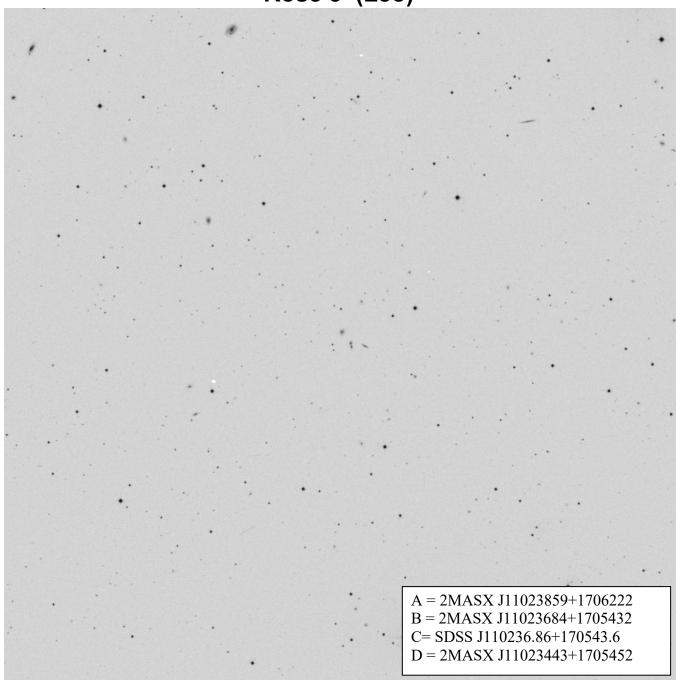
All four galaxies resolved. All four visible with direct vision. Three merged distinct galaxies on one side of the "V", with a much fainter longer galaxy on the other side of the "V".



Rose 3 (Leo) ⊖NGC 3457<sub>N</sub> • SNGC 3455 ⊘UGC 6112



#### Rose 3 (Leo)

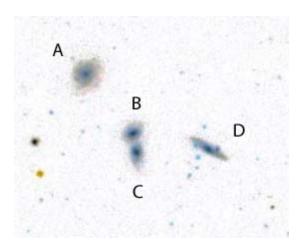


#### 22" (306 and 458x)

Three galaxies detected with one unresolved double galaxy (B and C).

**Component A** – extremely faint round glow. **Component B/C** -even fainter than "A" and round.

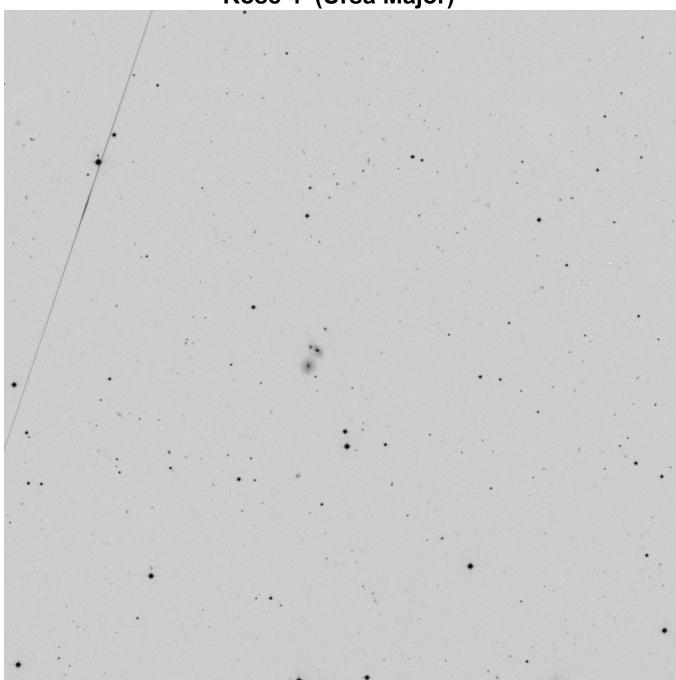
**Component D** is the brightest of all 4 members. Very faint round glow. A pair of  $16^{th}$  magnitude stars lies due east of B/C. All are less than 10'' across.



Rose 4 (Ursa Major) 0 UGC 6276 ⊖ NGC 3687 ⊖ CGCG 156-39 ⊖ CGCG 156-41 Galaxy 7 8 9 10 11 12



#### Rose 4 (Ursa Major)



#### 22" (306 and 460x)

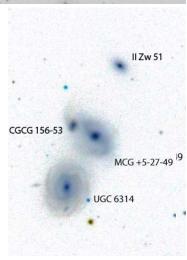
Three galaxies seen with MCG +5-27-49 being the brightest of the lot.

**CGCG 156-53** – very faint, very small round glow with a stellar core. Less than 10" across.

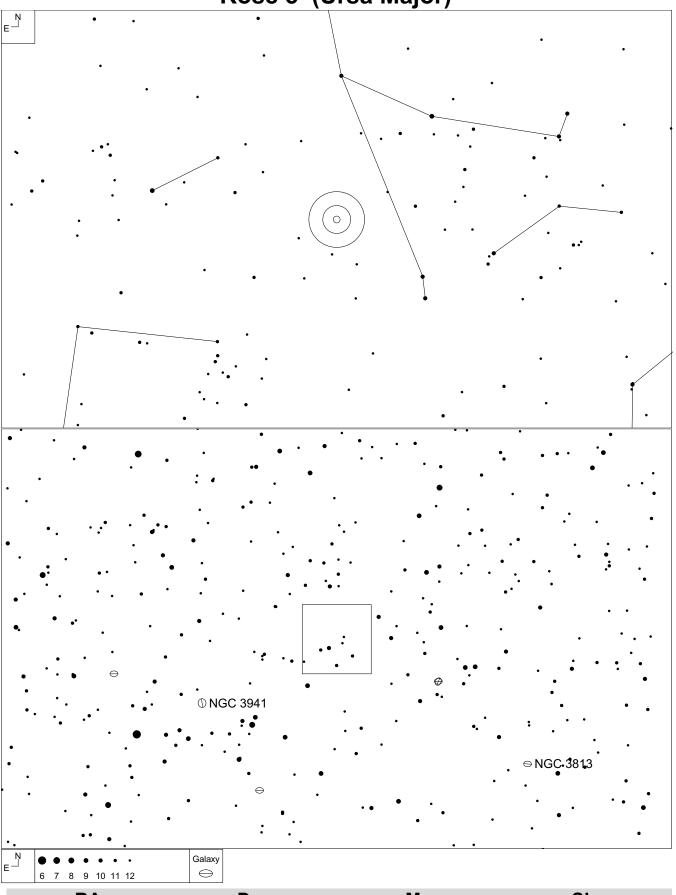
**MCG+5-27-49** – considerably faint, round with much brighter center. About 20" across.

**UGC 6314** – considerably faint, round, much brighter center. 30' across.

I missed II Zw 51.

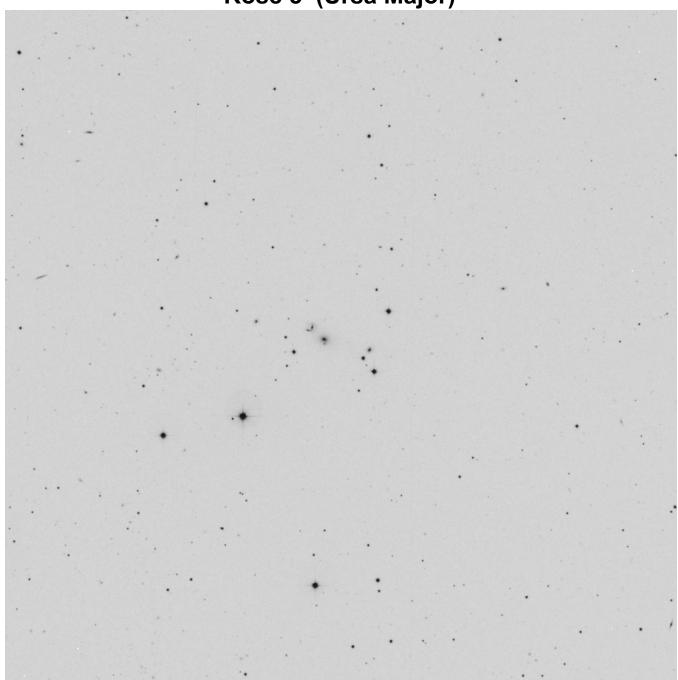


Rose 5 (Ursa Major)





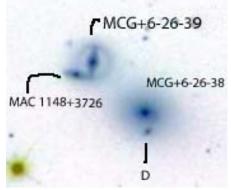
Rose 5 (Ursa Major)



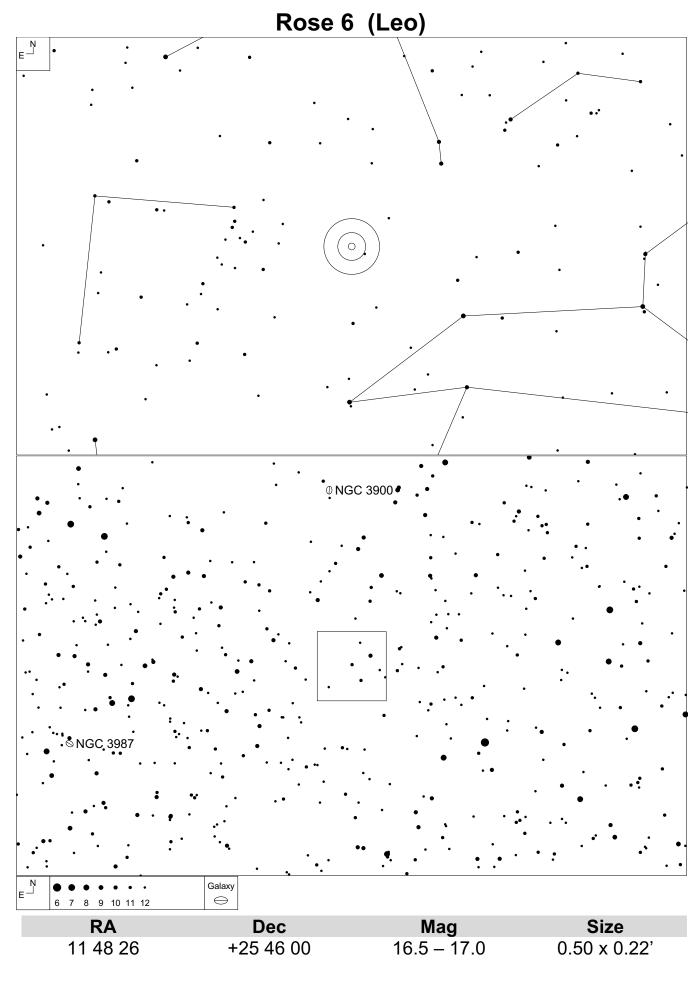
#### 22" (306 and 460x)

All four members picked off, but one is very tough. **MCG+6-26-39** and **MAC 1148+3726** were barely resolved as two separate glows roughly 90 degrees apart. Each is 3:2 elongated and less and 10" across. PA of MCG +6-26-39 is 0° and PA of MAC 1148+3726 is 90°.

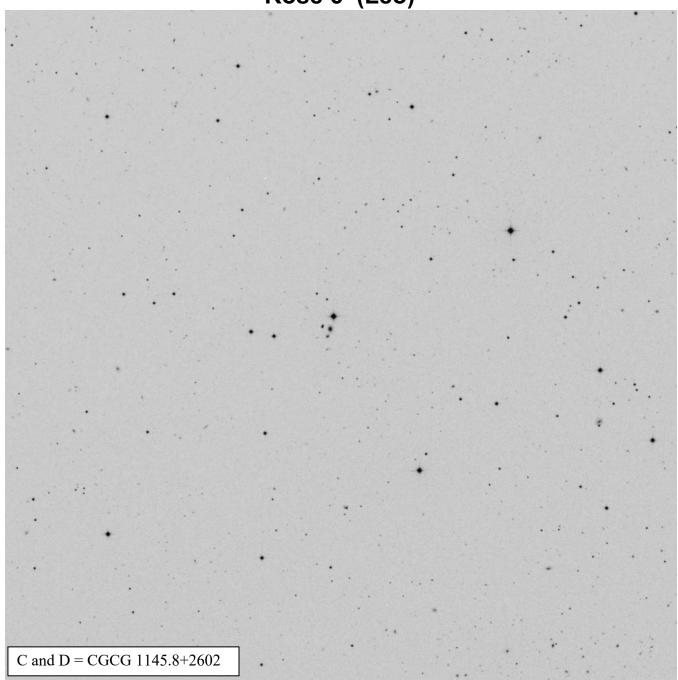
**MCG+6-26-38** – considerably bright round glow with a brighter center. About 20" across.



**Component D** lies just 10" south from the center of MCG +6-26-38 and is an extremely faint very small round glow. Less than 5" across.



Rose 6 (Leo)

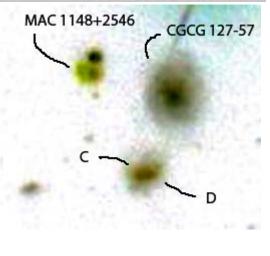


#### 22" (306 and 460x)

Three galaxies seen.

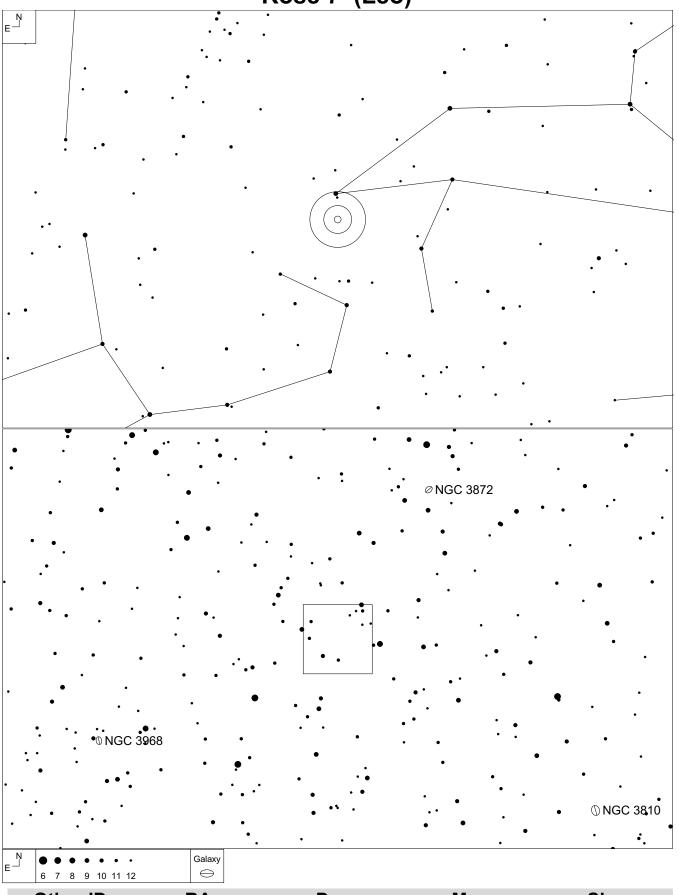
**MAC 1148+2546** is a very faint, very small round glow with a very faint star just off the NW edge. Less than 10" across.

**CGCG 127-57** is considerably faint round glow with a slightly brighter center. About 10" across. The double galaxy, **Component C/D** is very faint, round with a stellar core, which is most likely the core of C. It lies just 20" south of CGCG 127-57.



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Rose 7 (Leo)



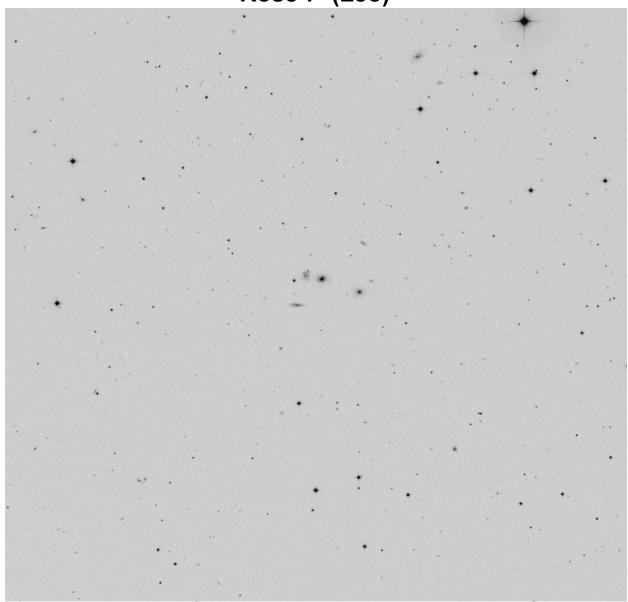
Other ID	RA	Dec	Mag	Size
Hickson 59	11 48 28	+12 43 43	14.7 – 15.3	3.10 x 1.45'

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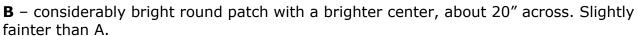
#### Rose 7 (Leo)



#### 22" (306 and 460x)

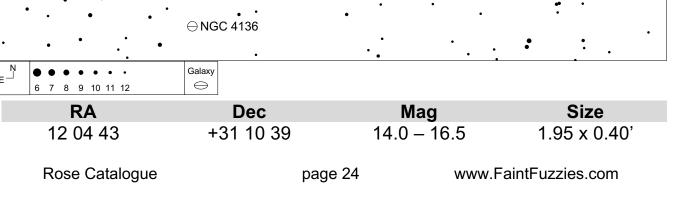
**Hickson 59**. Since I did not detect component D in the past, I decided to try again as this is a pretty good night. I don't know why Rose selected this group as Hickson listed this as a quintet, not a quartet. Anyhow, all four members were seen forming an "L" shaped asterism. I'll follow Hickson's component lettering scheme while describing this group. IC 737

**A** - considerably bright round glow with a brighter center. 25" across. IC 737

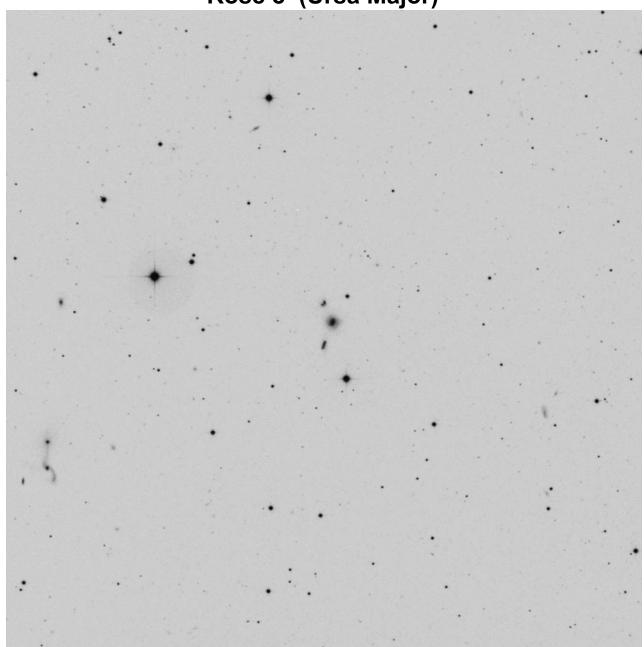


- ${\bf C}$  considerably faint even surface brightness 3:1 elongated patch about 30" long. PA = 90°.
- **D** very faint round glow. About 15" across. A 13.6 mag star lies 40" east MCG+2-30-40.

Rose 8 (Ursa Major) ⊖NGC 4062 Ø NGC 4150 ⊖ NGC 4136 Galaxy  $\ominus$ 8 9 10 11 12



#### Rose 8 (Ursa Major)



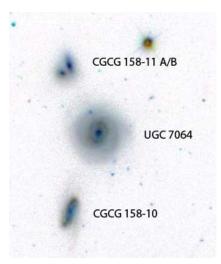
#### 22" (306 and 460x)

Three galaxies easily detected in a rough N-S line about 2.5' long.

The northern most member, **CGCG 158-11A/B** is actually a unresolved double galaxy. They are considerably faint even surface brightness round glow. About 15" across.

The middle galaxy, **UGC 7064**, is a considerably bright round patch with a brighter center. Pretty diffuse edges. About 30" across.

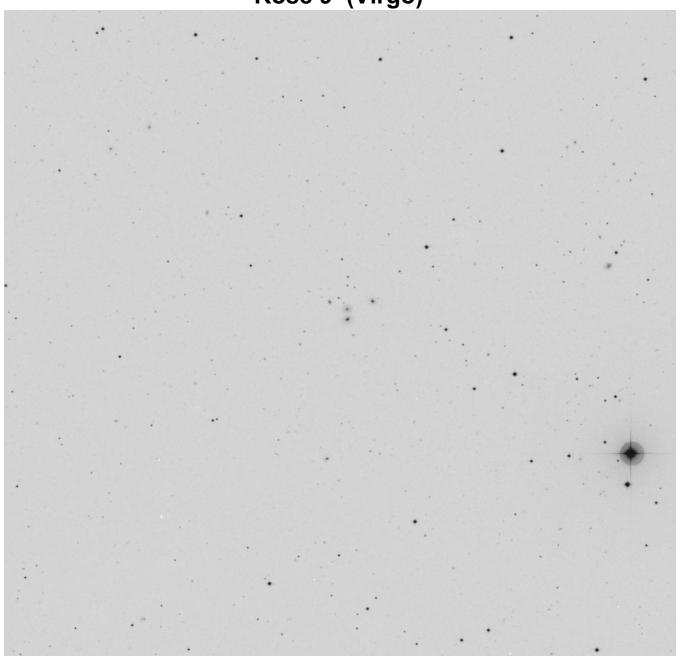
The southern galaxy, **CGCG 158-10**, is a considerably bright 3:1 elongated glow with well-defined edges. PA =  $160^{\circ}$  and about 30'' long. It has a fairly high surface brightness for a galaxy.



Rose 9 (Virgo) **NGC 4178** Galaxy  $\bigcirc$ 

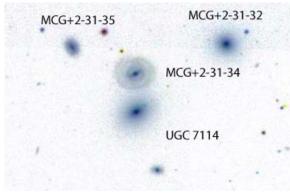


#### Rose 9 (Virgo)



#### 22" (306 and 460x)

All four galaxies detected within a 2.3' circle resembling a squat letter "T". MCG+2-31-32 is the brightest and western most member. Faint round glow with a much brighter center. About 10" across. UGC 7114 is slightly fainter and slightly larger than MCG+2-31-32. Pretty diffuse edges and slowly brighter center. About 15" across. This is the southern galaxy of the group.



MCG+2-31-35 is the eastern most member and is very faint round glow. Less than 10'' across. MCG+2-31-34 is the center galaxy and is a very faint round glow and less than 10'' across. A faint  $16^{th}$  or  $17^{th}$  magnitude star lies 30'' WNW of MCG+2-31-35.

Rose 10 (Coma Berenices) Ø NGC 4150 ⊖NGC 4136 **○NGC 4314** ⊘NGC 4274 NGC 4245 NGC 4283 HNGC 4278 Ø NGC **₽**185

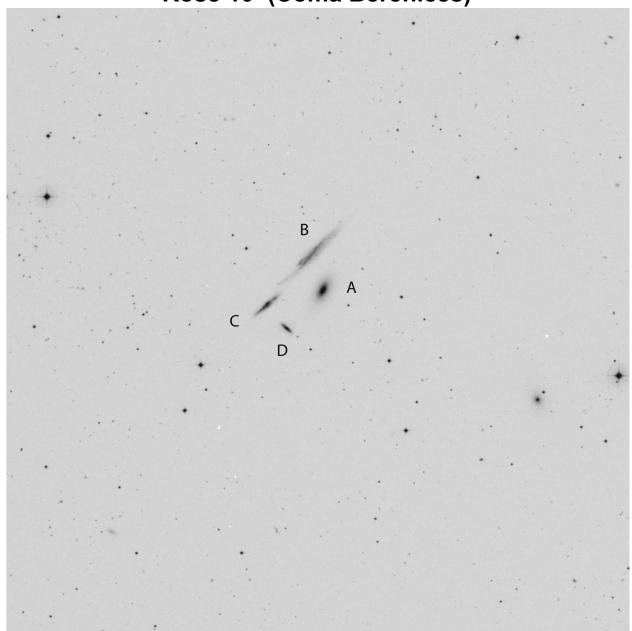


7 8 9 10 11 12

⊖ NGC 4251

Galaxy

#### Rose 10 (Coma Berenices)



All four galaxies are easily visible with one low surface brightness long streak. The "box" is actually a rectangle with the long side positioned at  $135^{\circ}$  and about 4' long. The short side is about 1.5'. Notes taken from my *Hickson Group Observer's Guide*.

**Component A (NGC 4169)** is very bright. It is elongated (2:1) and its nuclear region is slightly brighter. Estimated size is 2' by 1' and averted vision gives it about 5 to 10" more extension. The position angle is 160°. This is the right corner of the Box.

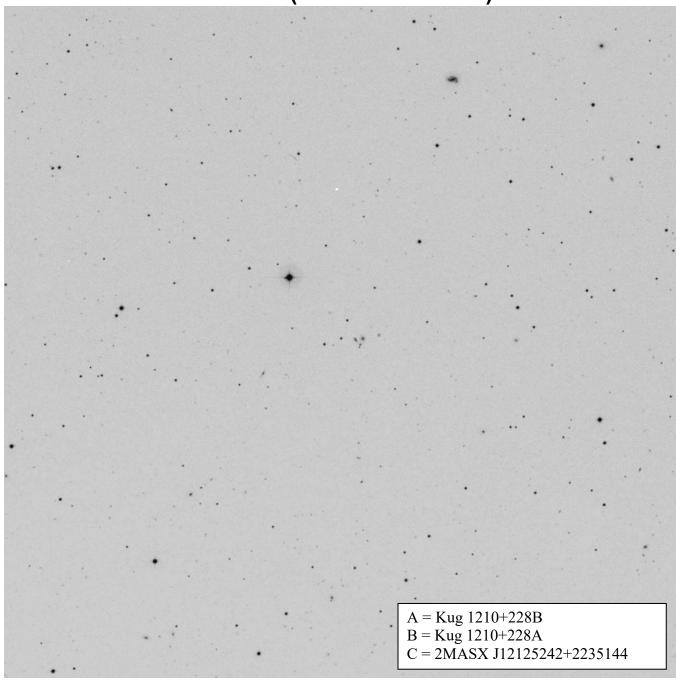
**Component B (NGC 4173)** is bright and very elongated 4:1. This member has the lowest surface brightness of the Group. No nuclear condensation could be seen and its surface brightness is uniform throughout. The estimated size is about 3' long. PA = 140°. This edge on spiral is on the top corner of the Box

**Component C (NGC 4175)** is bright and very elongated 3:1. Significantly brighter center and almost stellar. Estimated size is 2' long its position angle is 140°. This member is on the left corner of the Box

**Component D (NGC 4174)** is bright and elongated 2:1. Uniform brightness with a high surface brightness. I think this may be a Seyfert galaxy. Estimated size is 1' long and PA =  $50^{\circ}$ . Bottom corner of the Box.

Rose 11 (Coma Berenices) **⊚NGC** 4213 **Mag** 17.0 – 17.5 Dec Size 12 12 53 +22 35 25 0.45 x 0.30'

#### Rose 11 (Coma Berenices)

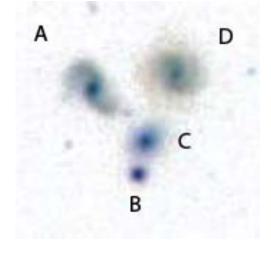


#### 22" (306 and 460x)

Only two galaxies were detected in this very tough and very small quartet. The DSS image shows this as very shallow "Y" shape.

The two (**A** and **D**) detected are at the tips of the "Y". Both are extremely faint, very small round glows. They are about 15-20" apart. About 5" across.

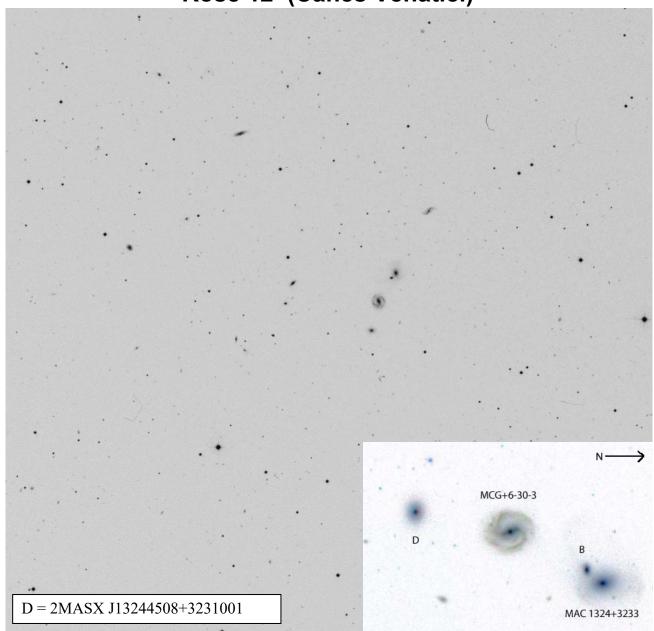
**Components B and C** were not detected.



Rose 12 (Canes Venatici) 9 NGC 5098 Galaxy  $\ominus$ 9 10 11 12 13



#### Rose 12 (Canes Venatici)



#### 22" (306 and 460x)

This group of four galaxies form a chain positioned at 160 degrees PA.

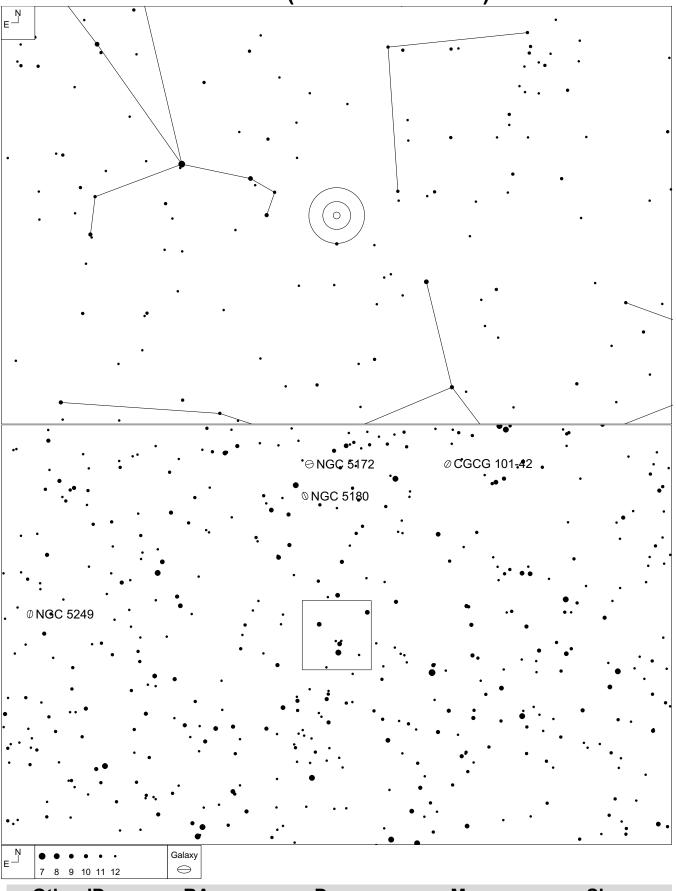
The northern most galaxy, **MAC 1324+3233** is a considerably faint, small round glow with a stellar core. About 15" across.

**Component B** lies just 10-15'' SE of the MAC and is a very faint, every small round glow with a stellar core. Less than 5'' across. Continuing down the chain is

**MCG+6-30-3** lying about 1.3' from the previous galaxy. It is a slightly elongated faint round glow with a stellar core.  $PA = 30^{\circ}$  and about 30" long. Diffuse edges and fairly low surface brightness. Another 1.5' south lies

**Component D**. It is a considerably faint round glow with a brighter center. About 10'' across. A couple nearby galaxies were detected. MAC 1325+3233 lies about 4' east of the group is a considerably faint 2:1 elongated glow. PA =  $150^{\circ}$  and 15'' long. The other nearby, MAC 1324+3236, is a very faint 2:1 elongated even surface brightness glow. PA =  $150^{\circ}$  and 10'' long. Lies 3.3' NNW from the chain.

Rose 13 (Coma Berenices)



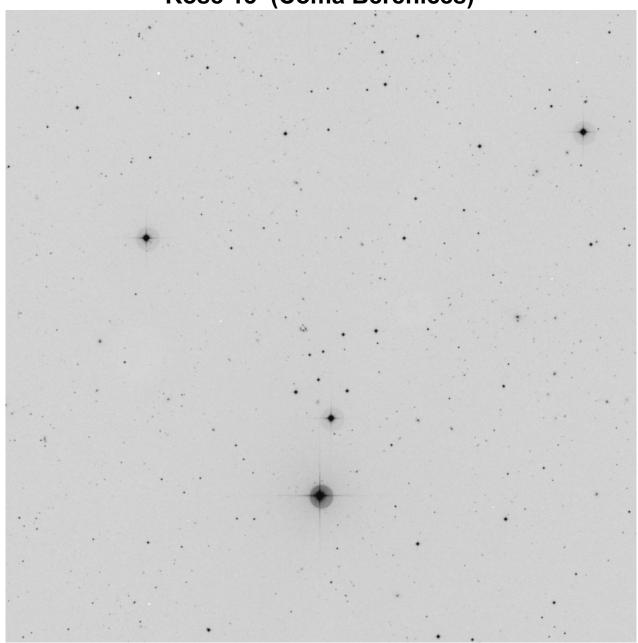
Other ID	RA	Dec	Mag	Size
Shk 19	13 28 30	+15 50 27	17.0 - 17.5	0.22 x 0.11'

Rose Catalogue

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#### Rose 13 (Coma Berenices)



#### 22" (306 and 460x)

**Shakhbazian 19**. This was observed at the Texas Star Party under NELM 7.2 skies. It appears as en extremely faint slightly elongated glow. PA = 90° and less than 10″ across. The star to the north was not detected.

#### 30" (542x)

The glow is 2:1 elongated and the star was detected and brighter than the unresolved glow.

#### 48" (813x) (NELM 7.5)

A, B and C Three distinct nuclei immediately detected.

**D** – a thin glow with a nearly stellar core.

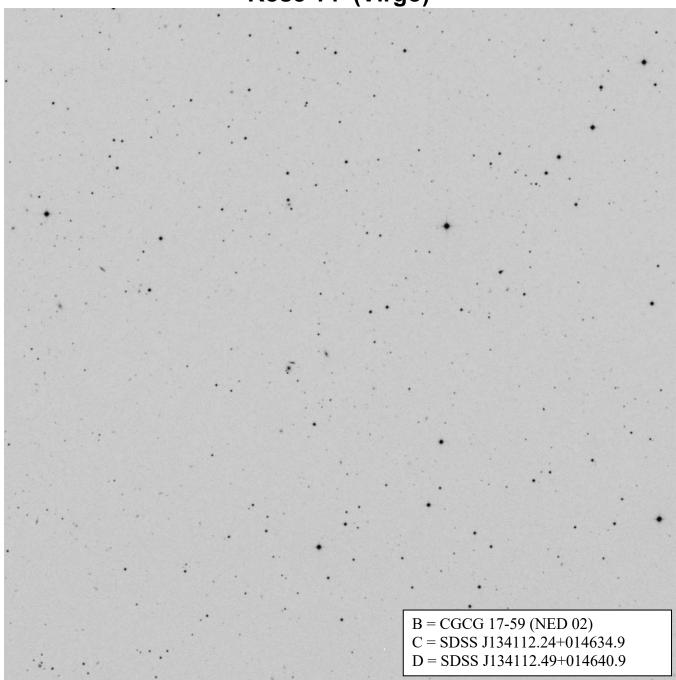
Rose 14 (Virgo) NGC 5227 



9 10 11 12

Galaxy Radio

## Rose 14 (Virgo)



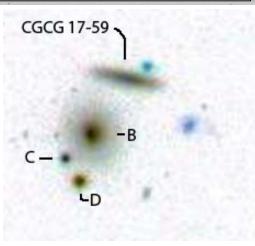
### 22" (306 and 460x)

This quartet has only one labeled galaxy. Only two members were detected and barely resolved.

The northern most galaxy of the tight trio, **CGCG 17-59**, is a very faint 2:1 elongated glow with a PA = 90°. About 10″ long.

Just 20" SSE lies **component B**. Very faint round glow and about 10" across.

**Components C and D** were not detected. Nearby galaxy, MAC 1341+0147, is a 2:1 elongated very faint glow. PA = 20 degrees. It lies 1.6' NWW from CGCG 17-59.



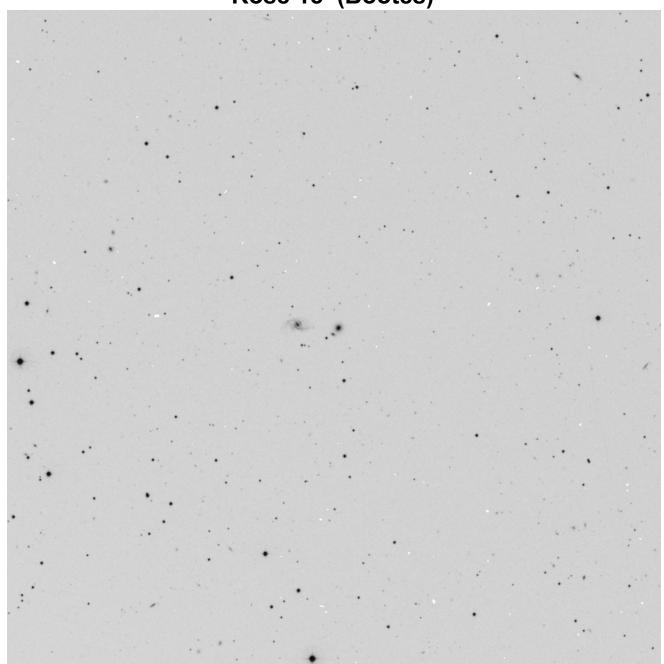
Rose 15 (Bootes) **⋄**NGC 5374 Galaxy



8 9 10 11 12

 $\ominus$ 

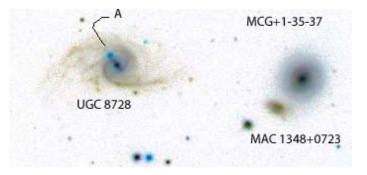
# Rose 15 (Bootes)



### 22" (306 and 460x

This quartet consists of three well resolved galaxies. I'm not sure where the 4<sup>th</sup> member is, but it appears to be merged with UGC 8728.

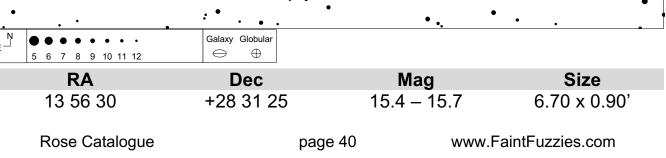
**UGC 8728** is a very faint even low surface brightness galaxy with a tight brighter center. 3:2 elongated, PA = 45° and about 30″ long.



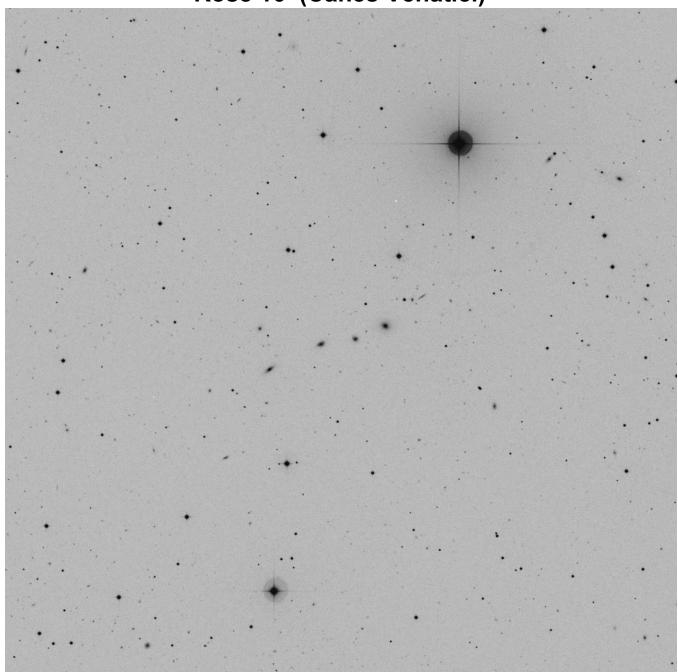
Moving 1.6' roughly east lies **MAC 1348+0723**. Very faint, very small round glow. About 5" across.

Just 25" NW lies **MCG+1-35-37**. This is the brightest of the lot as a considerably faint round glow with a brighter center. About 15" across.

Rose 16 (Canes Venatici) 0 NGC 5375 NGC 5466 Galaxy Globular 8 9 10 11 12

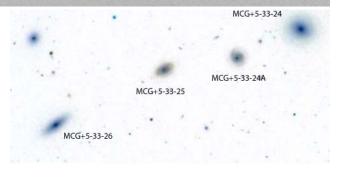


## Rose 16 (Canes Venatici)



### 22" (306 and 460x)

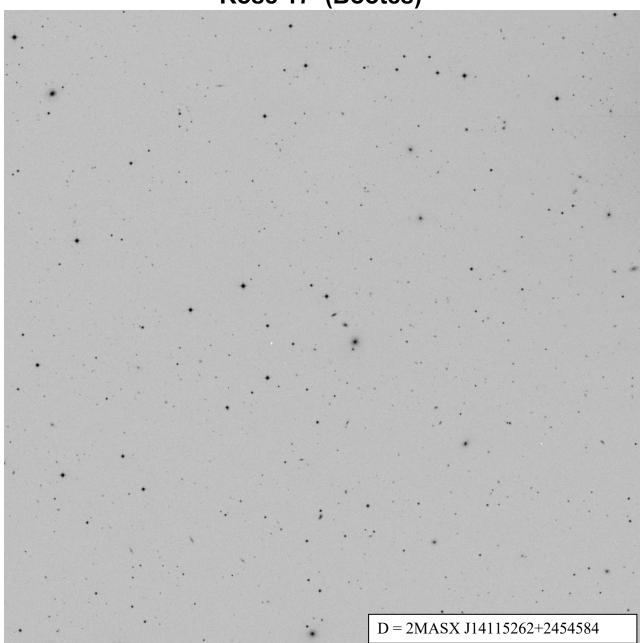
This chain of four roughly equidistant galaxies is about 6' long and PA = 120°. Starting on the west side this time as this is the brightest of the lot. The first galaxy, **MCG+5-33-24**, is a considerably faint round glow of about 20" across.



Next in line is MCG+5-33-24A is a very faint small round glow. About 10" across. MCG+5-33-25 is a considerably faint 3:2 elongated glow. PA = 120° and 15" long. Last galaxy in the chain, MCG+5-33-26, is a considerably faint 2:1 elongated glow. PA = 135° and 20" long.

Rose 17 (Bootes) ⊖NGC 5523 • Galaxy  $\bigcirc$ 8 9 10 11 12 **Mag** 16.0 – 17.5 Dec Size RA 14 11 54 +24 56 00 1.85 x 0.35'

## Rose 17 (Bootes)



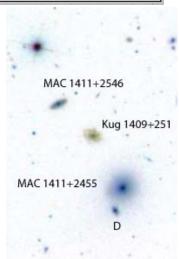
### 22" (306 and 460x)

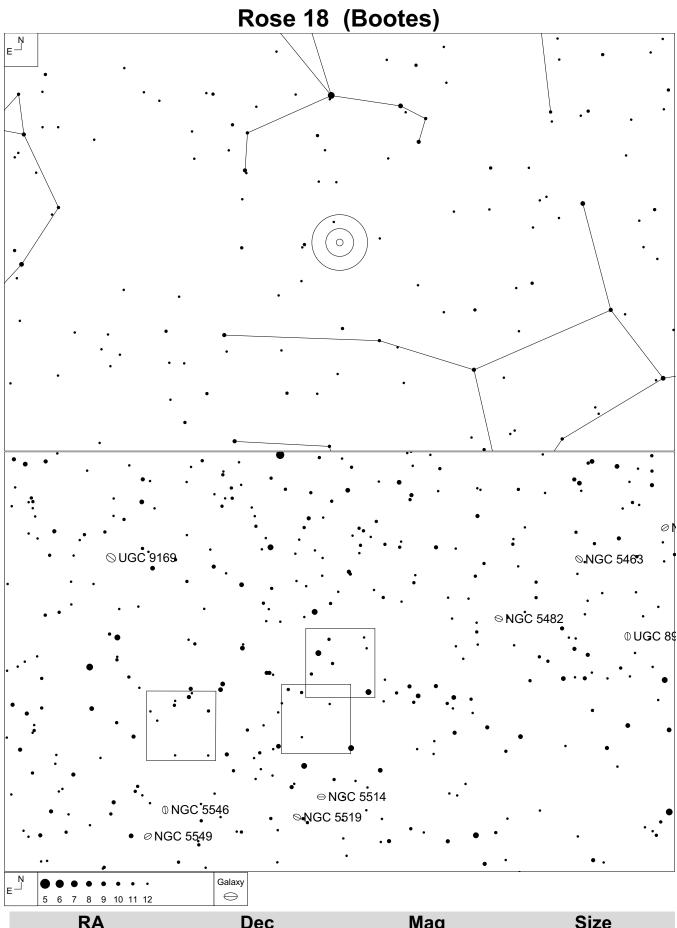
This chain of three equidistant galaxies is followed by a fourth member slightly skewed from the chain from the southern most galaxy. Only three were detected.

Starting with the north member, **MAC 1411+2456**. It is a very faint 3:1 elongated glow with a much brighter stellar core. PA = 100° and 20″ long.

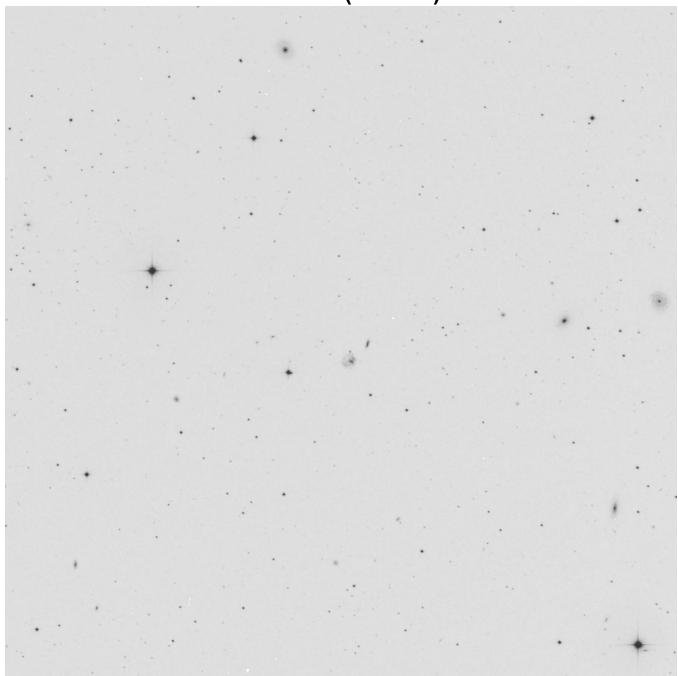
Next is **Kug 1409+251** lying about 45" SW. It is a very faint round even surface brightness glow. It is about 10" across. Last galaxy of the linear chain is

**MAC 1411+2455**. Appears considerably bright round glow with a brighter center. Edges are pretty diffuse. About 20" across. **Component D** was not detected.



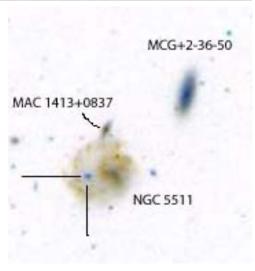


# Rose 18 (Bootes)

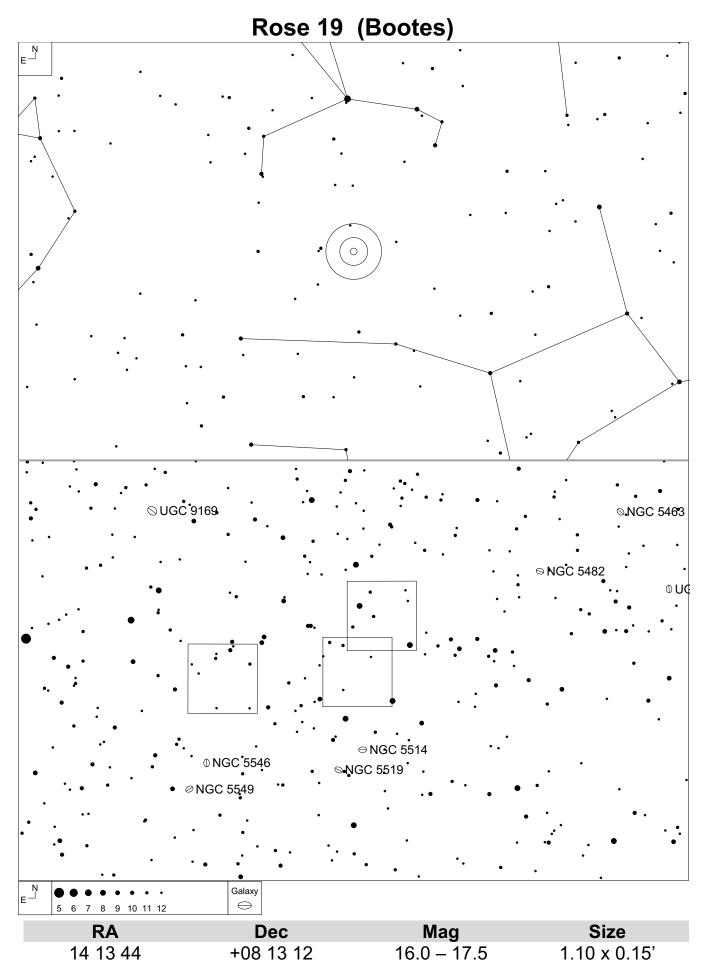


### 22" (306 and 460x)

I'm not sure where the fourth member is. Based on the Sloan image, I'd guess it is probably buried in the glow of NGC 5511. Two members of this group were detected. **NGC 5511** is a very faint round low surface brightness patch. About 25" across. **MCG+2-36-50** lies 1' NW of NGC 5511. Considerably faint 4:1 elongated high surface brightness glow. PA = 0° and about 15" long.

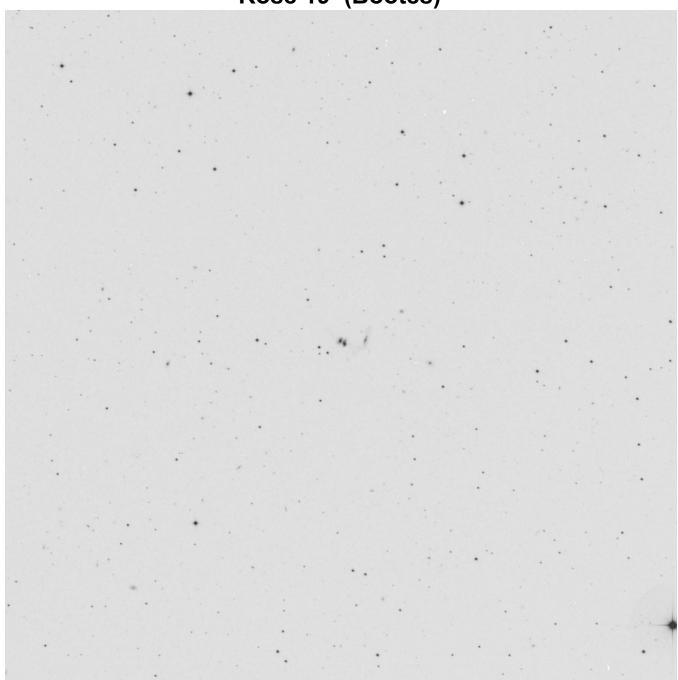


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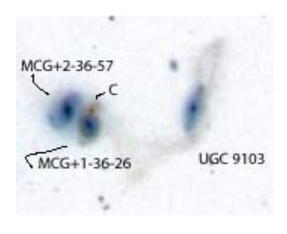
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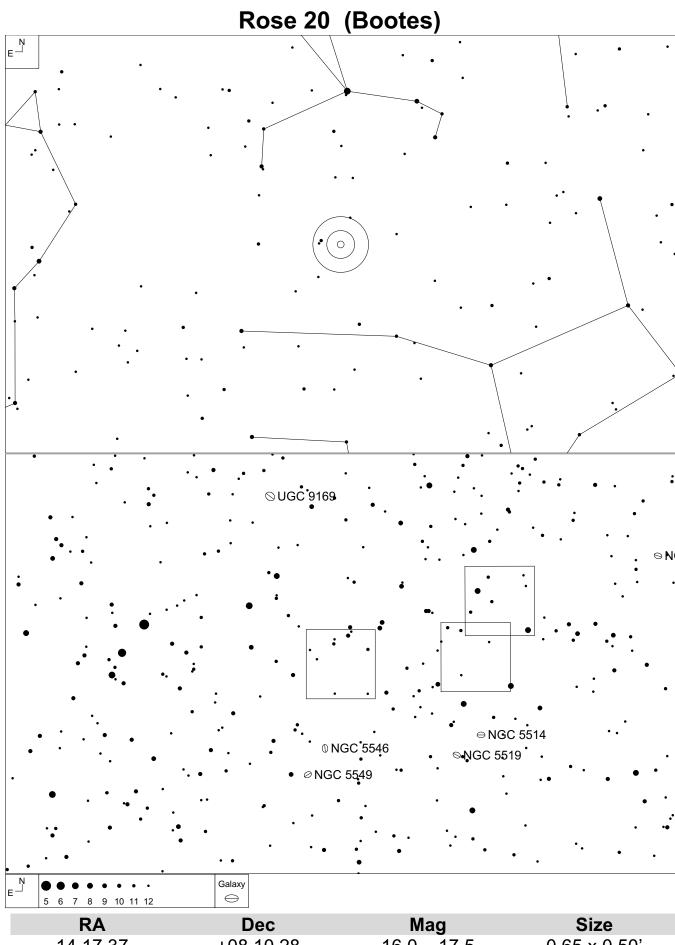
## Rose 19 (Bootes)



### 22" (306 and 460x)

This compact quartet occupies only 1.1' space as a loose e-w chain . I've detected only 3 members. The fourth member is lost in the glow of MCG+1-36-26. Starting on the east, MCG+2-36-57. It is a considerably bright round glow with a brighter center. It is just resolved from its similarly bright neighbor, MCG+1-36-26, to the west. Both are about 15" across and separated by less than 10". UGC 9103 lies a little less than 1' to the west. It is a very faint slightly elongated glow. PA = 0° and about 15" long. Component C was not detected.

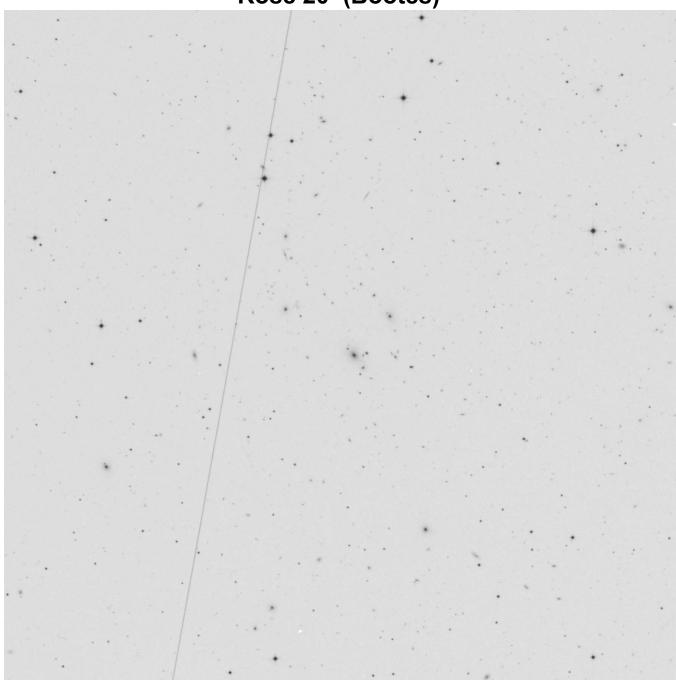




14 17 37 +08 10 28 16.0 – 17.5 0.65 x 0.50'

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Rose 20 (Bootes)

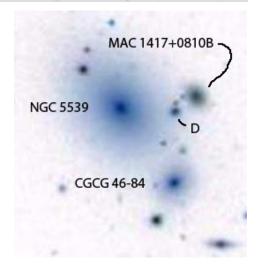


#### 22" (306 and 460x)

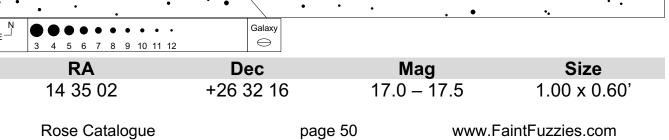
This quartet is arranged like an equilateral triangle with a much fainter fourth member inside the triangle. Each side is a little more than 30" long.

**NGC 5539** is by far the brightest member. It lies on the NE corner and is a considerably bright round glow with diffuse edges and a brighter center. About 20" across. The NW galaxy is **MAC 1417+0810B**. It is a faint round flow with a slightly brighter center. About 10" across. The southern corner is **CGCG 46-84** and is a very faint round patch. Less than 10" across.

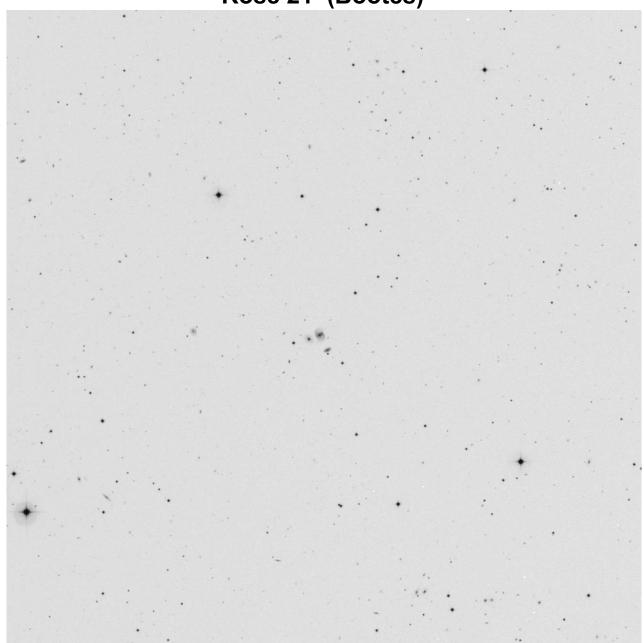
Component D was not detected.



Rose 21 (Bootes) ⊚ NGC 5635 • ⇔NGC 5629**°** 



## Rose 21 (Bootes)



#### 22" (306 and 460x)

The three brightest galaxies form a 45 degree right triangle. There is a companion on one of IC 4461's arms.

**IC 4462** is the eastern most galaxy and is faint round with a brighter center. About 10" across. A 12.6 magnitude star lies 45" east.

**IC 4461 (Arp 95)** lies on the west corner and is the right angle of the triangle. It is a considerably faint 3:2 elongated glow with a stellar core.  $PA = 90^{\circ}$  and 25'' long.

**MCG** +5-34-76 is on the southern corner and is a considerably faint 2:1 elongated patch with a nearly stellar core.  $PA = 100^{\circ}$  and 15" long. A 15.3 magnitude star lies 10" south.

**Component D** was not detected.

MCG +5-34-76

IC 4462

IC 4461 (Arp 95)

companion

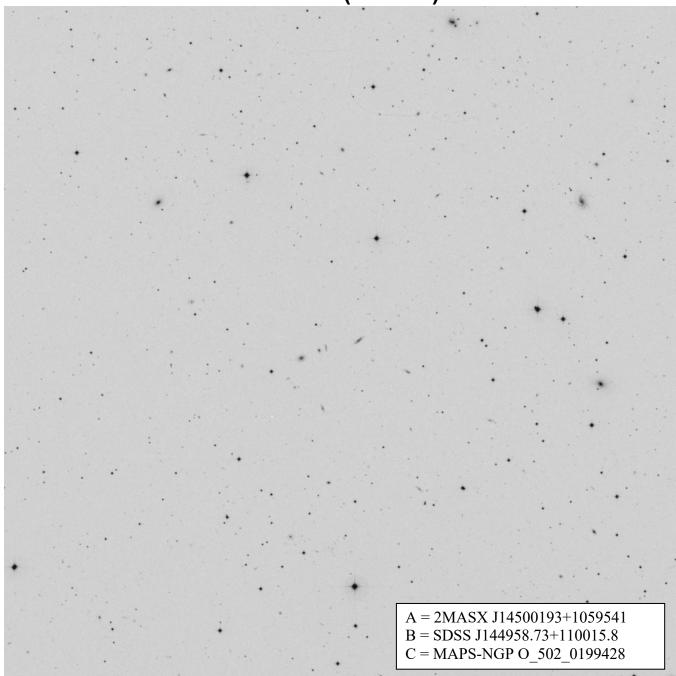
Rose 22 (Bootes) Ø NGC 5762



8 9 10 11 12

Galaxy

## Rose 22 (Bootes)



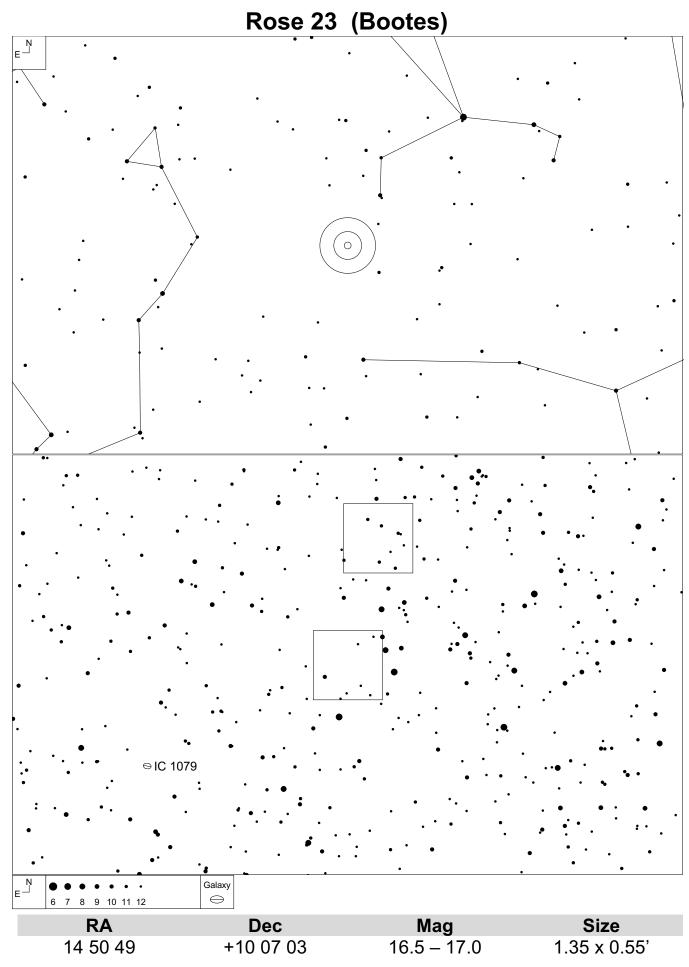
### 22" (306 and 460x)

This chain of four galaxies anchored by two of the brightest members lies at a position angle of 110 degrees.

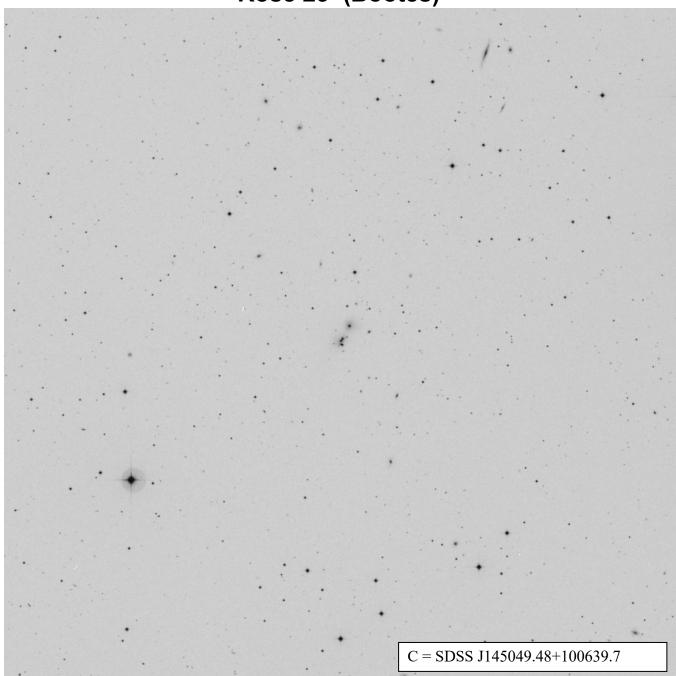
Only one is labeled. Starting with the labeled galaxy, **MAC 1449+1100**, is a

A MAC 1449+1100 B C

very faint 2:1 elongated even surface brightness glow.  $PA = 135^{\circ}$  and about 10'' long. The other detected galaxy, **Component A**, lies 2.8' ESE and is a very faint even surface brightness round glow. About 10'' across. These are the only two detected in this chain.



# Rose 23 (Bootes)



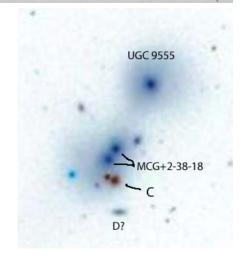
### 22" (306 and 460x)

This chain of four galaxies is only 1' long.

The northern most galaxy, **UGC 9555**, is a considerably bright round glow with a much brighter center. About 15" across.

**MCG** +2-38-18 is an unresolved double galaxy and is considerably faint slightly elongated glow. Even surface brightness.  $PA = 135^{\circ}$  and 15'' long.

**Component C** was not detected.

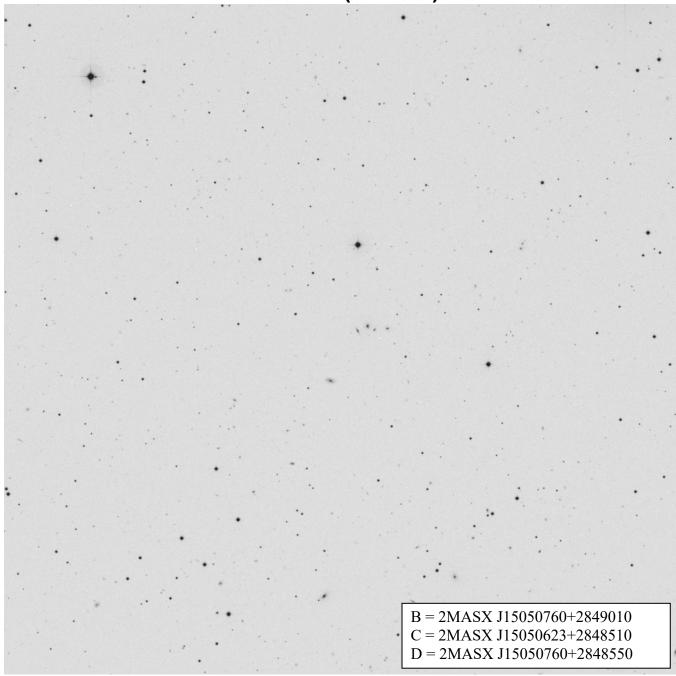


Rose 24 (Bootes) **NGC 5798** 



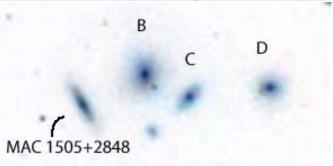
Galaxy

# Rose 24 (Bootes)

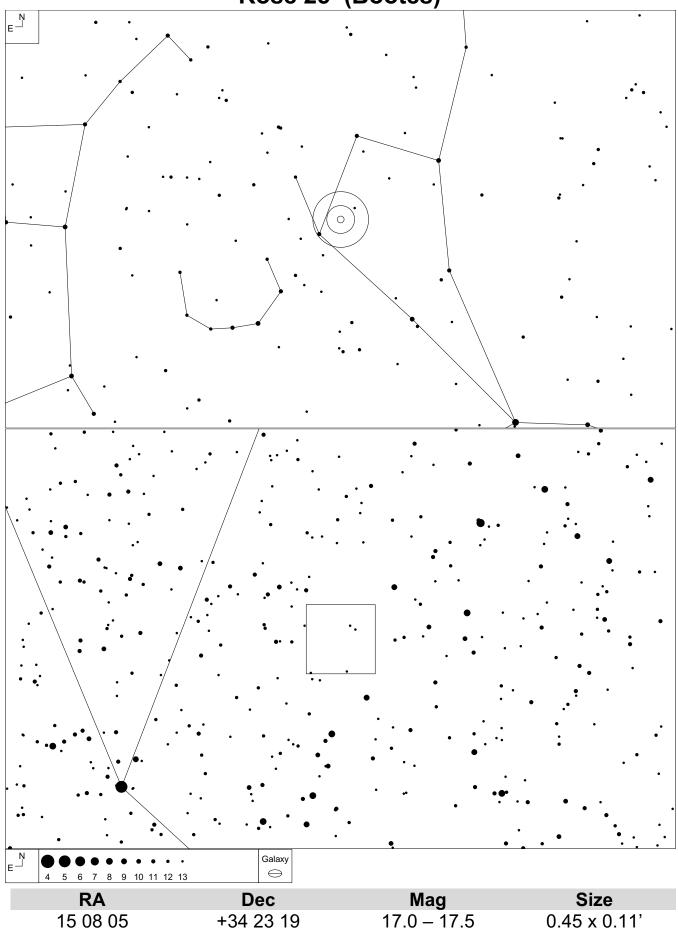


### 22" (306 and 460x)

Chain of four equidistant galaxies lying ew. The eastern most member is the only labeled galaxy. The seeing tanked during this observation as this chain appears as an unresolved mass. I'd have to try again on a steadier night.



Rose 25 (Bootes)

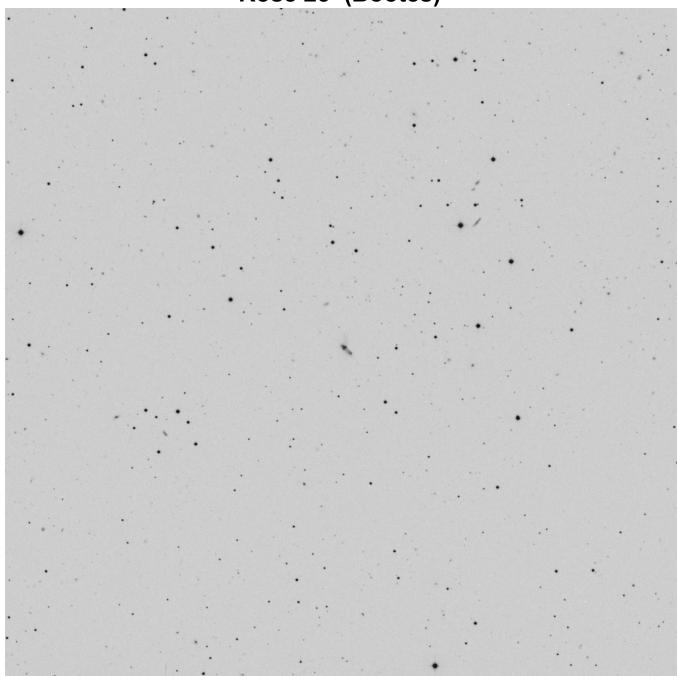


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# Rose 25 (Bootes)



#### 22" (306 and 460x)

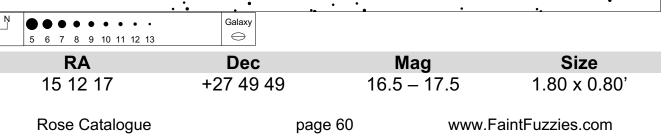
Based on the Sloan image, three galaxies are buried in each other in a very tight equilateral triangle of less than  $10^{\prime\prime}$  on each side. The "lone" galaxy lies just SW of the trio.

**MCG+6-33-22** appears as an extremely faint elongated glow. PA =  $45^{\circ}$ . The **trio** is unresolved and is considerably faint slightly elongated glow. About 10'' long and PA =  $45^{\circ}$ .

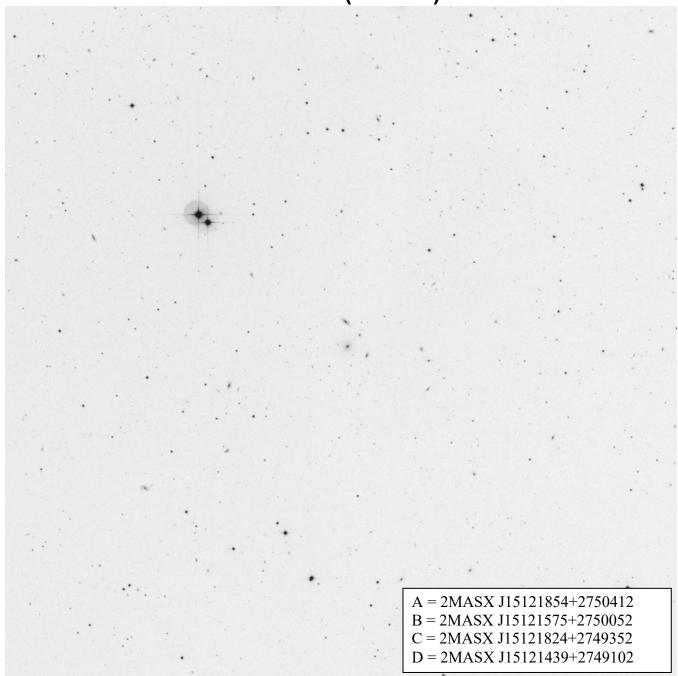


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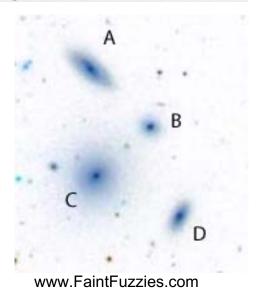
# Rose 26 (Bootes)



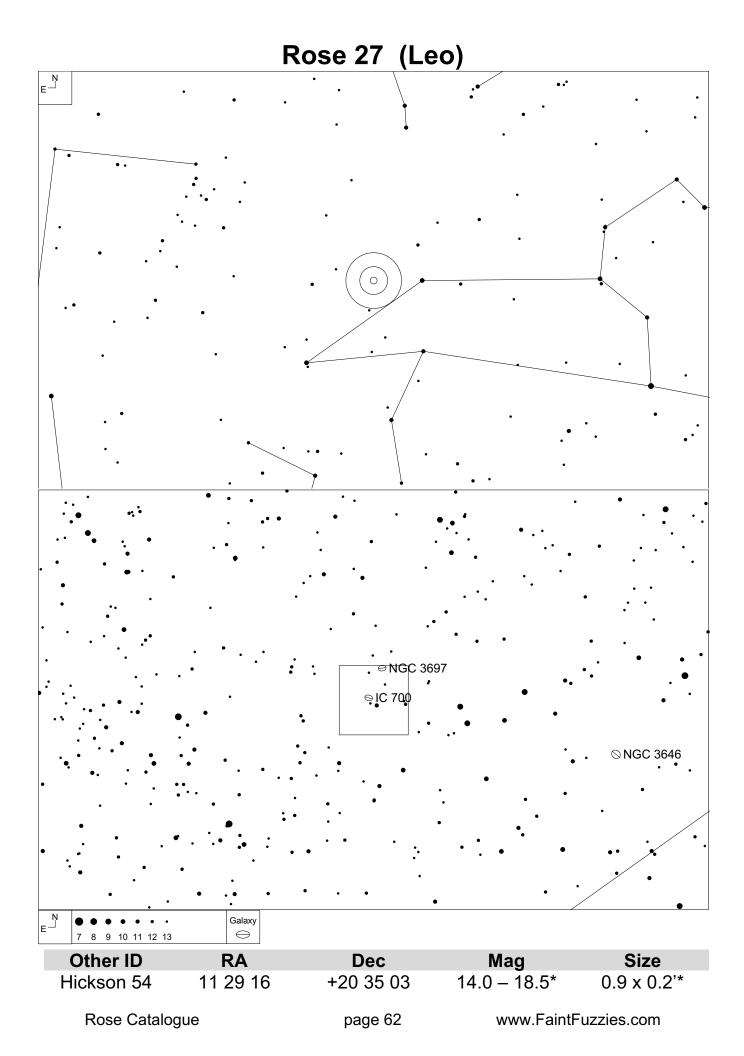
## 22" (306 and 460x)

This quartet is arranged much like a squat "T" rotated clockwise 45 degrees. Only the three ends were seen. All three members were extremely faint very small round glows. All three were consistently held with some popping in and out.

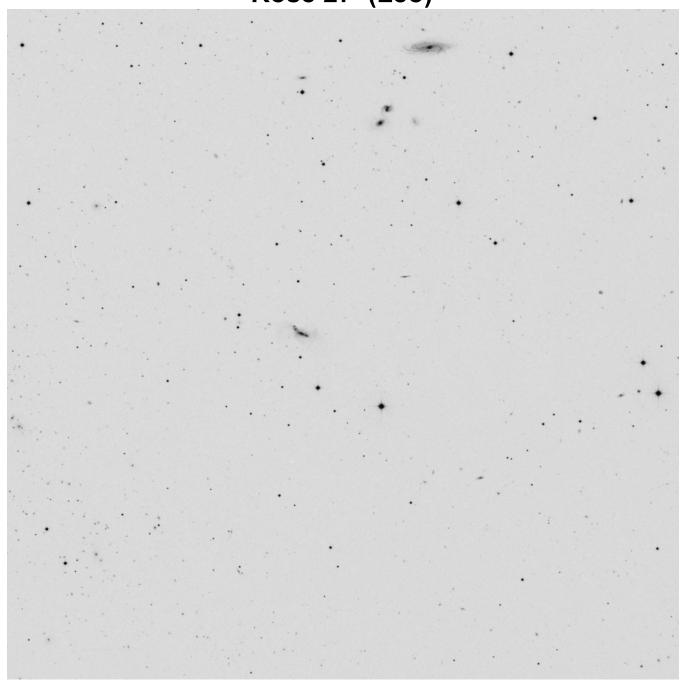
Component B was not detected.



Rose Catalogue

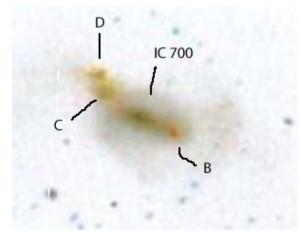


Rose 27 (Leo)



### 22" (306 and 460x)

Hickson 54 – Components **IC 700 and B** were resolved as two individual nuclei, but within the 4:1 elongated but slightly curved glow containing all four galaxies. The two individuals were on the west side. About 45'' long and  $PA = 45^{\circ}$ 



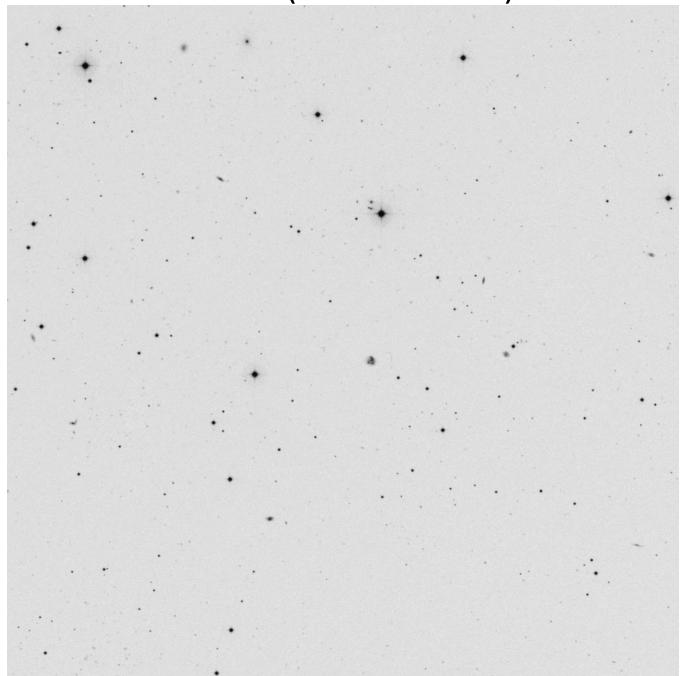
Rose 28 (Coma Berenices) Ø.NGC 4162 **NGC 4213** Galaxy 5 6 7 8 9 10 11 12 **RA** Dec Size Mag 12 06 46 +24 36 21 16.0 0.5 x 0.4'

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Rose 28 (Coma Berenices)

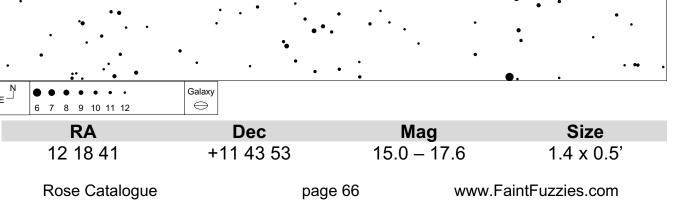


## 22" (306, 460 and 639x)

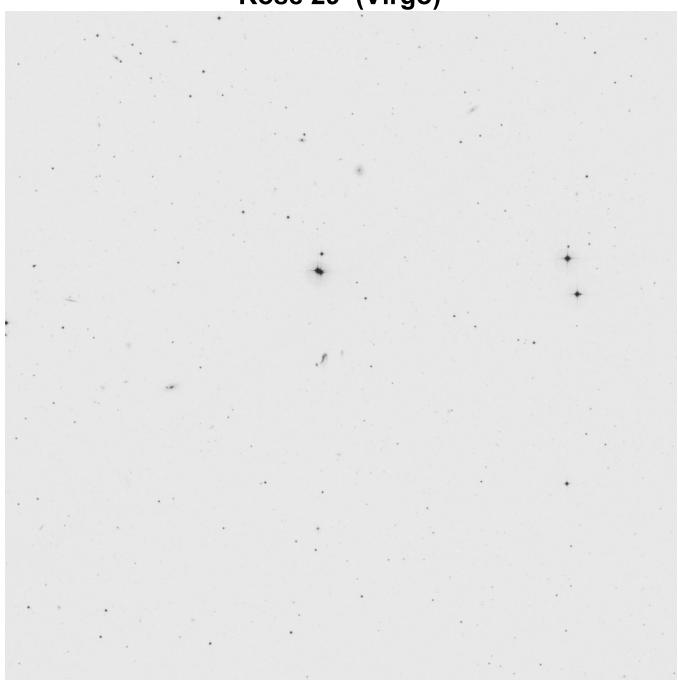
Unresolved mass. Very faint round even surface brightness with diffuse edges. About 15"across.



Rose 29 (Virgo) NGC 4438 NGC 4435 **NGC 4216** Ø NGC 4267 • . — NGC 4388 → NGC 437.1 NGC 4429 NGC 4178 Galaxy  $\ominus$ 7 8 9 10 11 12



# Rose 29 (Virgo)



### 22" (306, 460 and 639x)

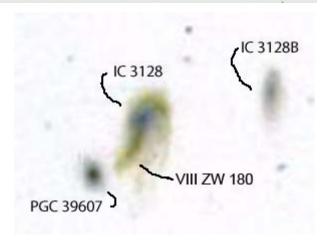
Two individual glows detected.

**IC 3128** is very faint, 2:1 elongated glow. Even surface brightness. About 20'' long and  $PA = 160^{\circ}$ .

**PGC 39607**, which is just 15" off the SE tip of IC 3128. It is slightly brighter than its neighbor. Very small round glow. > 10" across.

IC 3128B was not detected.

VIII Zw 180 was not detected.



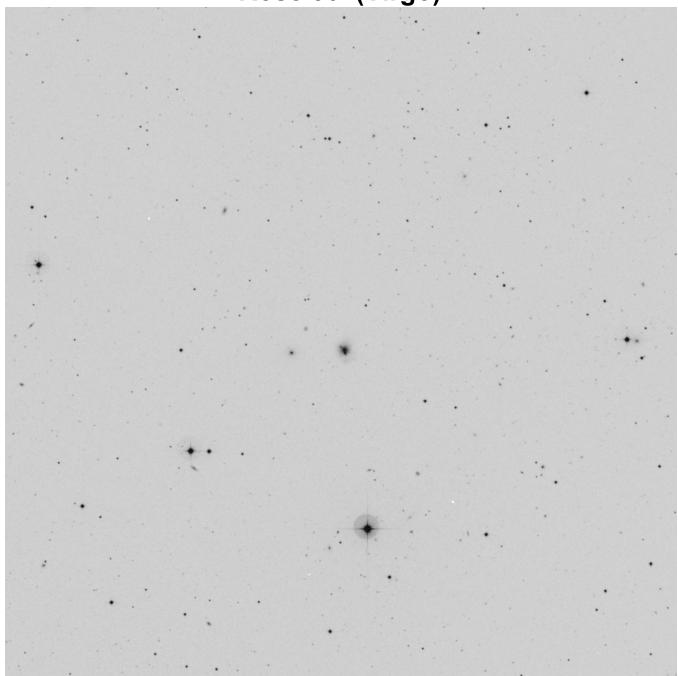
Rose 30 (Virgo) **○NGC 5020** Galaxy **Mag** 14.6 Size RA Dec 13 16 53 +12 32 54 0.6 x 0.6'

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Rose Catalogue

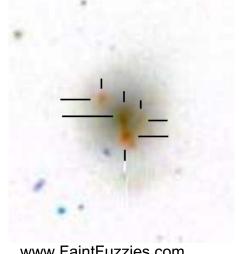
www.FaintFuzzies.com

Rose 30 (Virgo)



### 22" (306 and 460x)

NGC 5058 Apparently this is a unresolved mass of galaxies of about 0.6' across according to MegaStar. NGC 5058 is a considerably bright mottled patch. About 30" across. I believe this is a "try again" on a much steadier night and very high powers, >700x.



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Rose Catalogue

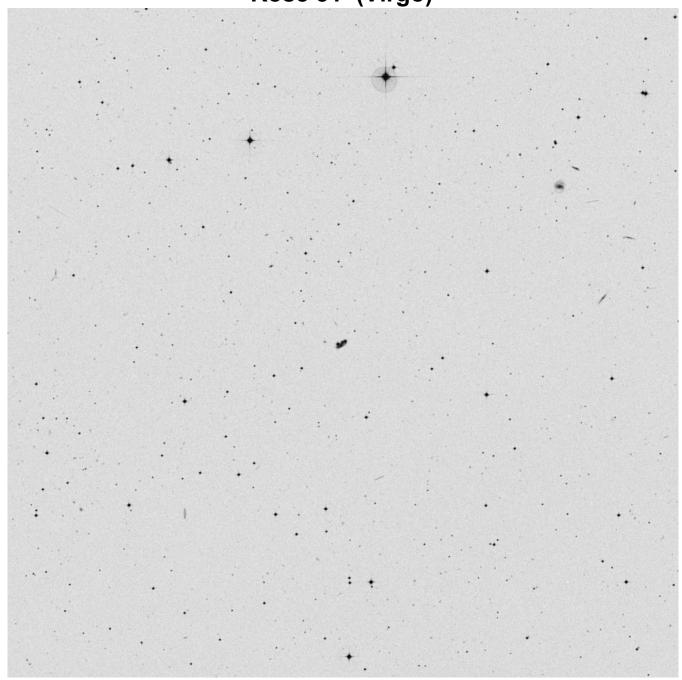
Rose 31 (Virgo) ØNGC 5133∙ ∘NGC 5015 •



8 9 10 11 12

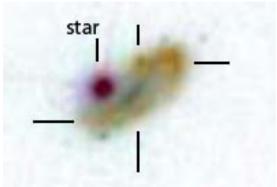
Galaxy

Rose 31 (Virgo)

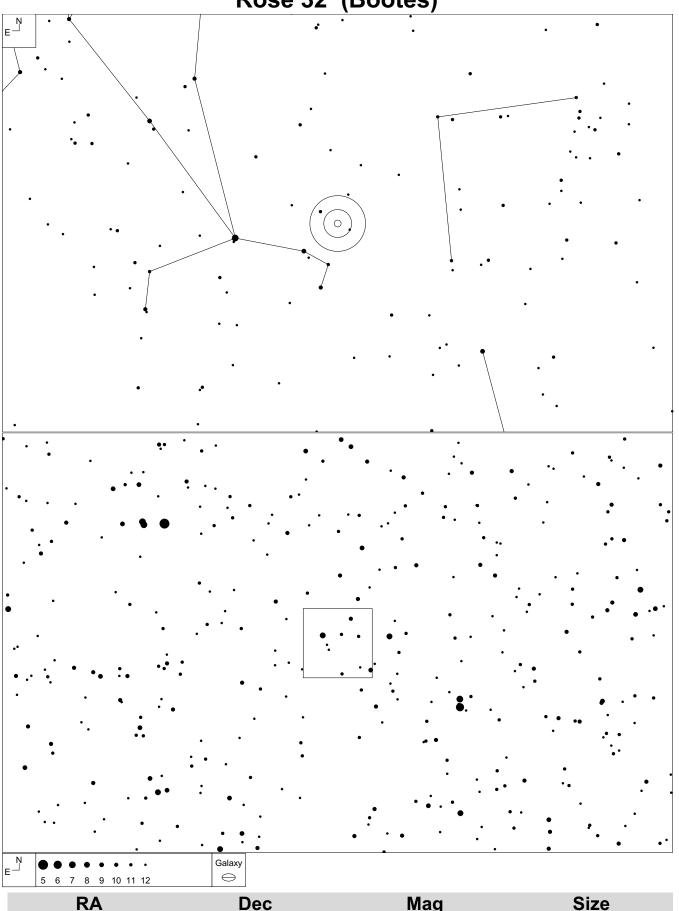


## 22" (306 and 460x)

MCG+0-34-24. Visually at 460x, it is a considerably faint 2:1 elongated glow with a 12.0 magnitude star involved on the NE edge. Well defined edges. PA = 120° and 40″ long.



Rose 32 (Bootes)



 RA
 Dec
 Mag
 Size

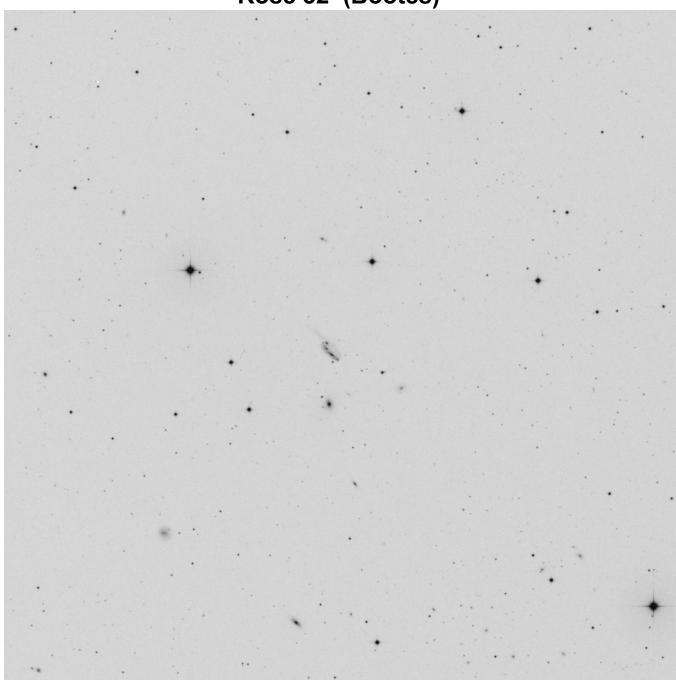
 13 44 25
 +20 24 42
 15.0 - 18.0
 1.1 x 0.4'

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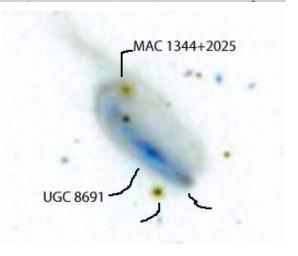
www.FaintFuzzies.com

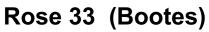
### Rose 32 (Bootes)

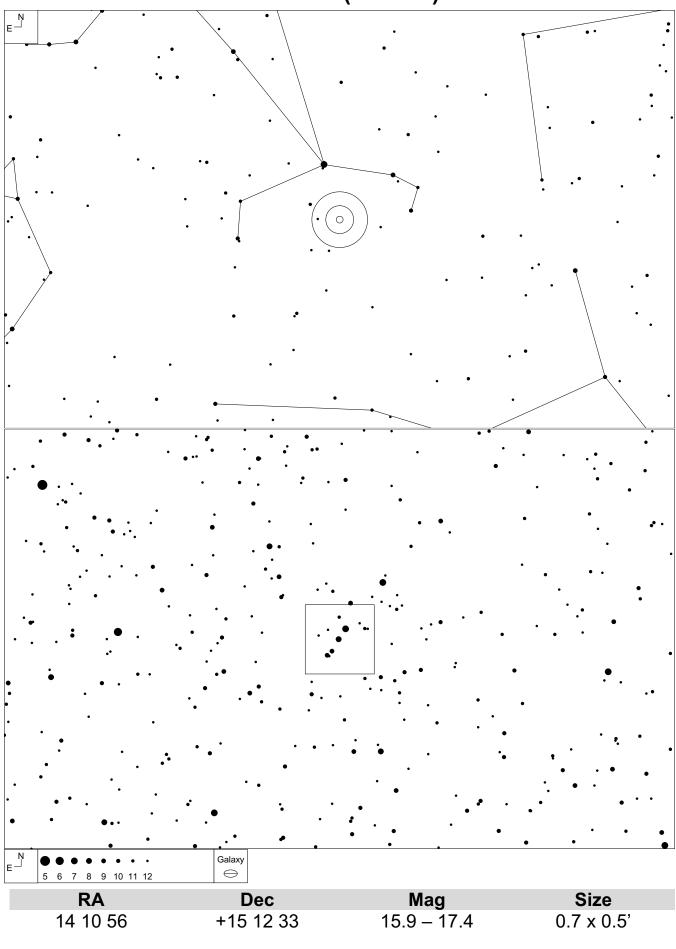


### 22" (306 and 460x)

This group consists of three galaxies merged with each other in a NE-SW line about 1.1' long. The lone member lies just 15" north off the northern tip of the trio. The trio is labeled as UGC 8691 is MegaStar. Visually, it is a considerably faint 4:1 elongated mottled glow. PA = 45 and 50" long. The "lone" member, MAC 1344+2025, is a very faint very small round glow with a sharp stellar core. Less than 10" across.





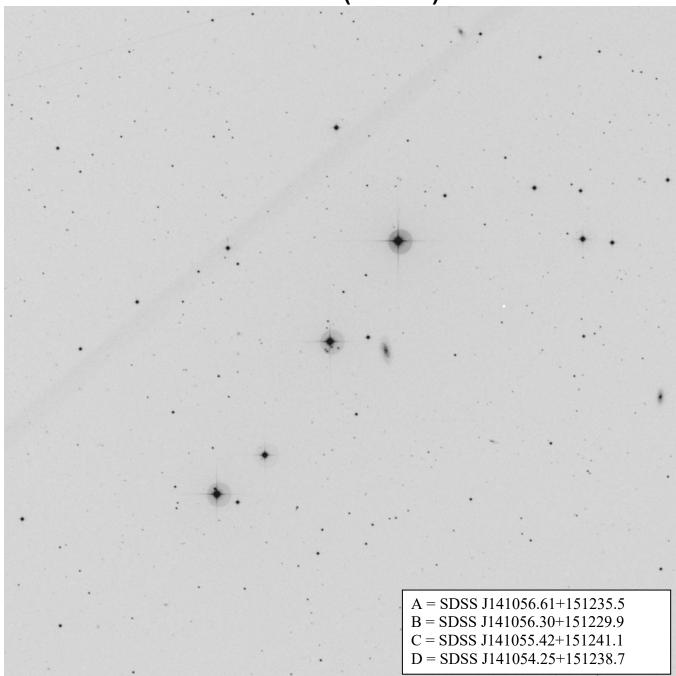


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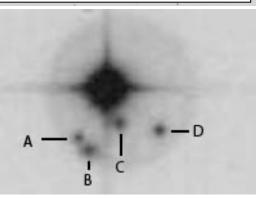
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### Rose 33 (Bootes)



### 22" (639 and 821x)

Component B is an extremely faint glow that pops in and out, more out than in. It popped out about 5 times in 2 minutes. It lies just 30" SE of SAO 100896, a 7.9 magnitude star). This is probably the brightest of the quartet. I've asked another experienced observer to confirm the sighting as I wasn't sure if I was imagining things, and he confirmed the sighting at 821x.



#### 48" (813 and 1220x) (NELM 7.6)

All four easily seen as fuzzy stars. The one nearest the 7.9 mag star is the most difficult.

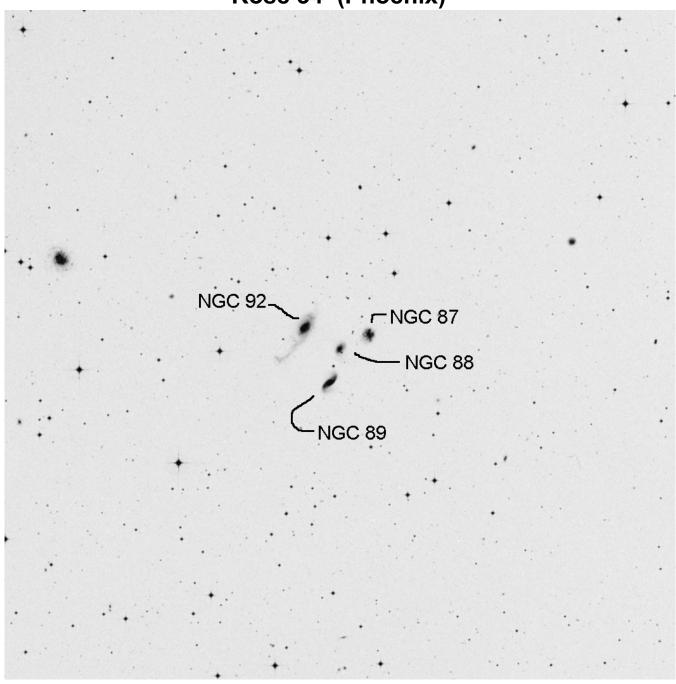
# The Atlas of the Rose Compact Groups of Galaxies

Southern Compact Groups

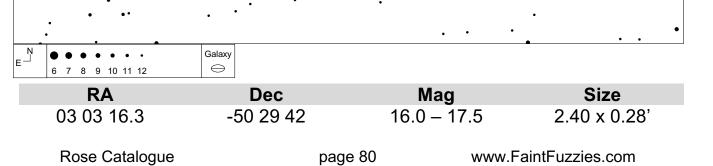
Rose 34 (Phoenix) Galaxy



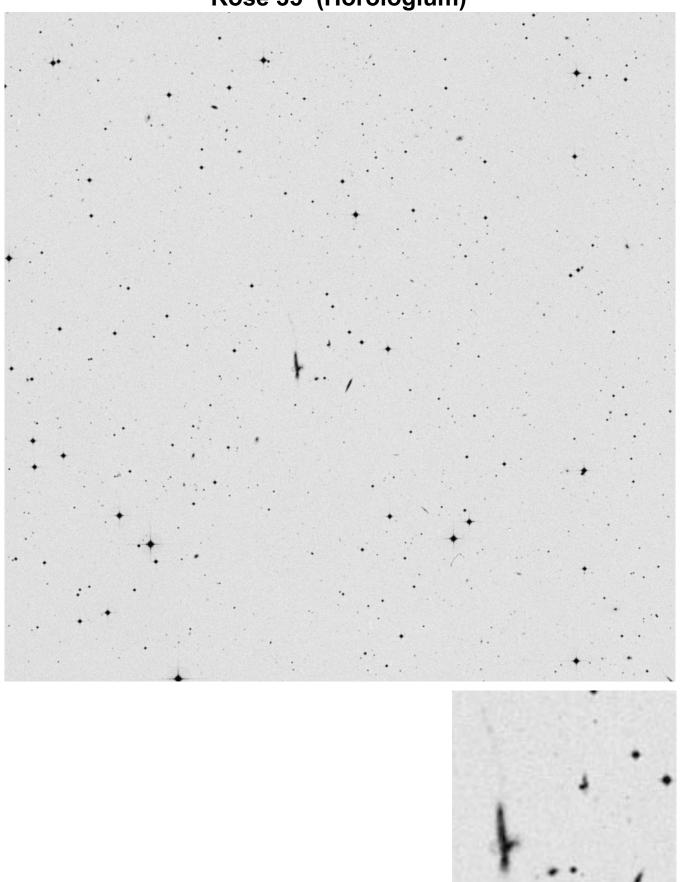
## Rose 34 (Phoenix)



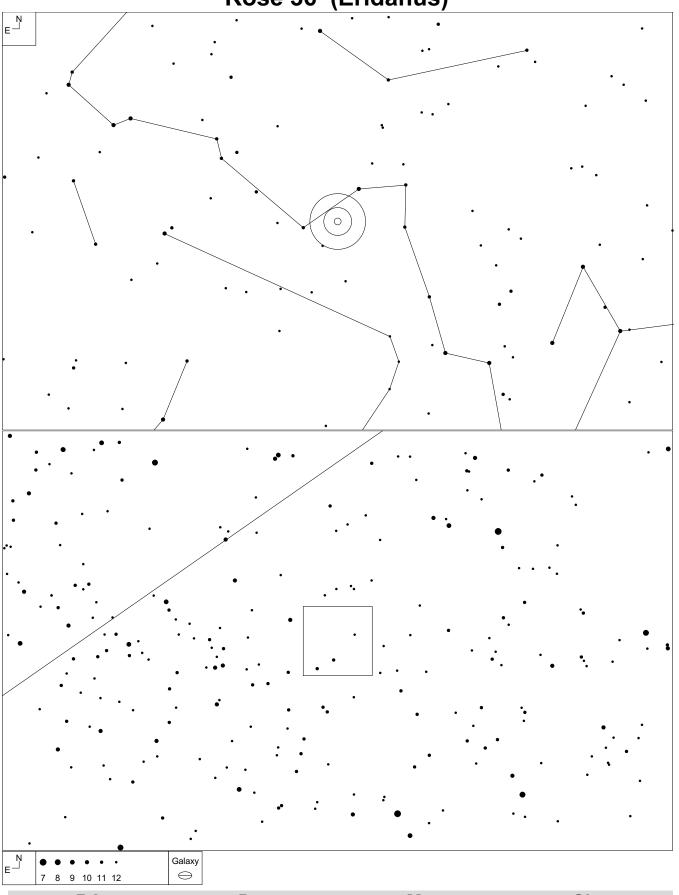
Rose 35 (Horologium)



Rose 35 (Horologium)



Rose 36 (Eridanus)



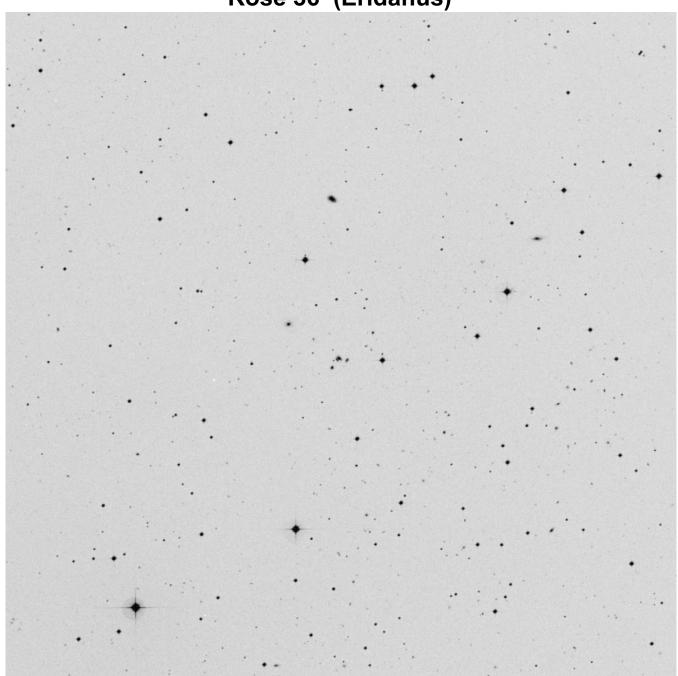
RADecMagSize03 06 18.7-42 40 4517.6 - 17.61.0 x 0.5'

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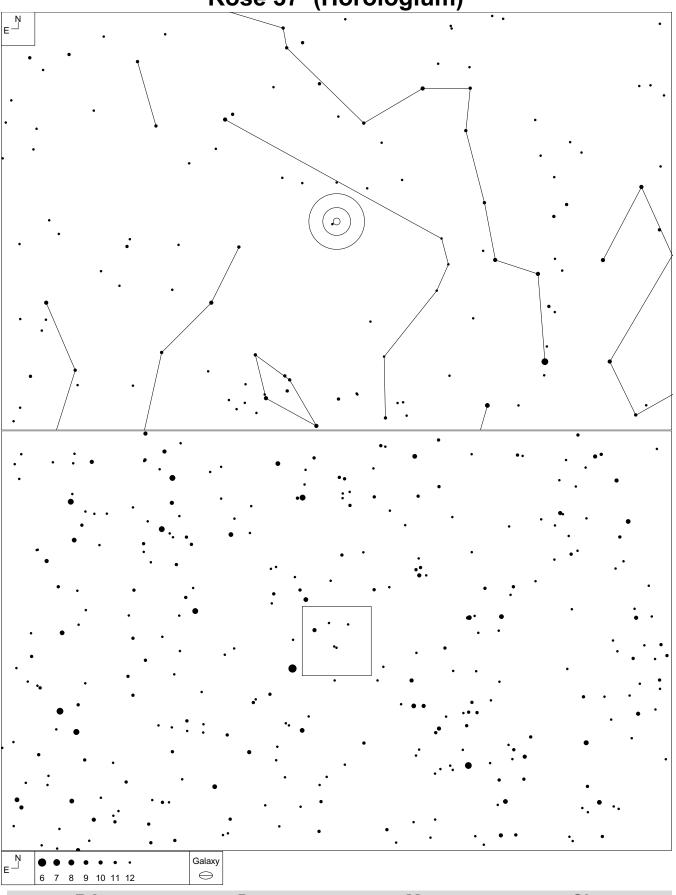
www.FaintFuzzies.com

Rose 36 (Eridanus)



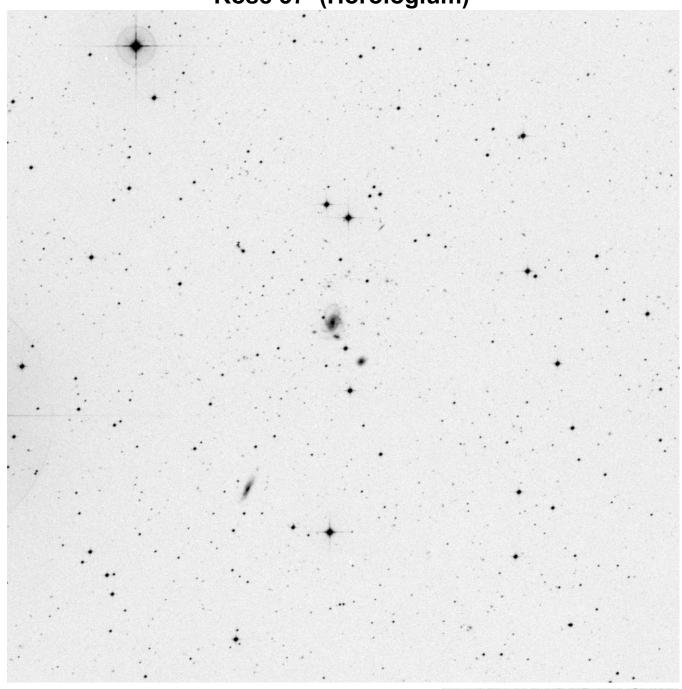


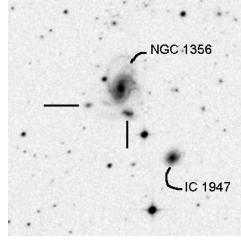
Rose 37 (Horologium)





Rose 37 (Horologium)





Rose 38 (Telescopium) Ø NGC 6851 ● NGC 6868NGC 6861 Galaxy 6 7 8 9 10 11 12

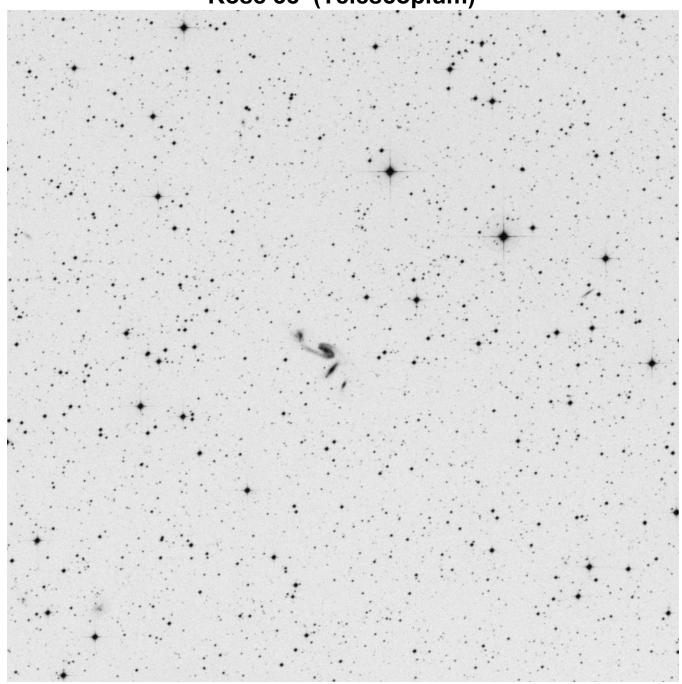
Other ID	RA	Dec	Mag	Size
Kemola 30	20 00 59.2	-47 04 11	13.7 – 16.4	8.55 x 1.65'

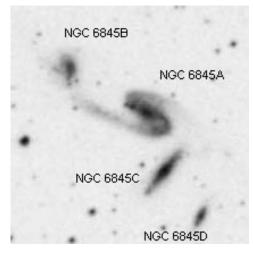
Rose Catalogue

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www.FaintFuzzies.com

Rose 38 (Telescopium)





### **Additional Resources**

### **Sources and Recommended Reading**

Bettoni, D. and Fasano, G. "Morphology of early-type galaxies in compact groups." IV Rose groups" Astronomy and Astrophysics Supplemental Series, Vol 118 (1996), 429-439

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Rose, James A. "The Dynamical Nature of Compact Groups of Galaxies" *Astrophysical Journal*, Vol 231 (1979), 10-24

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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

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#### Websites

webviz.u-strasbg.fr/ - Centre de Données astronomiques de Strasbourg

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

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

http://archive.stsci.edu/cgi-bin/dss form - The STScI Digitized Sky Survey

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

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

www.galaxyzoo.com - Galaxy Zoo

### **Sources of Charts and Images**

Charts by Megastar version 5 Willmann-Bell Richmond, VA

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

www.sdss.org - Sloan Digital Sky Survey – Data Release 8 (SDSS DR8)

## **Revision History**

Date	Revision
March 25, 2010	New document
March 27, 2013	Refresh throughout. Enhanced finder charts Labeled images for Rose 34, 37 and 38
April 12, 2013	Added front cover
March 2024	Minor edits. No material changes.