APRIL 1991

ORWELL ASTRONOMICAL SOCIETY IPSWICH

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SOCIETY NEWS

1 COMMITTEE MEETING

The next committee meeting will be on Saturday 18th May, with a start at 7.30pm in the club room. As usual this is an open meeting and any member who wishes to attend will be welcome.

NIGHT SKY

All times GMT

SUN Rises approximately between 05.40 to 04.30
Sets approximately between 18.30 to 19.30

MOON

7th 14th 21st 28th

MERCURY Mercury will be visible in the evening sky during the first half of the month. I will be moving into the morning sky after inferior conjuction on the 14th.

VENUS Venus will be visible in the evening sky, moving into Taurus. By the end of the month it will be setting about 4 hours after the sun. Mag. -3.9

MARS Mars remains a evening object. Its magnitude is still fading from 1.1 to 1.4. This month it will be moving across Gemini.

JUPITER Jupiter is still well placed for observing. This month it will be passing infront of the star cluster Praesepe. By the end of the month it will be setting at about 02.00. Mag.-2.3

SATURN Saturn will be rising at about 02.30 in mid month. It is near the border of Capricornus and Sagittarius. Mag. 0.7

URANUS Uranus is in Sagittarius, and rises at about 01.30 in mid month.

NEPTUNE Neptune is also in Sagittarius, and will be rising at about the same time as Uranus.

R.Gooding

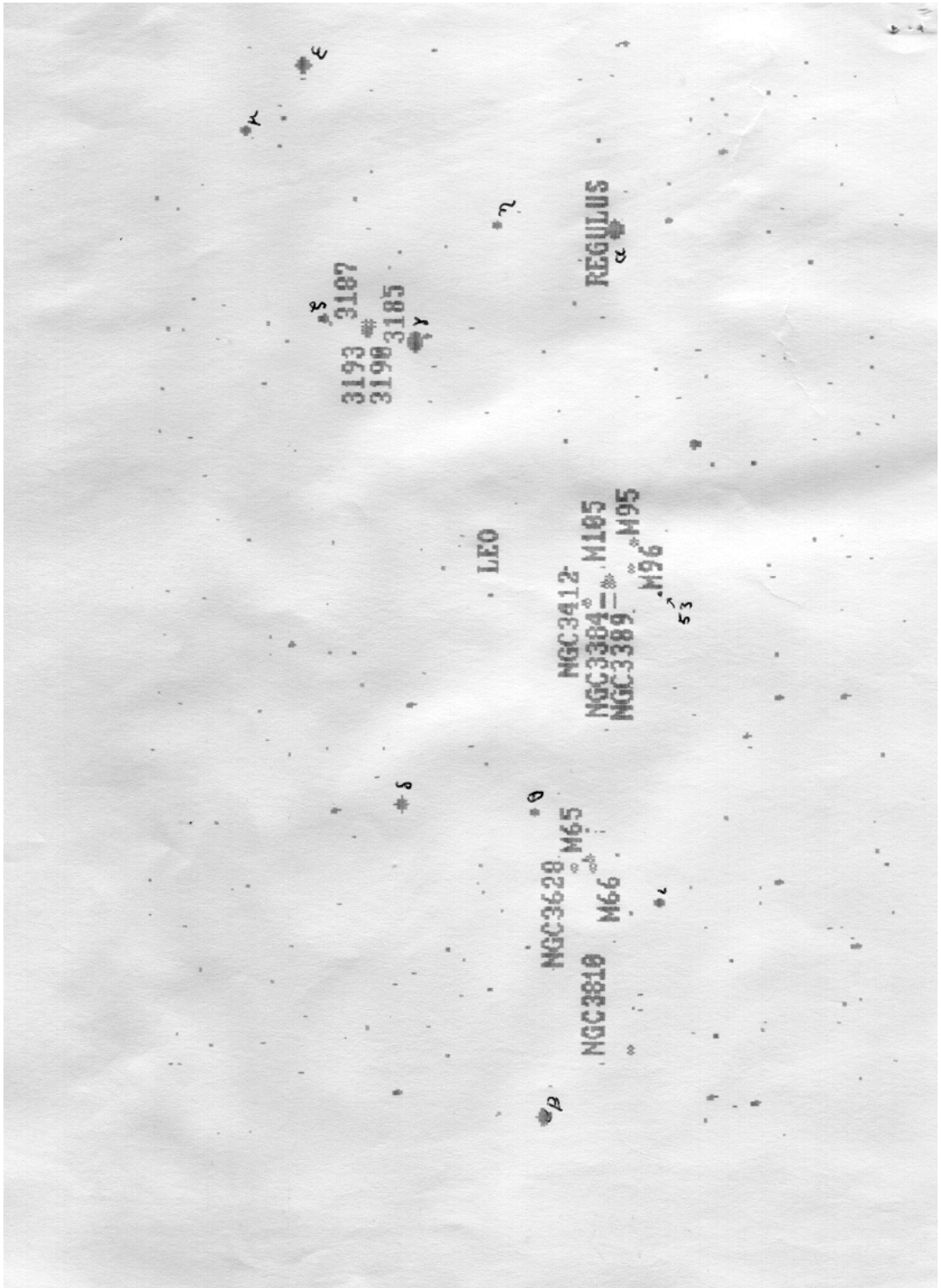
Deep Sky Objects in Leo

David Payne

The constellation Leo is high in the southern sky during April and is well positioned for some some deep sky observing.

Leo is one of the easiest constellations in the sky to identify and is certainly one of the few that is instantly identifiable with its name. The "Sickle of Leo" dominated by the first magnitude star Regulus forms the head and mane of a majestic crouching lion facing westwards. The hind quarters of the beast are formed by the bright triangle of stars Beta, Delta and Theta.

There are five Messier objects in Leo - M65, M66, M95, M96 and M105 and numerous NGC objects, All of them are galaxies and many are faint and difficult for small telescopes. M65 and M66 are a fine pair of spiral galaxies fairly easily found midway between Theta and Iota Leonis. The two galaxies both lie at a distance between 30 to 38 million light years and are separated by only some 150,000 light years. m66 is the slightly smaller of the two around 50,000 light years across while M65 is around 60,000 light years. Visually both are easy to see with small telescopes as elongated fuzzy objects and can easily be located on dark clear nights with good binoculars. About 35 minutes north of M65 and M66 is a fainter edge on spiral galaxy NGC3628. This third object forms an isosceles triangle with M65 and M66 and all three can be seen together in a low power field of a small telescope under good conditions.



About 4 degrees to the east of Iota Leonis lies NGC3810 this object is fairly easy to locate by using a low power eyepiece giving at least 1/2 degree field of view. Position Iota Leonis to the top (south) of the field and then move the telescope east about 2.5 degrees until a triangle of three 6 to 7th magnitude star appear in the field. Position the brighter pair of the triangle to the top (south) of the field and continue eastwards a further 1.5 degrees and NGC should appear some where near the centre of the field. It is a spiral galaxy fainter than M65 and M66 but should be easy in small telescopes having an integrated magnitude of 11.5.

The other three Messier objects M95, M96 and M105 lie near the centre of the constellation approximately mid way between Iota Leonis and Regulus. A little more difficult to find than M65 and M66. I find the easiest way to locate them is to find the 5th magnitude star 53 Leonis then move the telescope 1.5 degrees northwest. This should bring M95 and M96 into the field of view with a low power eyepiece. The galaxies are 42 minutes apart with M96 being the brighter of the pair. M95 is a fine barred spiral with photographs showing a ring of stars surrounding the galaxy. M96 is a spiral with a large central region showing little structure with many short spiral arms emerging from it. The galaxy M105 lies 48 minutes northeast of M96 and forms a small triangle with two other galaxies NGC3384 (northeast) and NGC3389 (southwest) All these galaxies are at about the same distance (around 30 million light years) and are gravitationally linked together.

Another interesting group of galaxies are NGC3190, 3193, 3187 and 3185 these are fainter than the previous group mention and will require a larger instrument to see them all. The most difficult is NGC 3187 at magnitude 13 and NGC3185 at 12.7. NGC3190 and 3193 are easier both being magnitude 12. NGC3190 appears elongated being a near edge on spiral galaxy. NGC3193 is a condensed almost circular elliptical galaxy appearing like a fuzzy star. NGC 3187 is also fairly edge on an appears elongated while NGC3185 is a fine spiral galaxy almost face on and appears as a faint circular patch (only the brighter nucleus being visible by eye). This grouping lies in a field less than 20 minutes across not too difficult to locate on dark clear nights lying almost midway between Gamma Leonis and Zeta Leonis.

Although Galaxies do not reveal much detail visually these groupings are well worth searching out. Leo is a rich area for galaxies and with Virgo lying to the east many pleasant hours can be spent wandering through these two constellations searching out faint and distant galaxies.

FIELD TRIP TO OBSERVE A GRAZING OCCULTATION

An occultation occurs when a "nearby" object moves in front of, or occults, a more distant object. This frequently occurs when the moon moves in front of stars. However, sometimes the position of the moon means that instead of completely covering the star a "near miss" occurs. The star will be seen to dodge behind the mountains on the edge of the moon only to reappear in the valleys. This is called a grazing occultation.

As the position of the star is for all intents and purposes fixed, a precise timing of the event can yield useful data as to the position of the moon. This data is analysed by the BAA and helps to refine our knowledge of the still not yet completely known lunar orbit.

In any one year, there will be on average one grazing occultation of a "bright" star visible from East Anglia. This year there are an amazing 5 events that have observing tracks located within striking distance of Ipswich. As usual a team from the OASI will attempt to observe these phenomena. (The first event was on FEB 21st and as expected was completely clouded out !!)

A graze itself is very spectacular when observed through a reasonably high powered instrument (10X50 binoculars are probably NOT powerful enough). For only the second time since the formation of the society, one of the graze tracks will pass close to the observatory at Orwell Park (the actual track passes through Felixstowe). If anyone has a portable instrument and would like to take part in this years observations (weather permitting!!) please contact me at the observatory on any Wednesday evening for precise details. (NEXT event is in early MAY)

A.J.Smith.

PROGRAMME FOR APRIL

DAY	DIRECTORS	SECTION	PHONE No.s
Mondays from 8.00pm		GENERAL OBSERVATION SECTION	
8-15 22-29	Mr R Newman	, Felixstowe, IP11 9DY.	Tel. Fel.
	Mr J King	, Felixstowe, IP11 9LQ.	Tel. Fel.
Tuesdays from 8.00pm		GENERAL OBSERVATION SECTION	
2-9 16-23 30	Mr R Newman	[Address above.]	Tel. Fel.
	Mr J King	[Address above.]	Tel. Fel.
Wednesdays from 8.00pm		NEBULA AND FAINT OBJECTS SECTION	
3-10 17-24	Mr M Cook	, Ipswich, IP4 5PZ.	Tel. Ips.
	Mr D Payne	, Wickham Market, IP13 0SD.	Tel. W.M
Fridays from 8.00pm		PLANETARY AND LUNAR SECTION	
5-12 19-26	Mr P Richards	, Ipswich, IP4 1QB.	Tel. Ips.
	Mr R A Lobbett	, Felixstowe, IP11 8UJ.	Tel. Fel.
	Mr G Marriott	, Ipswich, IP4 4JB. [Assistant Director]	Tel. Ips.

All nights are open to all members, but, on nights other than Wednesdays, ring directors to confirm. Directors will also be able to tell you if a group visit is taking place. All sections observe anything of interest, but the title indicates the main specialism.

Lectures and other events :

1991 COMMITTEE

CHAIRMAN	D Payne	[Address above.]	Home: Work:
VICE CHAIRMAN /VISITS CO-ORD	D Barnard	, Ipswich, IP4 5PP.	Home: Work:
SECRETARY	R Gooding	, Ipswich, IP1 6AE.	Home: Work:
TREASURER	M Nicholls	, Capel St Mary, Ipswich, IP9 2EX.	Home: Work:
MAINTENANCE CO-ORD	M Cook	[Address above.]	Home: Work:
JOURNAL CO-ORD	E Sims	, Ipswich, IP1 4HA.	Home:
LIBRARIAN	P Richards	[Address above.]	Home: Work:
EQUIPMENT CURATOR	J King	[Address above.]	Home:
SPECIAL EVENTS CO-ORD	A Smith	, Ipswich, IP4 5RZ.	Home: Work: