



ASTRONOMICAL SOCIETY OF SOUTHERN AFRICA

Durban 'nDaba

Monthly Newsletter of the Durban Centre - April 2023

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Chair's Chat

Greetings all. Fully a quarter of the year is now behind us. We had our first cold front come through a couple days ago and the temperatures certainly reflected that; so, clearer winter skies shouldn't be too far down the road. A recent weekend in the bush at Darkest Africa near Weenen reminded me of what we miss in Durban; the most stunning dark, clear skies when you have to sit and concentrate to work out which of those sky diamonds are the Southern Cross or Orion. My point-and shoot camera simply could not do it justice.



April 12th sees us joining Johannesburg for a talk on spectroscopy. Their presentation starts at 7:30pm but Durban will meet, on line, at 7pm, to quickly run through the 'business' side of things as we did last month. Links to both meetings will be provided closer to the time.

Our bank signatories have finally been changed; we now have the bank consultant on speed dial (when you find a good one, keep him/her). Thanks to Corinne Gill for holding the fort while we shuffled back and forth with a wad of signed forms and more signed forms, and then updated signed forms, and triplicate of what we had for breakfast – you know the drill. Thanks also to Francois Zinserling for picking up the mantle. He has now been designated lifetime treasurer so we don't have to do this all over again any time soon .

As the skies clear, public viewing nights will (fingers crossed) become possible again. Dates for the next few months are : 21 April, 19 May, 16 June & 14 July. John Gill kindly ran an intro to telescopes course for those interested in joining the viewing team. Unfortunately, at such short notice I couldn't join them – after so many disrupted years, I could certainly do with a refresher. Hopefully we can twist John's rubber arm for a second stint to increase the team.

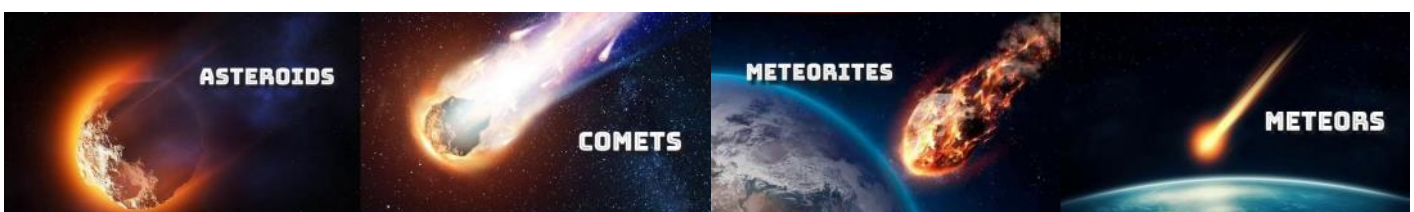
Things have been happening behind the scenes – the committee doesn't sit on its thumbs. Please pencil these dates on your calendar. We are always looking for assistance with all these events held. Please contact Sheryl if you'd like to help out.

See page 18 for further details:

- There is a home school group that would like us to give them a presentation. These are usually during school hours and comprise age appropriate talks and tasks.
- 20 May Fairbreeze Farm Adventures Star Party. An evening demonstration will be held at Mtunzini.
- 15 July at Monteseel Conservancy Star Party. This is a very popular annual event. Date still to be confirmed. Usually this has about 3 telescopes and 6 members (at least) attending.
- St Henry's dedicated Star Party evening for 21 July.

Don't know about anyone else but my blue astronomy t-shirts are starting to show their age and it may be time to order some new ones, plus the beanies or peaks. Let us know if there is general interest out there and we'll look into prices. Please send your requirements via email to Francois@astronomydurban.co.za by 15th April subject title heading: ASSA clothing and your name.

See y'all at the general meeting in 2 weeks.

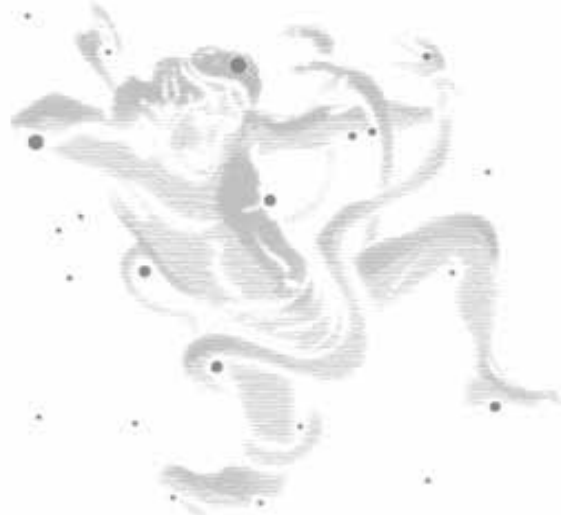


Astronomy Delights - Hercules

The Sky's Strong Man

By Magda Streicher

Hercules was one of the oldest constellations to be named and portrays the mythology of the past in a very special way. The "strong man" was seen as a hero crouching on one knee, bow and arrow in hand. The constellation Sagitta was probably seen as the arrow shot off by him. Before the common era the constellation was simply called The Kneeler, but the real name ascribed to the strong man in antiquity was Ninurta, the War God. The constellation is the fifth largest of the 88 constellations inhabiting the starry skies.



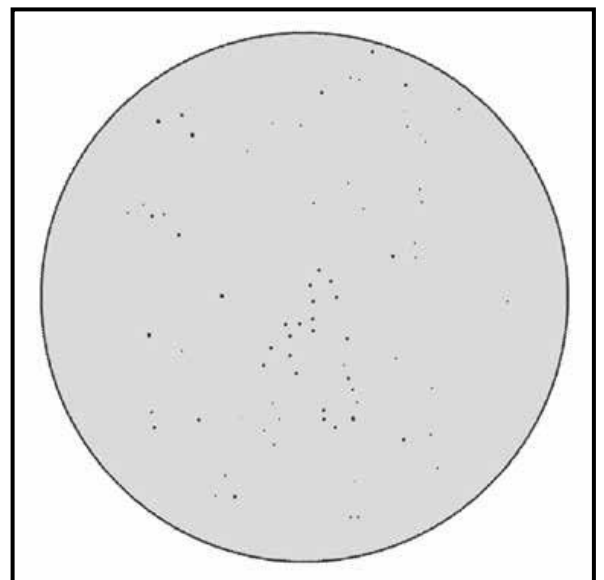
LEFT: **DOLIDZE-DZIMSELEJSVILI 7** (DoDz 7),
Image Credit: Flickr

This hero lifted his head looking south-east with the star alpha Herculis in the direction of the constellation Ophiuchus. This red giant star is 400 light-years away and also a variable ranging between magnitude 2.7 and 4 during a six year period. The constellation offers a good variety of objects. The first one to discuss is

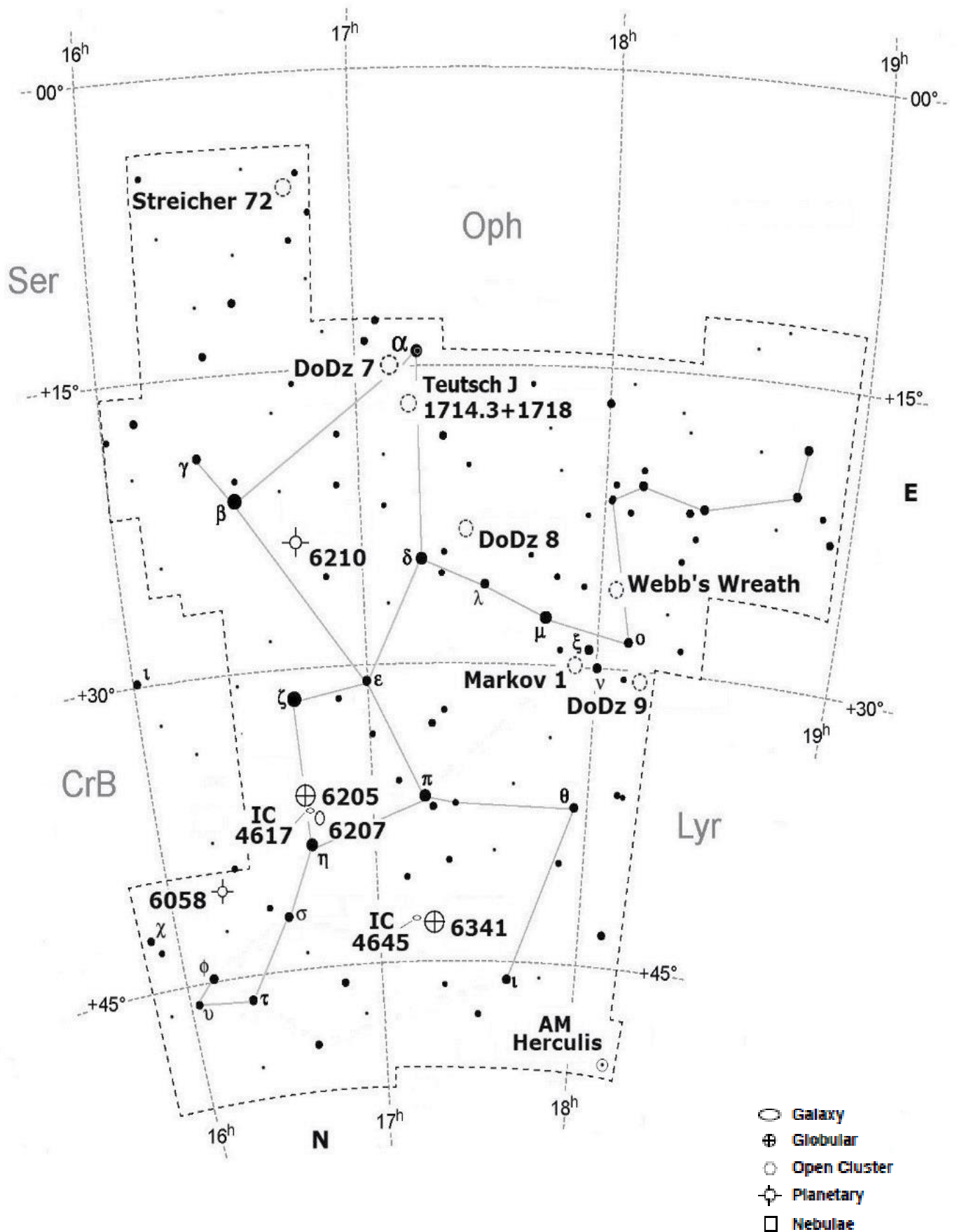
DOLIDZE-DZIMSELEJSVILI 7 (DoDz 7),

which is situated only 1.5 degrees north of alpha Herculis. The beauty of open clusters, and especially the ones with fewer stars, always tells a story of one kind or another. DoDz 7 shows itself off as a little boat drifting on a black sea, with the starry night sky to accompany it. The brighter stars situated in an east to west direction can be seen as the base of the sailboat with a nice yellow coloured star south to mark the mask. Faint stars fill in the gaps and outline the impression. The Finnish observer Jere Kahanpää was the first to mention the resemblance and since then the grouping has been known for it.

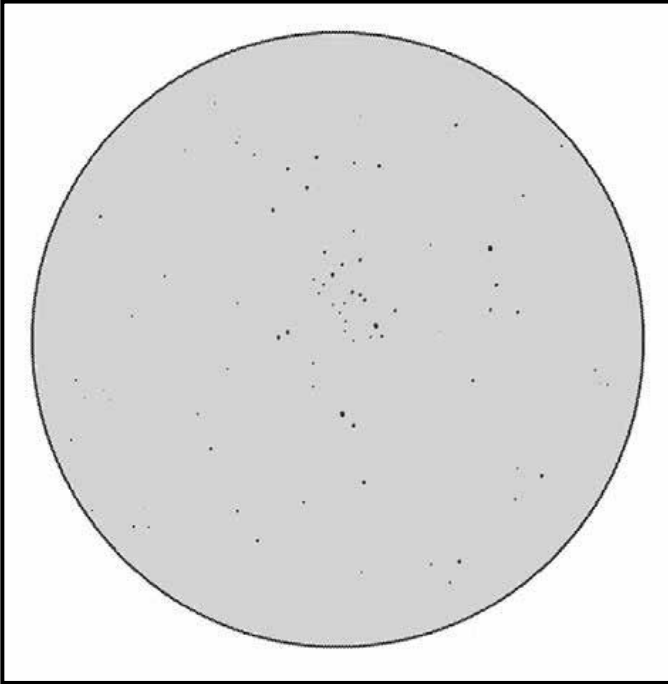
I sniffed out **STREICHER 72** by using a star program, followed by a search through the 16-inch telescope. The very faint grouping is in the southern corner of the constellation in a fairly densely packed star field. The impression, however, is amazing in that in a handful of similar magnitude stars one can see perhaps the image of a starry chair. The galaxies NGC 6224 and NGC 6225 are situated only 20' towards the south-east.



...Hercules



...Hercules



About 2 degrees north of alpha Herculis Philipp Teutsch discovered the asterism **TEUTSCH J1714.3+1718**. The dainty tight grouping of five stars can be easily out lifted between the field stars.

The backbone of this constellation is surely beta Herculis, a binary star with a spectrum similar to that of our Sun and 147 light-years away from us. One of the sky's most perfect planetary nebulae, **NGC 6210**, can be found 4 degrees north-east of beta Herculis and situated 10' northwest from a magnitude 7 light orange coloured star. It displays a near perfect round glow with a hazy edge and if I'm not mistaken, with a hint of green and light blue colour flowing

into each other. The magnitude 12 central star is covered in its misty blanket. The well-known Stephen O'Meara found "some crisp edges to an inner bubble and the core appeared as an amorphous knot in a speckled mist with high magnification". Also known as the Turtle Nebula, it can most definitely be described as one of the most delicate nebulae.

RIGHT: NGC 6210 -Image Credit: Wikipedia



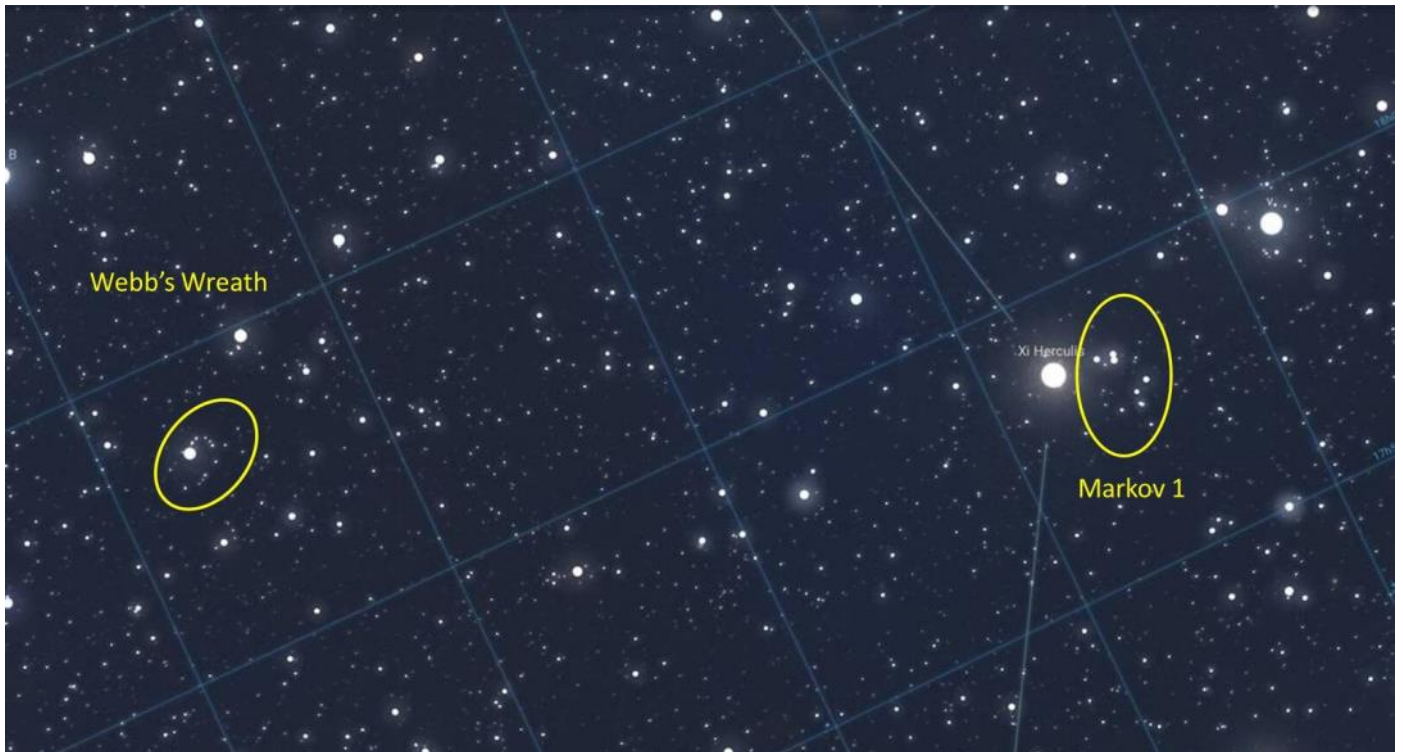
LEFT: **DOLIDZE-DZIMSELEJSVILI 8** (DoDz 8) - Image: Skypixels



The open cluster **DOLIDZE-DZIMSELEJSVILI 8** (DoDz 8), is situated 1.5 degrees east from its host star, delta Herculis towards the middle area of the constellation. Two pairs of double stars, north and south, framed this grouping, which displays a sort of zigzag shape in formation.

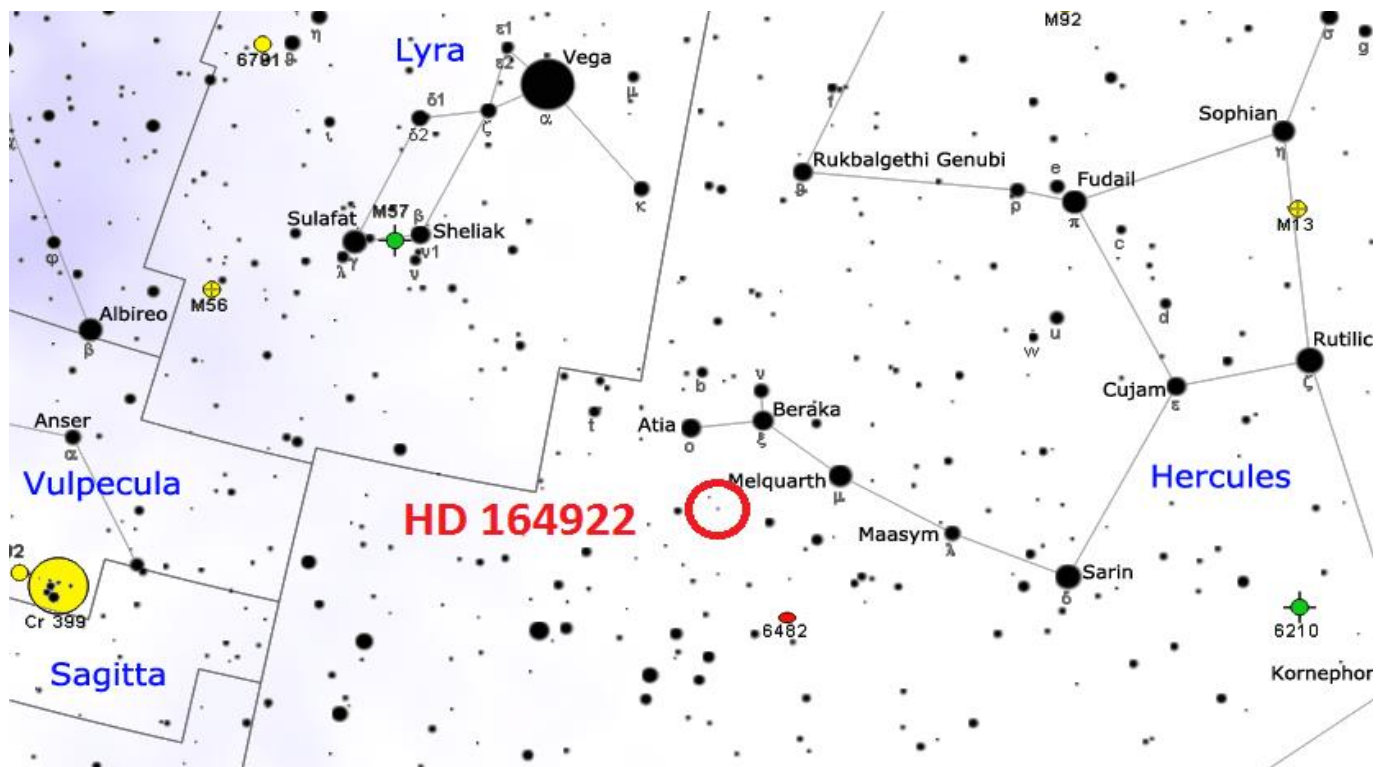
The strong man's arm stretching from the star delta Herculis towards the east where a few star groupings possess a lot of character. The grouping **MARKOV 1** displays an altogether lovely half-moon shape open towards the west with a few yellow and orange coloured magnitude 10 stars. Canadian amateur Paul Markov

...Hercules



ABOVE: Webb's Wreath and Markov1 - Image Credit : Cloudy Nights

The grouping **WEBB'S WREATH**, which has been catalogued in the Thomas William Webb observing guide *Celestial Objects for Common Telescopes*, is situated 2.6 degrees south from omicron Herculis. If an observer is looking for a colourful half-moon shape grouping, then this is it, although rather faint. A lovely yellow magnitude 7-star HD 164922, tops the grouping towards the south.



...Hercules



ABOVE: DoDZ 9 - Image Credit: Bernhard Hubi

A colourful splash of stars quite outstanding against a faint star field is **DOLIDZE-DZIMSELEJSVILI 9** (DoDZ 9), situated 2.5 degrees north-east of nu Herculis in a field sprinkled with faint stars. Madona Dolidze was a Georgian astronomer who worked from the late 1950s until 1975 using objective-prism plates with the Abastumani 70-cm Maksutov telescope, surveying for emissionline stars, red stars, and other objects. The star groups were reported incidentally from these surveys and are regions where there seemed to be either groups of stars with early spectral types

or where there be a main-sequence-like run from brighter early-type stars toward fainter redder stars. The entire latter sort of groupings is non-physical, simply from the fact that the range in magnitudes observed is less steep than what a real cluster would show. Dolidze worked with G. Dzimselejsvili in 1966 and publish a list of 11 open clusters which has been catalogued with both of their names.

The Hercules constellation is easily recognisable with the four corners marked by epsilon and zeta towards the south, with eta and pi Herculis north. Within this square is the most famous globular cluster in the northern hemisphere, none other than **NGC 6205**, also known as Messier 13, situated more or less halfway between eta and zeta Herculis. M13 was discovered in 1714 by Edmond Halley, who noticed it with the naked eye as he hunted for comets at the time. It is large and bright because it is relatively close to us and has been called the Great Hercules Cluster. Also, in Hercules is a cluster of galaxies called the Hercules Galaxy Cluster, but it is a difficult task to unravel.

BELOW: NGC 6205 - M13 - Photograph: Fitz



M13 is a stunning globular cluster and truly unique. Stars seem to blow out with star outliers randomly into the star field from the cluster fringy edge and more so on the northwestern side. The bright wide core covered in a mist of faint stars is extremely compressed.

A few dark lanes can be seen through the mass of stars. The most prominent dark wedge is cutting towards the southeastern part of the globular cluster and is called the Propeller by amateurs. An extremely faint and small galaxy, IC 4617, is situated less than 10' north, riding in the misty rain of M13.

...Hercules

However, the galaxy **NGC 6207** is situated less than half a degree further north. It displays a soft north-east to south-west oval which is somewhat brighter towards the middle. With higher magnification the nucleus grows in brightness. NGC 6207 was discovered in 1787 by William Herschel with an 18.7-inch f/13 speculum telescope. He called it "pB, pS, E sp-nf, vgmbM, which means pretty bright, pretty small, elongated in the direction south proceeding to north following, the light becoming very gradually much brighter towards the middle".



ABOVE: NGC 6206 Image Credit: Wikiedia

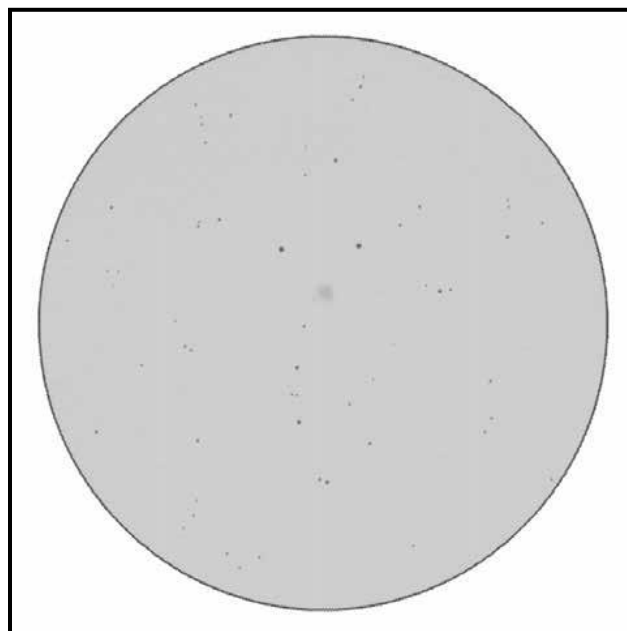
LEFT: NGC 6341 - M92 Image: NASA



Half the size of M13 and most of the time overlooked by the Great Hercules Cluster is the globular cluster **NGC 6341**, better known as Messier 92. It is situated halfway between the star's eta and iota Herculis. M92 is beautiful, initially lightening slowly then suddenly growing brighter to a compressed unresolved core. A few dark spots settle among the stars with a more notable string of faint stars flowing north-east. It is a very old globular cluster, about 25 000 light-years

distant. J.E. Bode discovered M92 in 1777 and it was added as number 92 in the 1781 Messier's catalogue. There is also a faint galaxy IC 4645 half a degree west, to keep up the norm of competing with the famous M13. On top of that, M92 is accompanied by a chain of galaxies trailing behind, stretching for almost 3 degrees south.

In the north-western corner of the constellation close to the border with the constellation Corona Borealis a lone planetary nebula can be found. The small and faint disc of **NGC 6058** displays a hazy outer envelope and washed-out greyish colour. The central star shines dimly at magnitude 13.8, making it difficult to spot. William Herschel discovered NGC 6058 in 1787 and described it as a star with nebulosity. However, it is special because it is situated in a very strange position in relation to the surrounding stars. The planetary nebula forms a very distinct Y shape with the surrounding stars.



...Hercules

Tucked into the most north-eastern corner, a degree east from the merging pair of galaxies, both known as NGC 6582, is the variable star AM Herculis. The star with a spectral Type-M4.5 ranges between magnitude 12.3 and 14, was discovered by Maximilian Franz Joseph Cornelius Wolf in 1923, and is lying just outside the so-called rectangular Uhuru source. The Uhuru satellite positively confirmed AM Herculis as the optical counterpart of 3U 1809+50, a weak X-ray source. The X-ray telescope aboard the SAS-3 satellite was striving a better position for 3U 1809+50, and the accuracy of the measurements, the position of the X-ray source was the same. At the time the thought might have been that it was a quasar or related object. This unusual star has a very strong magnetic field surrounding the system. It has now been called AM Her-type, which are cataclysmic variable stars with extremely strong magnetic fields also known as Polars.



ABOVE: NGC 6582 - Image: Theskylive.com

You do not need to be strong to enjoy the various wonderful objects that the starry strong man has to offer – just do not try to take him on in a fight!

OBJECT	TYPE	RA	DEC	MAG	SIZE
NGC 6058	Planetary Nebula	16h04m.4	+40°41'.7	12.9	23"
NGC 6205 Messier 13	Globular Cluster	16h41m.7	+36°28'.2	5.7	16.6'
IC 4617	Galaxy	16h42m.8	+36°41'.0	15	0.5'×0.1'
NGC 6207	Galaxy	16h43m.1	+36°50'.0	11.6	3'×1.1'
NGC 6210	Planetary Nebula	16h44m.5	+23°48'.5	8.8	14"
STREICHER 72 GSC Group 396-389	Asterism	16h47m.3	+06°27'.2	12	8'
Dolidze Dzimselejsvili 7	Open Cluster	17h11m.4	+15°28'.6	6	6'
TEUTSCH J 1714.3+1718	Asterism	17h14m.3	+17°18'.1	13	2.2'
IC 4645	Galaxy	17h14m.7	+43°06'.2	15.3	0.4'×0.4'
NGC 6341 Messier 92	Globular Cluster	17h17m.1	+43°08'.2	6.4	11.2'
Dolidze- Dzimselejsvili 8	Open Cluster	17h26m.4	+24°11'.6	6.2	14'
MARKOV 1	Open Cluster	17h57m.2	+29°29'.2	6.8	15'
WEBB'S WREATH	Open Cluster	18h02m.3	+26°18'.0	10	5.5'
Dolidze- Dzimselejsvili 9	Open Cluster	18h08m.8	+31°32'.2	10.5	28'



At the Eyepiece - April 2023

by Ray Field

The Moon will be full and near Spica on the 6th, Last quarter on the 13th, New on the 20th and First quarter on the 27th. The Moon is near Regulus in Leo on the 2nd, occults gamma Virginis on the 5th (this star is very close double) between 18:23 and 19:24. The Moon is near Spica on the 6th, Antares on the 10th, Saturn on the 16th, Neptune (very faint) on the 17th, Jupiter on the 19th (very close to the Sun), near Mercury and Uranus on the 21st (very close to the Sun), near the Pleiades on the 22nd (very close to the Sun), near Venus at noon in daylight, near Venus at noon on the 24th, near Mars and Pollux on the 26th and near Regulus again on the 29th.

Mercury is very close to the Sun this month, in the evening twilight and is not suitably placed for observation this month.

Venus sets at about 20:00 in the evening twilight over the West. It is a very bright object and has phases like our Moon.

Mars, the red planet, is a fairly bright object in the evening sky this month in the constellation of Gemini, and it sets between 23:00 and 22:00 this month. In a telescope it shows as a disc with one or two of the polar ice caps. I have seen the polar ice caps in my 150mm and 200 mm reflectors. (Mars is the only planet populated by robots).

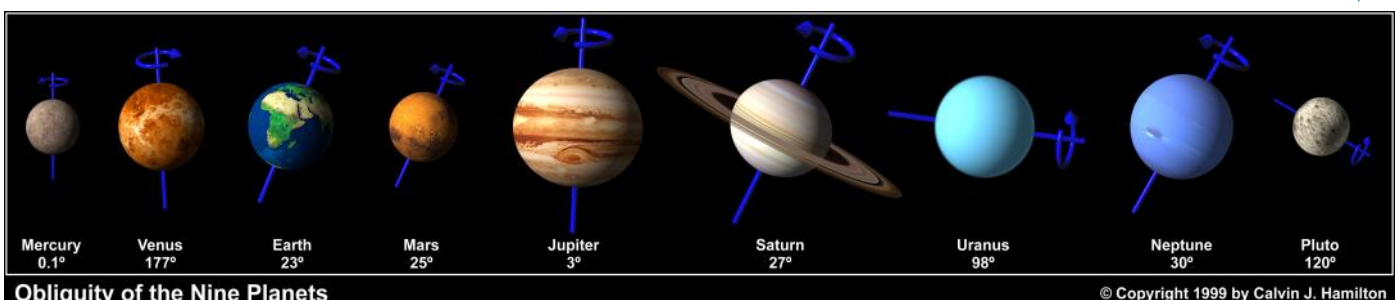
Jupiter, a very bright planet in Pisces this month, unfortunately it is not favourably placed for observation, being too close to the Sun. It sets in the morning twilight between 05:00 and 06:00.

Saturn rises between 03:00 on the 1st to 01:00 at the end of the month. It lies in the constellation of Aquarius this month.

Uranus is in Aries this month but is not well placed for observation.

Meteor showers. Two showers reach their maximum this month. They are the April Lyrids, max date is 23rd April, active from 14th April to 30th April and a Zenithal Hourly Rate (ZHR) of 18 per hour under favourable viewing conditions. Time to watch is from 02:00 to 05:00. Their radiant is 34° North and R.A. 18hr 05m. The pi Puppids have a ZHR of less than 5 per hour and the time to watch is from 19:00 to 23:00. Their radiant is 45° South and their R.A. is 07hr 20m. See pages 84 and 85 of the ASSA Sky Guide 2023.

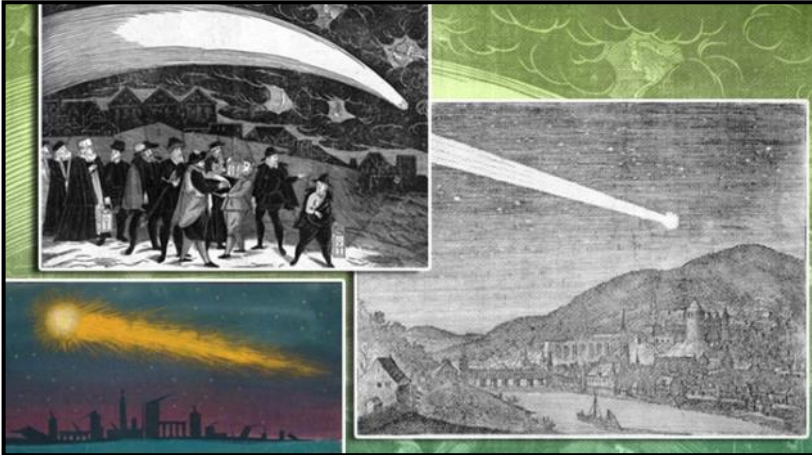
The starry sky from Durban for April 2023. In the early evening, the Southern Cross is still rising over the South East with the "3 crosses" region above and to its right. Canopus, the 2nd brightest star in the sky, is above the South and Achernar is setting in the South West. Orion, with Sirius to its right is setting over the North West. Leo is low over the North and the twins, Castor and Pollux, are below Sirius and Procyon. Virgo is rising over the East.



Before Comet Neowise, when these Celestial Visitations were seen as Harbingers of Doom

By Adrija Roychowdhury

The Greek philosopher Aristotle believed that comets could be used to forecast draught, earthquakes, and prodigious rains.



LEFT: Image: Wikimedia Commons

For much of human history, comets were viewed with fear and awe.

In the early months of 1066 CE, a brilliant comet was seen circling the earth. It happened to occur almost at the same time as that when Edward the Confessor, the very popular king of England, died, and the Crown

passed over to Harold Godwinson. Not being the natural heir of Edward, the accession of Harold failed to get the approval of the Papacy. A few months later, when an artistic depiction of the coronation of Harold was made in the famed 70 meters long Bayeux Tapestry, it interestingly showed the members of the congregation gazing with unease at the comet in the sky, in anticipation of the doom to come. (see tapetry details on <https://www.lpi.usra.edu/meetings/metsoc2002/pdf/5125.pdf>



ABOVE: 70m Bayeux Tapestry - Image: Wikimedia Commons

Sure enough, England was indeed met with doom soon after, as the Battle of Hastings, fought in the month of October in 1066 led to the overthrow of Harold by William, the Duke of Normandy, and thereby caused the end of the Anglo-Saxon dynasty. The conquest by William ushered England into a long phase of widespread destruction and servitude. Yet, amidst all of this, what came to be seen as divine prophecy of the event was the comet seen earlier that year.

Contemporary chronicler Eilmer of Malmesbury prophesied from the sight of the comet in the fearful words: "You've come, have you? – You've come, you source of tears to many mothers. It is long since I saw you; but as I see you now you are much more terrible, for I see you brandishing the downfall of my country."

Interestingly, in 2020, as the world battles one of the worst pandemics of the century, yet another brilliant comet has made its appearance. Officially designated as C/2020 F3, Comet NEOWISE, is believed to be the brightest comet in a generation, the last one of such kind having visited the earth 23 years back in 1997.

...Harbingers of Doom

Interestingly, in 2020, as the world battles one of the worst pandemics of the century, yet another brilliant comet has made its appearance. Officially designated as C/2020 F3, Comet NEOWISE, is believed to be the brightest comet in a generation, the last one of such kind having visited the earth 23 years back in 1997.



LEFT: Comet NEOWISE - Image Source: AP

Though scientific research has revealed much about the frozen solar system bodies that melt and turn into glowing bodies as they approach the sun, for much of human history, comets were in fact viewed with fear and awe.

The fourth century BCE Greek philosopher, Aristotle had his own take on the visitations: “So when comets appear frequently and in considerable numbers,

the years are notoriously dry and windy.” He went on to emphasise that comets could be used to forecast draught, earthquakes, and prodigious rains. Later philosophers went on to connect diseases, wars, treachery, civil discord, and a lot more to the sighting of comets. It’s only from the 16th century on that we find comets being observed from a scientific lens.

Harbingers of bad luck

The ancient Babylonians, Greeks and Romans laid the foundation of the first ideas on comets and their capacity as portents of ill luck. *“Without a doubt, the most ancient theory of comets was that of Aristotle,”* writes historian of science, Sara J. Schechner, in her book, *‘Comets, popular culture and the birth of modern cosmology.’* Aristotle’s understanding of the physical nature of comets, was deeply rooted in his interpretation of the astronomical bodies having ominous significance.



Image Source: Wikimedia Commons

“He reasoned that comets must be fiery meteors because they heralded severe winds, drought, tidal waves, storms, earthquakes, and stones falling from the sky... These exhalations parched the air and disintegrated moist vapours, causing drought and windy weather. Severe winds heaved enormous stones into the air, churned the ocean, and heaped up tidal waves, whereas windy exhalations trapped within the earth rumbled below ground until they were vented in violent earthquakes,” writes Schechner. Aristotle then backed up his theory with evidence of instances in the past centuries when the visitation of a comet was followed by some form of natural disaster.

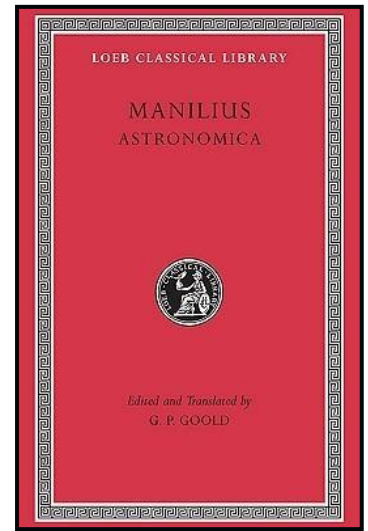
...Harbingers of Doom

Roman poet Marcus Manilius, who lived in the first century CE and wrote the poem 'Astronomica', went further and commented that comets were the harbingers of war, pestilence, destruction and treachery. He insisted that God sent comets as "tokens of impending doom".

"The connection between comets and the downfall of princes may have originated with Babylonian astronomers, who practised astrology as a vital part of statecraft," writes Schechner. But the view of comets heralding political disruptions continued well into the medieval period in Europe.

In 1456, when a great comet appeared, Christian Europe was terrorised. We know today that what appeared then was nothing but the return of the Halley's comet. At that point, however, the Papacy was convinced that it was a bad omen, and was fearful of what it meant for the future of Constantinople, which had by then fallen to the Ottomans.

Accordingly, Pope Callixtus inserted a heartfelt plea in the Ave Maria: "From the devil, the Turk and the comet, Good Lord, deliver us."



Astronomer Carl Sagan and scientist Ann Druyan, in their book "Comet", recollected the battle between the Venetians and Turks: "A later historian described the battle in these words: 'The Franciscans, unarmed, crucifix in hand, were in the front rank, invoking the papal exorcism against the comet.'" Constantinople though, was never recovered by the Christians.

The awe expressed towards comets extended beyond the borders of Europe. In Africa, the comet meant different things to different tribes. "To the Masai of East Africa, a comet meant famine; to the Zulu of South Africa, war; to the Eghap of Nigeria, pestilence; to the Djaga of Zaire, specifically smallpox; and to their neighbours, the Luba, the death of a leader," write Sagan and Druyan.

"The conquest and plunder of Mexico, and the annihilation of the Aztec civilisation, were in some significant measure due to a fatalistic dread of comets," they explain further about the experience of comets in southern America.

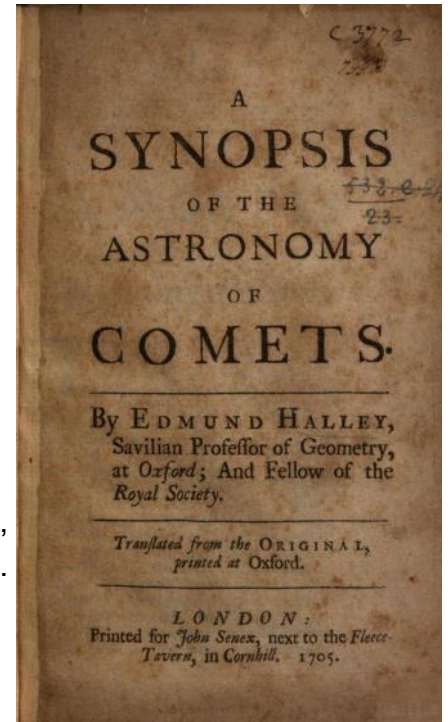
Ancient Indian Puranic literature as well as chronicles from the Mughal era too have frequent references to comets. In most instances, they are followed by some sort of magnificent event. "A severe earthquake occurred in February 1705 in Gujarat. A few days later there was widespread rainfall of red colour. At the same time, a comet appeared and was visible for 15 days. This was taken to pressage the death of Aurangzeb," writes scientist and civil engineer R N Iyenger describing how the traveler Nicolai Manucci observed the comet in his 17th-18th century account of Mughal India.

It is important to note though, that the myth of comets played an important role in political propaganda. "Consequently, political aspirations were often expressed in astrological language," writes Schechner. As the playwright William Shakespeare noted in a couple of his plays, "when beggars die there are no comets seen; the heavens themselves blaze forth the death of princes."

...Harbingers of Doom

Scientific interventions

Things began to change from the 18th century. The English astronomer, Edmund Halley, used Newton's theory of motion to produce 'A synopsis of the astronomy of comets'. He reached the conclusion that the three comets that had been sighted in 1531, 1607 and 1682 were actually the same object. He concluded that comets were objects that orbited the sun and dashed across the earth every 76 years. Accordingly, he predicted that the next comet would appear in 1758 or 59. Though he did not live to see it, the comet did appear in December 1758 and was named after him.



ABOVE: Edmund Halley's Synopsis - Image: Google Books

LEFT: 1986 Image of Halley's Comet - Image credit: NASA)

After, more scientific research revealed that the Halley's comet had been visiting Earth from much earlier, with the earliest sighting being as early as the 5th century BCE.

Even after Halley's analysis though, comets continued to be viewed with caution. In 1910, when the Halley's comet was approaching earth, French astronomer Camille Flammarion detected cyanide in its tail, which caused a lot of panic. The New York Times quoted him saying that the gas would "impregnate the atmosphere and possibly snuff out all life on the planet." His views, however, were largely shunned by scientists.

Last time a Halley's comet visited the earth was in 1986, and by then it received a lot of scientific attention. Sophisticated technology and high-powered telescopes were used to study them minutely. It will return in 2061 on it's regular 76-year journey around the Sun.

Discovered on March 27, 2020 by NASA's Near-Earth Object Wide-field Infrared Survey Explorer (NEOWISE) mission, Comet NEOWISE is putting on a dazzling display for skywatchers before it disappears, not to be seen again for another **6,800 years**.

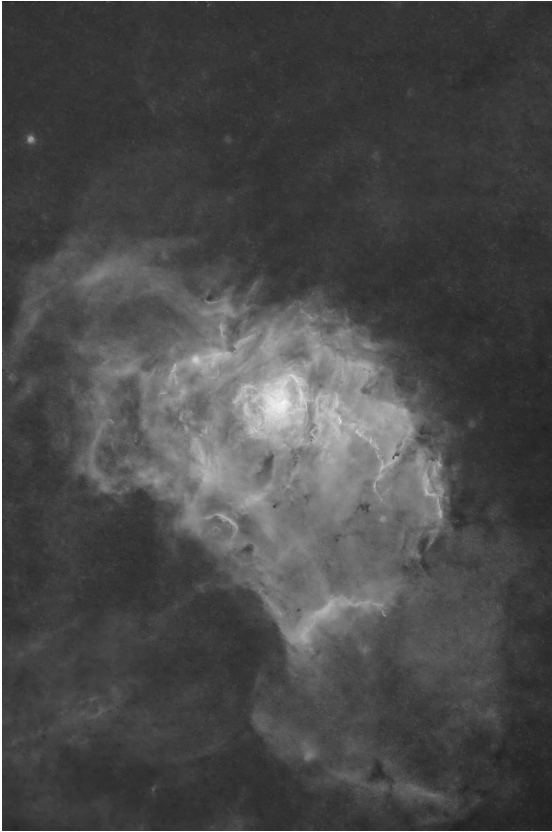


ABOVE: Comet Neowise - Image source: wikipedia.org



The Cover Image - The Lagoon Nebula

by John Gill



The Lagoon Nebula (catalogued as Messier 8 or M8, NGC 6523, Sharpless 25, RCW 146, and Gum 72) is a giant interstellar cloud in the constellation Sagittarius. It is classified as an emission nebula and as an H II region.

The Lagoon Nebula was discovered by Giovanni Hodierna before 1654 and is one of only two star-forming nebulae faintly visible to the eye from mid-northern latitudes. Seen with binoculars, it appears as a distinct cloud-like patch with a definite core. Within the nebula is the open cluster NGC 6530.

The Lagoon Nebula is estimated to be between 4,000–6,000 light-years away from the Earth. In the sky of Earth, it spans 90' by 40', which translates to an actual dimension of 110 by 50 light years. Like many nebulae, it appears pink in time-exposure color photos but is gray to the eye peering through binoculars or a telescope, human vision having poor color sensitivity at low light levels. The nebula contains a number of Bok globules (dark, collapsing clouds of protostellar material), the most prominent of which have

been catalogued by E. E. Barnard as B88, B89 and B296. It also includes a funnel-like or tornado-like structure caused by a hot O-type star that emanates ultraviolet light, heating and ionizing gases on the surface of the nebula. The Lagoon Nebula also contains at its center a structure known as the Hourglass Nebula (so named by John Herschel), which should not be confused with the better known Engraved Hourglass Nebula in the constellation of Musca. In 2006, four Herbig–Haro objects were detected within the Hourglass, providing direct evidence of active star formation by accretion within it.

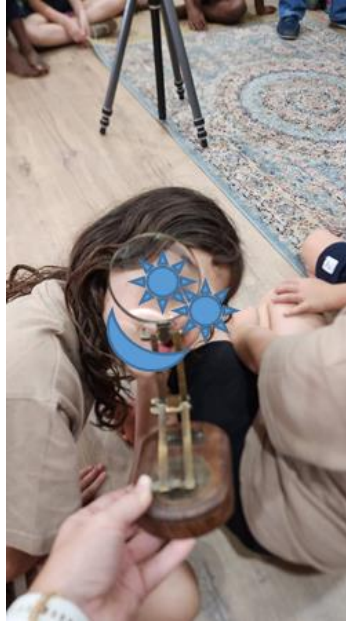
This image of the Lagoon Nebula was captured with a Sulphur ii Filter on an APM 107/700 telescope on a CGX mount and QHY268m camera. Total integration time was just over 7 hours. Processed in PixInsight.

THE OTHER COAST



ASSA Education Events

RIGHT: Ambleside School of Durban - Piet Strauss gave a talk to learners at a school based in Durban North. They wanted to learn about telescopes. Piet took it from a magnifying glass right through to a telescopes construction - optical only. The learners then all got a chance to see a distant object through a telescope.



LEFT: Sihle Kunene and Piet Strauss gave another talk with a demonstration to a group of learners about different types of telescopes and lenses during their Astronomy class.



ASSA Durban - Upcoming Events

Coordinated by Sheryl Venter

20 May – Star Party At Farm Adventures, Mtunzini

Privately arranged public event (not an official ASSA event). In 2022, members who took their telescopes and gave a presentation in their private capacity, especially enjoying the vegan food and dark skies. There is an entry fee for this event. The advert will be circulated when we receive it.

15 July – Star Party At Monteseel Conservancy, Drummond

Our annual fundraising event in partnership with Monteseel Conservancy. The society share the gate takings with the conservancy due to members setting up telescopes and assisting those present. All members welcome to attend this open air star party. Bring telescopes, binoculars and lasers and be a member of the ASSA Durban Centre Star Party Team. Dark skies, fresh air and a wonderful family atmosphere with camp fires and picnic blankets. Advert to be circulated later. Please contact Sheryl should you like to help out. And assist.

21 July – Star Party At St Henrys Marist School, Glenwood

For scholars and their families only. Star Party Team Members will be appreciated. More information later.

1-10 September – Trees And Seas Festival At Beachwood Mangroves, Durban North.

We have been asked to host an Astronomical Evening during the festival. Specific date still to be determined. Star Party Team members.



Librarian's Update

Hello Members,

We have uploaded our first small selection of books into our "virtual library"

<https://drive.google.com/drive/folders/1MCqmoKopNej2vt5txD5TDZGc8o34WitH?usp=sharing>

It's just a few for now, but there are some interesting and excellent titles in there.

The plan is to grow this into a comprehensive multimedia resource. If anyone has any books or videos they would like to add, please PM me, or email to Claire@astronomydurban.co.za

Please feel free to download and enjoy. They are for personal (non-commercial) use only.

Happy Reading!

Claire

ASSA DBN Librarian



For Sale

Intes-Micro 152mm F5.9 Mak-Newt



Tripod and extensions

APM or Explore Scientific eyepieces – 20, 13, 9, 5.5 and 3.5 mm

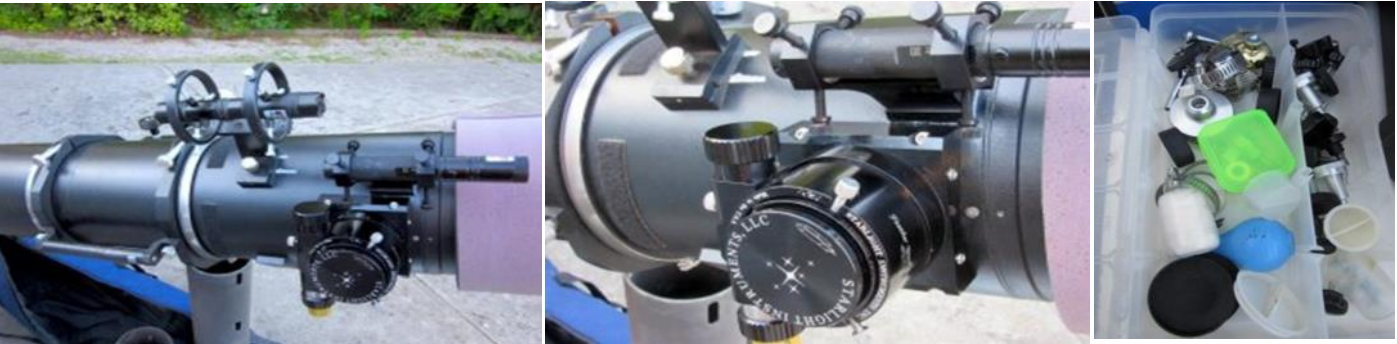
2 x Laser finders and battery rechargers

Celestron 2-inch UHC filter

Orion padded telescope case

Orion laser collimator

Cheshite tube



The telescope is nearly perfectly collimated and I haven't had to recollimate in the last 7 years. The Intes-Micro 152mm scope has its original shipping papers and documentation from Orion (where it was marketed under the "Argonaut" badge.)

It gives a perfect Airy disc and partial first diffraction ring at 257x in the 3.5mm 100° eyepiece — at that power the Trapezium looks like the Pleiades to the naked eye.

The secondary is only 21% of the primary diameter, which makes it a superb lunar and planetary scope with minimal contrast loss due to secondary shadow.

It is a perfect startup system for a newcomer

Price R 24 000

Dana de Zoysa – 083 347 0856 – danadezoysa@gmail.com



For Sale

Orion Sky Quest -XT12i

<https://www.telescope.com/Orion-SkyQuest-XT12i-IntelliScope-Dobsonian-Telescope/p/102014.uts>

This clever push-to Dobsonian reflector telescope can lead you to more than 14,000 celestial objects with its included IntelliScope Computerized Object Locator. This is a fantastic scope for close planet observation, and best for deep sky objects.

12" aperture f/4.9 reflector telescope gathers enough light for bright close-up views of the Moon and planets.

A big reflector telescope provides sharp views of faint deep sky objects like galaxies, nebulas and star clusters. Simple Dobsonian point-and-view ease of use plus IntelliScope smarts equals a telescope for a lifetime.

Includes 2" Crayford focuser, two Sirius Plossl 1.25" eyepieces, a 9x50 right-angle correct-image finder scope.

Added accessories:

- Laser collimator - worth R 1 300
- GSO Moon filter ND96-0.9
- Orion variable Universal Camera adapter with connector ring for a Canon DSLR
- Orion SHORTY 2X Barlow lens

The last price for this scope on Eridanus Optics was R 37,525

Asking Price: **R 22 000** with all accessories included

Please call Clint on **083 553 2880** to arrange a purchase.



Celestron 114LCM Scope, "GoTo" Mount & Case



Equipment includes:

- 3 x eyepieces
- Barlow
- External battery,
- Laser pointer
- Travel case

Equipment location - Durban

Contact John Gill for information:

- **John Gill 083 378 8797**
- John.Gill013@gmail.com

Price: R 6 000





Public Viewing Roster ASSA Durban



Dome Master	Email	Assistant	Telescope Volunteer	Public Viewing
Alan Marnitz	alan@astronomydurban.co.za	TBC	TBC	21st April
Alan Marnitz	alan@astronomydurban.co.za	TBC	TBC	19th May
Alan Marnitz	alan@astronomydurban.co.za	TBC	TBC	16th June
Alan Marnitz	alan@astronomydurban.co.za	TBC	TBC	14th July

PUBLIC VIEWING:

Public viewing is on site at the Marist Brothers St Henry's School in the dome and around the pool area; usually the first Friday evening closest to the New Moon.

Please note there is a roster with a booking system. Once the number of telescopes are confirmed, Individuals will be contacted to confirm dates and times. Please book your place!!!

NOTIFY OBSERVATORY MANAGER:

Members interested in attending the above viewing evenings and/or becoming involved in assisting with the viewing evenings, please send your names to Alan Marnitz on cell number 082 305 9600, or via email: alan@astronomydurban.co.za

VOLUNTEERS REQUIRED:

Volunteers to please identify which role you are willing to assist with, Dome Master, Viewing Assistant or a Telescope Volunteer. After which, attendance will be confirmed and viewing dates will be announced.

Viewing Assistant - Learning about the new telescope, assisting with the viewing evenings and viewing members as required.

Telescope Volunteers - Members willing to bring their telescopes to the viewing evenings to set up around the pool for public viewing.

VOLUNTEERS TUTORIAL:

John Gill to organise another afternoon / evening to train volunteers as Dome Masters and the use of the large telescope. Date to be confirmed and viewing dates will be announced

Viewing Contact:	Phone	Email
Alan Marnitz	082 305 9600	alan@astronomydurban.co.za



ASSA Durban Minutes of General Meeting



8 March 2023 - 19:30 via Zoom

1. Welcome to Dbn (and later, Jhb) members
 - Debbie Able welcomed Durban members at 19:00
2. Present as per recording
 - Several members of Dbn and Jhb attended.
 - Some Dbn members joined at 19:30.
 - Dbn and possibly a few Jhb:
 - John Gill, Chris Stewart, Gerald de Beer, Sheryl Venter, Moya O' Donoghue, Peter Dormehl, Yesen Govender, Ooma Rambilass, Jean Senogles, Jack, Phuti Mosomane, Shiraaz Abrahams, Maryanne Jackson, Corinne Gill, Michel Benet, John Viljoen

Apologies: Piet Strauss, Graham Alston, Robert Suberg, Mike Hadlow, Mike Watkeys
3. Confirmation of previous meeting minutes and matters arising
 - Gerald confirmed
4. NASA report back and month ahead
 - Piet Strauss not available (no power or wi-fi)
5. Treasurer's report
 - Still to change signatories on account (Friday?)
 - Our Durban North branch has reopened after renovations
 - Corinne provided finance figures to include in minutes
 - Current Account R 28 700.00
 - Investment Account R 64 620.59
6. Event
 - Introduction to Astronomy course – looking at July school holidays as hall may be available most days. 2 days / week to fit into holidays. Mix of on line and in person.
 - Weekend away with geology and 4x4 groups : 16 – 18th June 2023 – no further details yet
 - 17 March – Ambleside School talk (Piet) – probably during school hours
 - 16 June / 15 July (weather depending) – Monteseel community viewing – need ASSA team and ≥3 telescopes; someone to give short talk
 - 21 July – St Henry's pupils viewing
 - Home school group interested in a viewing – date not confirmed yet.
 - Environmental Awareness Week – 18 – 25 March? No central venue – societies advertise own events within Week's calendar. Suggest solar scope on opening day (18/3) at Green Hub (Umgeni estuary). Sheryl Venter explained.
 - Mtunzini – possibly on 20 May.
 - Preston Estate also enquired about an organised event.
 - More members needed to assist with events
7. 'nDaba
 - E- mail has been sent to all members asking for feedback o the 'nDaba; please send constructive comments to Corinne@astronomydurban.co.za

...General Meeting Minutes

8. Observatory
 - Desperately seeking viewing teams;
 - Need to train new support crews.
 - John Gill offered to give an overview of the scope on Sunday 12 March

9. General
 - Sky Guides – a few still available
 - Library books – many outdated and most never looked at; no longer have cupboard as storage. Suggestion to sort and give age relevant ones to schools; sell or give away the rest. No objections from members.
 - Other 'archive' documents – anyone with time on their hands and a good quality scanner to volunteer to scan in old documents.
 - No update on refunds for ASSA trip that never happened to Sutherland.
 - Corinne Gill noted Ritva Orsmond requested feedback on the money due to her for the double seats booked for Sutherland. Banking details were given to Piet Strauss.
 - FZ to write a formal response which may be shared.
 - Bank access for new treasurer to be signed by other signatories

10. Speaker - Yesen Govender (ASSA Dbn) started at 19:30:
 - NASA's Artemis mission back to The Moon.
 - Joined by members from ASSA – JHB
 - Talk concluded at 20:10 and Yesen answered questions of the members

11. Meeting adjourned at 20:15

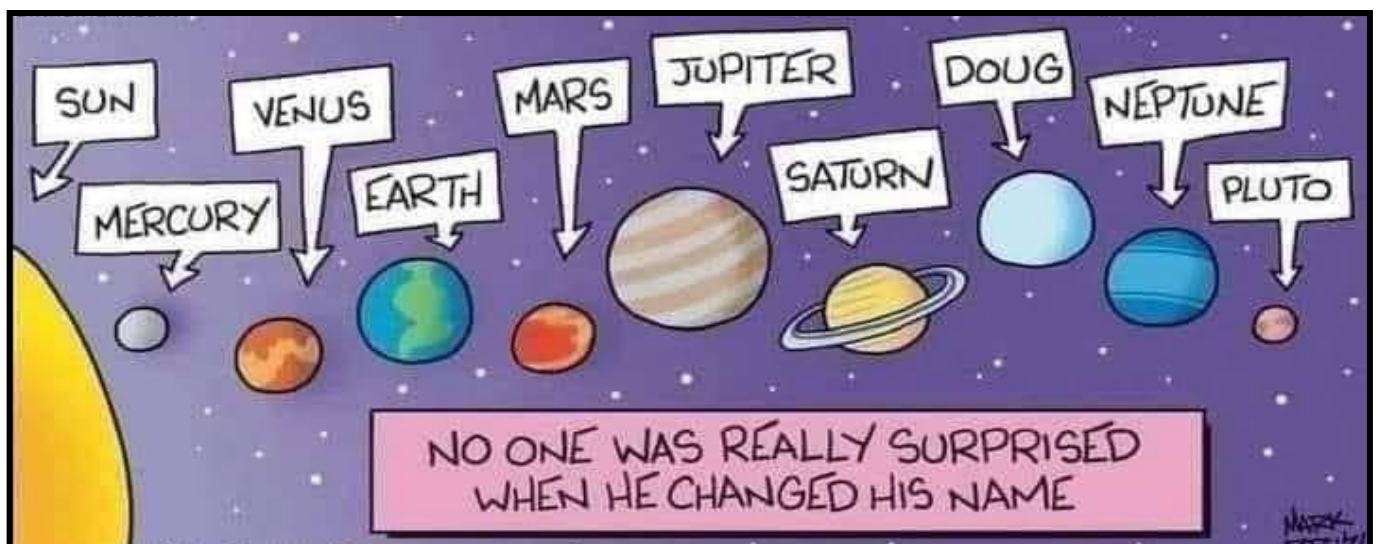
ASSA DURBAN ZOOM MEETING

Join Zoom Meeting

<https://us02web.zoom.us/j/88037701479?pwd=UU5xMUFjYWVWUUtMWTd1Y1I2ZDNQdz09>

Meeting ID: **88037701479**

Passcode: **297674**



Notice Board

MEETINGS:

- GENERAL MEETING to be held on **12th April 2023** via Zoom <https://us02web.zoom.us/j/88037701479?pwd=UU5xMUJfbWVlVWUtd1Y1I2ZDNQdz09> @ **7:00pm or as notified.**
- PUBLIC VIEWING MEETINGS - please refer to website under the tab "Viewing and Events" for any updates with regards dates & public viewing, please click here: <https://astronomydurban.co.za/events-viewing/>

MNASSA:

- Monthly Notes of the Astronomical Society of Southern Africa.
- Available at www.mnassa.org.za to download your free monthly copy.

NIGHTFALL:

- Fantastic astronomy magazine. Check it out on the ASSA national website
- assa.saao.ac.za/about/publications/nightfall/

MEMBERSHIP FEES & BANKING:

- Membership Subscriptions were due on the 2022-07-01 for the 2022-2023 financial year. PLEASE pay outstanding subscriptions fees.
- Please pay Subscription fees via EFT - Banking details below.



Membership fees indicated below:

- Single Members: **R 190:00**
- Family Membership: **R 230:00** for family membership.
- Under 18 members: **Free to join meetings**
- Cash/Cheques: **Please note: NO cheques or cash will be accepted - Cash deposits incur bank charges**
- Account Name: **ASSA Natal Centre**
- Bank: **Nedbank**
- Account No. **1352 027 674**
- Branch: **Nedbank Durban North**
- Code: **135 226**
- Reference: **SUBS 22-23 SURNAME and FIRST NAME**
- Proof of Payment: treasurer@astronomydurban.co.za

SKY GUIDE 2023 - Limited number available !!!

- Contact: Mike @ Mike@astronomydurban.co.za
- Price: **R 100.00**
- Reference when paying: **SG 2023 SURNAME and FIRST NAME**



RESIGNATIONS from ASSA:

Please send an email immediately notifying the Secretary at secretary@astronomydurban.co.za stating your wish to resign from the society.

COMMITTEE POSITIONS & CONTACTS:

• Chairman	Debbie Abel	Debbie@astronomydurban.co.za
• Vice Chair	TBC	
• Secretary	Francois Zinserling	Secretary@astronomydurban.co.za
• Treasurer	Francois Zinserling	Treasurer@astronomydurban.co.za
• Guest Speaker Liaison	Piet Strauss	Piet@astronomydurban.co.za
• Observatory & Equipment	Alan Marnitz	Alan@astronomydurban.co.za
• Observatory Assistant	TBC	
• Publicity & Librarian	Claire Odhav	Claire@astronomydurban.co.za
• Out-Reach - Public	Cheryl Venter	Sheryl@astronomydurban.co.za
• Out-Reach - Schools	Sihle Kunene	Sihle@astronomydurban.co.za
• St. Henry's Marist College Liaison	Moya O'Donoghue	Moya@astronomydurban.co.za
• 'nDaba Editor	John & Corinne Gill	John@astronomydurban.co.za
• Website & Facebook	John Gill	John@astronomydurban.co.za

ELECTRONIC DETAILS:

- Website: www.astronomydurban.co.za
- Emails : AstronomyDurban@gmail.com
- Instagram: <https://www.instagram.com/astronomydurban/>