# Week 1: THE BEARS (URSAS) URSA MAJOR (GREAT BEAR) & URSA MINOR (SMALL BEAR)

# Mythology of the constellations Ursa Major and Ursa Minor

Artemis, the moon goddess, was followed by a band of beautiful nymphs, all swom to a vow of chastity. One of the most lovely of these was Callisto. She was espied by Zeus, a god with a particular fondness for mortal women, on one of his many visits to earth. Disguising himself as Apollo, brother of Artemis, he overcame any scruples Callisto may have had and they became lovers. Eventually, Callisto was delivered of a son, and he was named Arcas (from the Greek arktos or "bear"). Knowing that Artemis would be furious with Callisto for breaking her vow, and more especially to shield her from the wrath of his wife, Zeus changed his unfortunate lover into a bear. She was forced into a lonely exile, roaming the forests and hiding from human hunters. At the same time, she was unable to form any close friendships with the animals because she still possessed human feelings. Many years later, her now fully-grown son Arcas was hunting in the woods when he saw a great bear which was, in fact, his own mother. As he lifted his bow and arrow to shoot her, Zeus quickly intervened, and changed Arcas into a little bear so that he immediately recognised his mother. The story has a happy ending as, lonely no more, Callisto and her son were transported to the heavens, thereafter to be known as the Ursa Major and Ursa Minor.

Ursa Major stars  1. Dubhe (the Bear)	Magnitude 2.0	yellow
2. Merak (the Loin of the Bear)	Magnitude 2.5	greenish white
3. Phecda (the Thigh)	Magnitude 2.5	topaz yellow
4. Megrez (the Root of the Tail)	Magnitude 3.6	pale yellow
5. Alioth (Fat Tail)	Magnitude 2.1	
6. Mizar (a Girdle)	Magnitude 2.1	brilliant white
7. Alcor (Neglected One because noticeable onl	y by a sharp eye. Magnitud	le 4.8
8. Alkaid (the Chief of Mourners)	Magnitude 1.9	brilliant white
9. Muscida (the muzzle of an animal)	Magnitude 3.5	
10. Talitha (the third leap of the Gazelle)	Magnitude 3.2	topaz yellow
11. Tania Borealis (the second leap of the Gaze	lle (north)) Magnitude 3	red
12. Tania Australis (the second leap of the Gaz	elle (south)) Magnitude 3	.7 red
13. El Kophrah		
Ursa Minor stars 1. Polaris (Pole-star)	Magnitude 2.2	topaz yellow

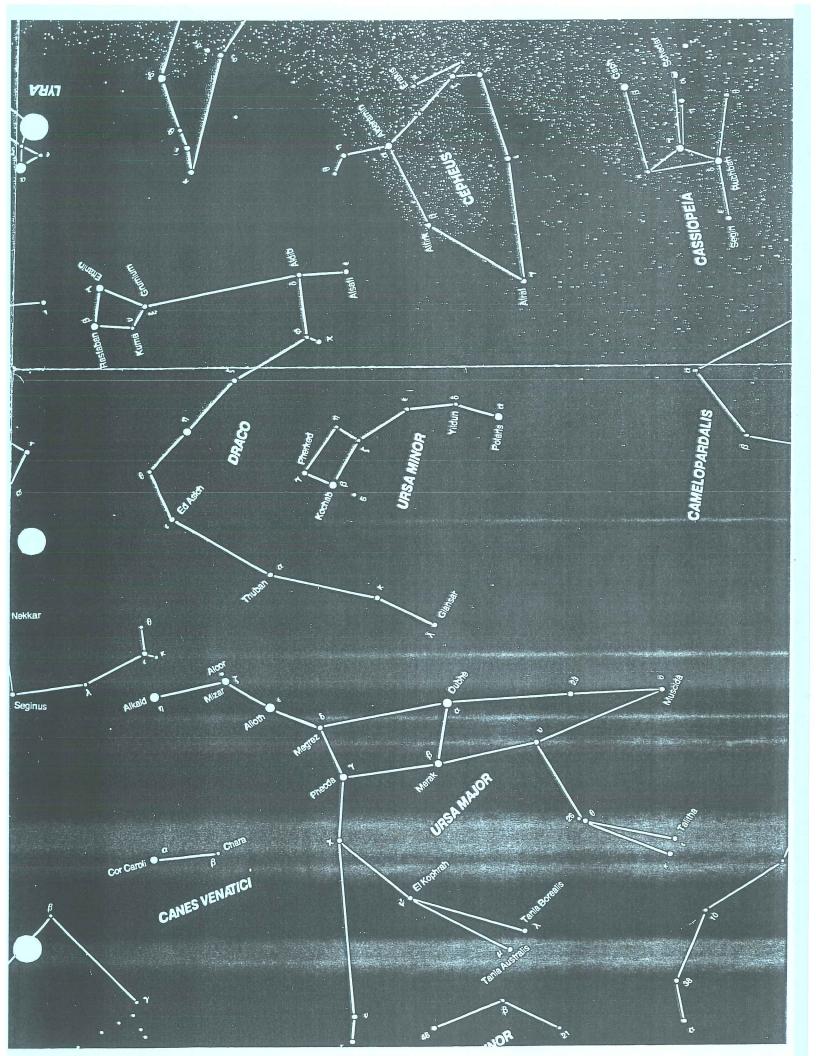
2. Kochab (the Bright One)

3. Pherkad (the Dim One)

Magnitude 2.0

Magnitude 3.3)

reddish



# SPASH ASTRONOMY – WEEK 2 DRACO, CEPHEUS, CASSIOPEIA

### Mythology of the constellation Draco

As with so many constellations, there is no one definite mythological dragon represented by DRACO, but rather several possibilities, including that of the Biblical serpent that tempted Eve in the Garden of Eden.

Another version concerns the war between the Titans and the gods of Mount Olympus. Legend has it that the extremely fierce Titans, who had feet resembling serpents' tails, attempted to free some of their brothers, imprisoned by Zeus, by hurling rocks from mountain tops at the gods. After a prolonged battle, Athena, goddess of wisdom, stepped in. She grabbed one of the Titans and threw him into the heavens, where he remains to this day.

Legend also connects DRACO to the dragon which appears in the story of one of the labours of Hercules. His task was to steal the golden apples from a tree given by Gaia to Hera on the occasion of her marriage to Zeus, a task of great difficulty since the tree was guarded by a monstrous, hundred-headed dragon. Hercules eventually overcame the problem, killing the dragon with his spear and then enlisting the help of Atlas. Condemned to carry the world on his shoulders as a punishment, Atlas willingly undertook to gather the apples in return for Hercules taking over his burden for a short while. A final tale suggests that DRACO represents the dragon killed by Cadmus, brother of Europa. After his sister had been abducted by Zeus, disguised as a bull, Cadmus was ordered by his father to go in search of her and not to return without her. After travelling the whole world without success, and unable to return to his homeland, Cadmus decided to build a new city near to a cave with several springs. However, when his companions entered the cave to collect water, they were all killed by a fearsome dragon that lived there. Cadmus then went into the cave alone and managed to slay the creature with his spear. He was ordered by the goddess Athena to plant the dragon's teeth in the ground, and from these teeth grew warriors who fought with each other until only five were left standing. These remaining five, together with Cadmus, became the founders of the city of Thebes.

1. (alpha) Thuban (Arabic title for the whole of Draco)	magnitude 3.6	pale yellow
2. (beta) Rastaban (the Dragon's Head)	magnitude 2.78	yellow
3. (gamma) Eltanin (also means the Dragon's Head)	magnitude 2.22	orange
4. (lambda) Giansar (the Central One, as it is nearly midway	between the Pointers magnitude 4.1	and Polaris) orange
5. (xi) Grumium (the Dragon's under jaw)	magnitude 3.8	yellow

# Mythology of the constellation Cepheus

This constellation represents King Cepheus of Ethiopia. Although probably best known as the husband of Queen Cassiopeia and father of Andromeda, he was also one of the Argonauts who travelled with Jason in search of the Golden Fleece. On this epic journey he was accompanied by either one or several of his sons (there are differing accounts as to the number).

1. (alpha) Alderamin (the Right Arm)	magnitude 2.5	white
2. (beta) Alfirk (the king)	magnitude 3.3	white
3. (gamma) Alrai (the Shepard)	magnitude 3.5	yellow

4. (delta) Delta Cephei is one of the most famous of the variable stars. All stars that change their brightness like Delta Cephei are called "cepheids". Stars like this are actually pulsating themselves unlike the variables that vary because of a revolving companion moves in front of it. Delta Cephei changes its brightness from to 3.6 to 4.3 in 5 days 8 hours and 48 minutes. Delta Cephei (like all the cepheids) is a supergiant. The importance of cepheids is that once their absolute and apparent magnitudes are determined their distance is easy to figure out. The first Cepheid discovered in what was thought a star cluster in Andromeda turned out to be over 2.5 million light years away, thus galaxies were discovered. Thus cepheids are called the "measuring sticks of the universe". Delta Cephei is a little over 1000 LY away from us.

# Mythology of the constellation Cassiopeia

Cassiopeia, the wife of King Cepheus, ruler of Ethiopia, was beautiful, arrogant and vain, and it was these latter two characteristics which were to lead to her downfall. Her continual boast that both she and her daughter Andromeda were more beautiful than the sea nymphs, daughters of Nereus, the sea god, brought the wrath of Poseidon, ruling god of the sea, upon the kingdom of Ethiopia. (Differing accounts state that either Cetus, the sea monster, on Poseidon's instructions, was to destroy the land, or that the whole country was to be flooded.) Trying to avert such a fate, Cepheus and Cassiopeia consulted a wise oracle, who told them that the only way to appease the sea gods was to sacrifice their daughter. Accordingly, Andromeda was chained to a rock at the sea's edge, and left there to helplessly await her fate at the mercy of the sea monster. But Perseus arrived in time and saved Andromeda. Poseidon considered that Cassiopeia should not escape punishment entirely, and placed her in the heavens in such a position that she circles the celestial pole in an upside-down position for half the time.

1. Schedar (alpha) (the breast)

magnitude 2.2 to 2.8

pale rose

2. Caph (beta) (on the upper right-hand corner of the chair means queen) note also a line through Caph and Polaris is very close to 0hr Right Ascension

magnitude 2.4

white

3. (gamma Cassiopeia) (in Cassiopeia's girdle, was the Chinese Tsih, a Whip)

magnitude 2.0

brilliant white

4. Ruchbah (delta) (the Knee)

magnitude 3.0

color?

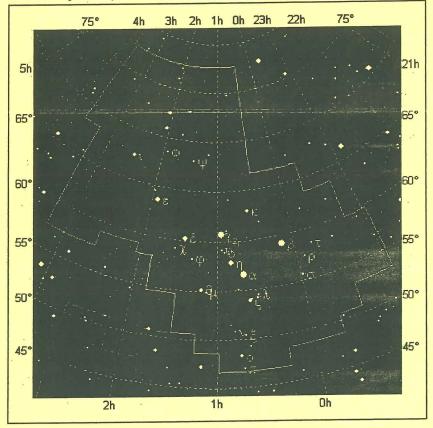
5. (epsilon Cassiopeia) (nearer the foot)

magnitude 3.38

6. (lambda and zeta) (mark the face of Cassiopeia)

7. SEGIN (Epsilon Cassiopeiae). At the eastern end of the "W" that makes Cassiopeia, and at the top of her "Chair," lies third magnitude (3.38) Epsilon Cassiopeiae, appropriately the fifth brightest star in the constellation. The star is a sparkling blue-white class B (B3) giant, but is sometimes listed as a peculiar B3 dwarf. At least the distance of 440 light years is fairly secure | Home | Help|

Cassiopeia (The Queen and Wife of Cepheus)





# Bootes, Hercules, Lyra, Cygnus, Aquila

# Mythology of the constellation Boötes-Herdsman (herding the Bear) Week #3

BOOTES, The Hunter has since early times been associated with country pursuits - as hunter, ploughman or herdsman. In Homer's Odyssey he is referred to as Wagoner or Driver of the Wain. However, since the seventeenth century the figure has been associated with the hunting dogs (Canes Venatici) charted by Helvelius. In Greek legend, Bootes is seen as representing Icarius, an Athenian who was fought the secret of winemaking by the god Dionysius. Icarius then allowed some peasants to sample his produce, but his kindness backfired. The men became extremely drunk and were convinced that they had been poisoned, so they killed Icarius and buried him. His daughter Erigone was so overcome with grief when she found his body that she hanged herself. Zeus transferred her to the heavens as Virgo, Icarius became Bootes, and Maera, the dog who had led Erigone to her father's grave, became one of the dogs of Canes Venatici.

1. Arcturus (alpha)

0.3 golden yellow To find it follow the arc of the Big Dipper. The saying is (AR to Arcturus and speed onto Spica) Most commonly thought of as a weapon (sword, lance, dagger, or javelin) in the Hunter's hand or in one nationality it was the 2<sup>nd</sup> calf of Leo the Lion where Spica was the 1<sup>st</sup> calf.

2. Nekkar (beta) 3.6 golden yellow Arabic name for the whole constellation (marks the head of todays figure.)

3. Seginus(gamma)

3.1 ? color the star that marks the left shoulder of the figure

4. Izar (epsilon)3.0 pale orange the girdle (where Mizar means the waistcloth)

5. Alkalurops (mu) 4.2 flushed white the Herdsman's club, crook, or staff

# Mythology of the constellation Hercules (the kneeling one)

Hercules is probably the best-known and greatest of all Greek heroes. His mother Alcmene, granddaughter of Perseus and Andromeda, was married to Amphitryon, but her beauty attracted the god Zeus and the two became lovers. She eventually gave birth to twin boys - Hercules, the son of Zeus, and Iphicles, his mortal half-brother, fathered by Amphitryon. Whilst still a baby, Hercules had to contend with the wrath of Hera, Zeus's wife. Angered at her husband's unfaithfulness, she decided that Hercules must be killed since he was visible proof of her humiliation. She sent two snakes to murder him as he lay in his crib, but such was Hercules' strength that he was able to strangle them both with his bare hands. Hercules grew to manhood and, as a reward for liberating Thebes, was married to Princess Megara, daughter of the king. But Hera, annoyed at his good fortune, succeeded in driving him temporarily insane and he killed his wife and children. Hercules was then placed in charge of his cousin, Eurystheus, and it was during this period that he performed the twelve labours, all connected with ferocious beasts and monsters, for which he is most famed. A further fit of madness resulted in him killing his friend Iphitus and, as an atonement, he was forced to live as a slave to Queen Omphale for three years. Finally freed from this servitude, he married Deineira and went into exile with her. Unfortunately, some time later she accidentally poisoned him. He was carried home and arranged his own funeral pyre, ordering the fire to be lit to put an end to his terrible suffering. Zeus saw all and, although Hercules was half mortal, transported him up to Olympus.

1. Ras Algothi (alpha) 3.1 to 3.9 orange red means the kneelers head.

2. Komophorus (beta) 2.8 pale yellow named applied to the whole figure which means bending on his knees

Mythology of the constellation Lyra

In Greek mythology LYRA represents the instrument which was a gift from Apollo to his son Orpheus. The latter's bride, the beautiful Eurydice, had been killed by a viper and was lost in the underworld. Orpheus set out to try to save her and played such sweet music on hi lyre that Hades, King of the Underworld, was charmed into giving permission for Eurydice to follow her husband home. He made one proviso, however, that Orpheus should not turn back to look at Eurydice until they were safely out of Hell. The pair set off but, at the very last moment, Orpheus could not resist turning round to see if Eurydice was following him and she was lost forever.

1. Vega (more correctly known as Wega by the ancients) (alpha) (0.04) pale sapphire was the pole-star 14,000 years ago in 12,000 BC. The "Harp Star" is the 5<sup>th</sup> brightest star in the sky.

2. Shelyak 3.4 to 4.5 (very white) from another of the titles of the whole constellation (meaning harp)

# Mythology of the constellation Aquila

Aquila, the pet eagle of Zeus, showed the gentler side of his nature when he carefully carried up Ganymede to Mount Olympus to be cupbearer to his master. However, when considering the myth surrounding Prometheus, the ferocious, darker side of Aquila is very evident. Prometheus was one of the last Titan gods who became an advisor to Zeus. He was protective of humankind and, seeing how they suffer because they had no fire, he stole a ray from the Sun which he smuggled down to earth in a hollow stem. Zeus did not believe that man worthy of such a gift, and was furious that Prometheus had acted without his permission. The well-meaning Titan was chained to the side a mountain, stripped of his garments, and was continually attacked by Aquila. Since he was immortal, his dreadful wounds healed themselves every evening, only to be opened up again the next day by Aquila. After many years Prometheus was saved by Hercules, who agreed with his kind deed to mankind. Using his bow and arrow, he killed Aquila, who was then placed by Zeus to soar in the heavens.

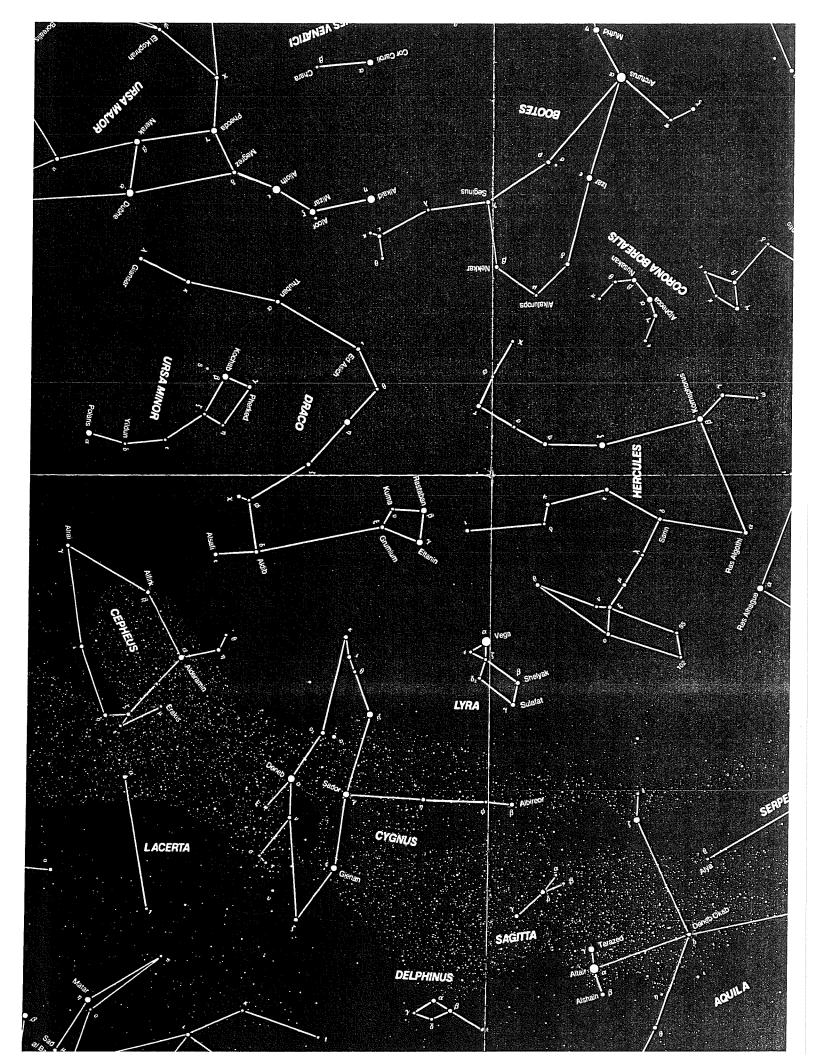
1. Altair (alpha) 1.3 pale yellow is from a part of the Arabic name for the constellation (meaning eagle)

2. Deneb Okab 3.3 green means Eagle's tail

# Mythology of the constellation Cygnus

the most well known of myths surrounding this constellation is that it represents Zeus in the story of Leda and the swan, Leda being the very beautiful wife of King Tyndares of Sparta. Zeus, noted for his affairs with mortal women, fell in love with Leda and changed himself into a swan in order to seduce her. She produced an egg from which emerged Castor, the mortal son of her husband, and Polydeuces (Pollux), immortal son of Zeus.

<ol> <li>Deneb (alpha)</li> <li>Albireo (beta)</li> </ol>	1.4 3.5 topaz yellow	brilliant white means Hen's tall under a different name it meant the Hen's Beak
3. Sador (gamma)	2.7	means Hen's breast vellow means the wing
4. Gienan	2.6	yellow means the wing



#### SPASH ASTRONOMY Pegasus, Perseus, Andromeda, Delphinus, Auriga

Week 4

#### Mythology of the constellation Pegasus

The white, winged horse Pegasus was the offspring of Poseidon and the Gorgon , Medusa, springing from the latter's neck when she was killed by Perseus. He immediately flew to Mount Helicon and struck the ground with his hoof. The resulting stream which flowed from the spot he had pawed became sacred to the Muses. Some time later Pegasus was to help Perseus to rescue Andromeda from the dreadful sea monster Cetus. Bellerophon, the grandson of Sisyphus (a selfish man punished by the Gods for his arrogance by being forced to continually push an enormous boulder to the top of a hill, only for it to roll back down just as the goal seemed within reach) was also greatly aided by Pegasus when undertaking several dangerous missions, including his fight against the Chimaera, the three-headed monstrous female. However, the success of this and other missions turned Bellerophon's head and he, too, became arrogant. So much so, that although a mere mortal, he forced Pegasus to fly him to Mount Olympus, the home of the Gods. Zeus , greatly annoyed at Bellerophon's presumption that he was worthy to be in such august company, sent an insect to bite Pegasus on his flank, causing him to rear up and throw Bellerophon to the ground. He was then dispatched back to earth, and ended his days a sad and lonely figure, blind and lame. For Pegasus, however, there was the reward of a place in the stables on Mount Olympus, and the opportunity to carry around Zeus's thunderbolts

1. Markab (alpha) is the Arab's word for a Saddle, Ship, or Vehicle - anything ridden upon. Magnitude 2.5

2. Scheat (beta) means the upper part of the Arm Magnitude 2.2 to 2.7

3. Algenib (gamma) the wing Magnitude 3.0 white Note: with beta Cassiopeiae (Caph) and alpha Andromeda (Alpheratz) almost exactly the prime meridian

deep yellow

white

4. Enif (epsilon) means the nose Magnitude 2.5 yellow

#### Mythology of the constellation Perseus

King Acrisius of Argos was warned by an oracle that one day he would be killed by his own grandson. To prevent any likelihood of this ever happening, he locked away his beautiful daughter, Danae, so that no man could ever reach her. But this did not stop the god Zeus, with his fondness for mortal women. He entered her prison and Perseus (per Zeus, sired by Zeus) was the result. Dismayed, Acrisius put his daughter and her child into a wooden chest and set them adrift on the high seas. But luck smiled upon them and they eventually reached the island of Seriphos, which was under the rule of King Polydectes. This king fell in love with the lovely Danae, but saw that the depth of her feelings for Perseus would be a barrier to his own chances of winning her undivided loyalty. He therefore sent the adventurous youth on many missions, the most dangerous being to bring back the head of Medusa. Medusa was one of three Gorgon sisters, all so unbelievably ugly that anyone who ever looked at them would immediately be turned to stone. Before setting off on his mission, the goddess Athena presented him with a highly polished shield, and this was to prove invaluable. After finding the three Gorgons sleeping, by using the shield as a mirror he was able to approach Medusa without actually looking directly at her. He swiftly cut off her head with his sword, and the winged horse Pegasus sprang from her body. Placing the head in a bag, Perseus climbed upon Pegasus and started on his homeward journey. Nearing Ethiopia, he heard a woman's screams and was just in time to rescue Andromeda, who was to become his wife. Many years later, the oracle's prediction came true when Perseus accidently struck his grandfather Acrisius with a discus during a sporting event and killed him.

1. Mirfak (alpha) means the Elbow

Magnitude 2.1

brillant lilac and ashy

2. Algol (beta) means the Demon (like the Head of Medusa) Magnitude 2.3 to 3.5

Mythology of the constellation Andromeda

The story of Andromeda, daughter of King Cepheus and Queen Cassiopeia, of Ethiopia, brings together many notable names of legend. Her mother's boastfulness and pride greatly angered the sea gods and this resulted in Andromeda being sacrificed in

order to appease them. Knowing full well that she would be at the mercy of the sea monster, Cetus, the King and Queen allowed their young daughter to be chained to a rock on a cliff overlooking the sea. However fate, in the person of Perseus, intervened. Riding home on the winged horse Pegasus, he heard Andromeda's screams as Cetus approached her. Holding high the head of Medusa (see legend of Perseus) he charged towards the monster who was instantly turned to stone as he looked upon the severed head. Taking great care to prevent Andromeda from looking at the head, he then released her from her chains. The young couple immediately fell in love and, as Perseus had just saved their daughter's life, Cepheus and Cassiopeia readily consented to their marriage.

- 1. Alpheratz (alpha) (used to be the Horse's navel but now is considered the woman's hair. Magnitude 2.2 white (P.M. with Caph.)
- 2. Mirach (beta) a form of Mizar or waistcloth Magnitude 2.3 yellow
- 3. Alamac (gamma) a small predatory animal of Arabia, similar to a badger here. (marks the left foot of Andromeda.) 2.3 orange Mythology of the constellation Delphinus

In India, the constellation DELPHINUS, The Dolphin, was regarded as being made up of fortunate or lucky stars, and was always associated with a porpoise. In Greek legend DELPHINUS is thought to represent the creature which saved the life of the poet Arion. When he was sailing home to Corinth, the ship's crew mutinied, stole his fortune, and appeared about to murder him. Arion pleaded for his life, begging to be thrown overboard since he knew that the beauty and sweetness of his songs would charm the creatures of the sea. And so it transpired as, when the seamen threw him into the water, a dolphin immediately appeared and carried him safely to land. It was rewarded for this act by being placed in the heavens.

### 1. Sualocin (alpha) means swift (as the flow of water)

Magnitude 4.0

pale vellow

#### Mythology of the constellation Auriga

AURIGA, The Charioteer, has long been shown as a shepherd, cradling either a goat or goat and kids, as he rides through the heavens in his chariot. One variation suggests that the goat in question is Amaltheia, famous for suckling the infant Zeus. (In fact, Capella, one of the brightest stars in this constellation, was previously called Amaltheia.) Another suggestion is that the constellation represents Erichthoneus, the lame son of Hephaestus and Mother Earth. Erichthoneus invented the four horse chariot so that he could get around more easily. This was noted and admired by Zeus, who placed man and chariot in the heavens. Another interpretation is that Auriga represents Myrtilus, the unfortunate charioteer of King Oenomaus. This king was jealous of anyone who came to seek his daughter's hand in marriage. Being noted for his love of horses (his daughter was named Hippodameia "horse tamer"), the king announced that all suitors would have to take part in a chariot race against him and, should they lose, pay with their lives. Since his horses came from the god Ares, none could beat them, and all the suitors were killed. The gods decided to intervene when Pelops, son of Hermes entered the fray. He was given a gold chariot, with winged golden horses to pull it, by Poseidon. As a further precaution, and with the consent of Hippodameia who had fallen in love with this latest suitor, Pelops arranged that Myrtilus should tamper with the wheels of King Oenomaus' chariot. This he did, the king was dragged to his death, and Pelops was left to claim his prize. However, Myrtilus had only agreed to weaken the king's chariot on the condition that he was granted certain privileges, and when he demanded to spend the bridal night with Hippodameia, both she and Pelops strongly resisted and Myrtilus was killed.

1. Cappella (alpha) the little she goat

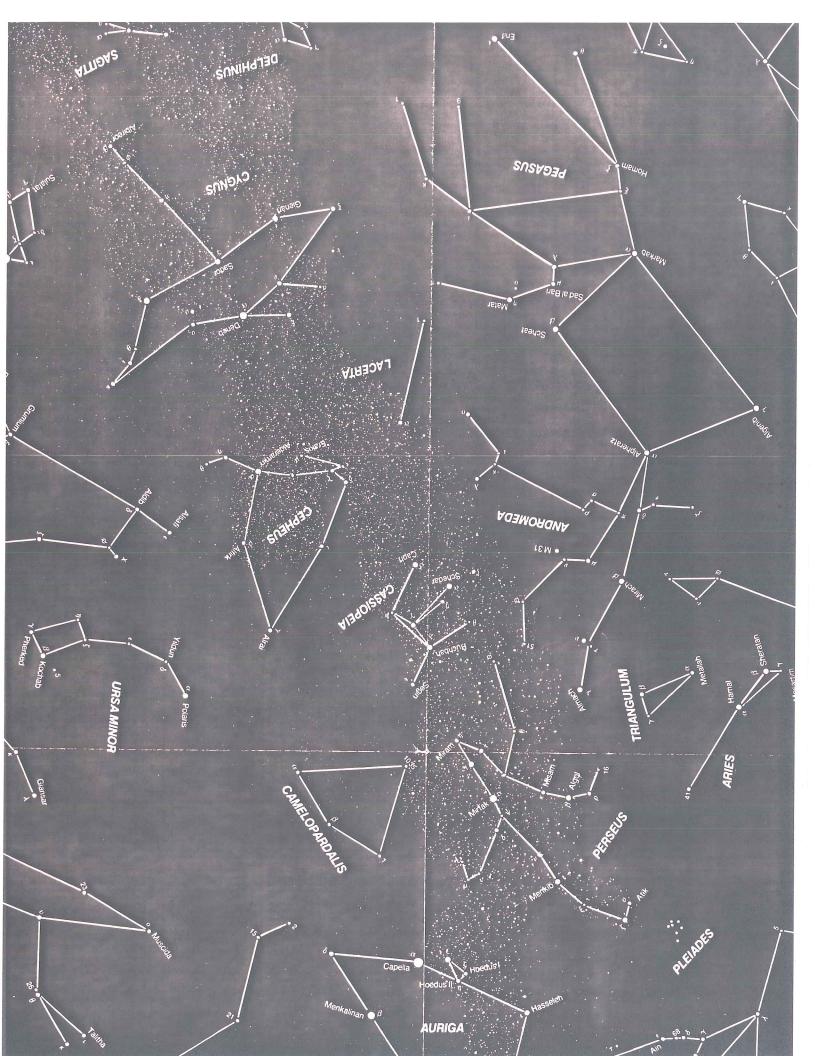
Magnitude 0.3

white

2. Menkalinan (beta) shoulder of the Rein-holder

Magnitude 2.1

lucid yellow



#### SPASH ASTRONOMY

Week 5 (Constellations Ophiuchus, Serpens, Corona Borealis, Coma Berenices, and Canes Venatici)

THE PER

# Mythology of the constellation Ophiuchus

OPHIUCHUS, The Serpent Holder, is associated with Aescupalius, the noted healer of Greek legend. His mother onis was courted by the god Apollo and she eventually became pregnant. However, this did not stop her ing for a mere mortal, Ischys by name. The god had left a white crow to keep watch on Coronis and, when it reported her infidelity, Apollo was so furious that it had not immediately pecked out Ischys's eyes that he cursed the bird and turned it black. When Artemis, Apollo's huntress sister, heard of the behaviour of Coronis, she shot a quiverful of arrows into her. Apollo saved his unborn son, named him Aesculapius, and took him to Chiron, the kind and extremely wise centaur, who taught him the art of medicine. The youth mastered the art completely, so much so that Hades, King of the Underworld, feeling threatened should Aesculapius be able to raise the dead, complained to Zeus. The great god regrettably decided that Aesculapius must die, and struck him with a thunderbolt, thereafter placing him among the stars. To this day, Aesculapius and the serpent are associated with healing, and all physicians take the Hippocratic oath (Hippocrates supposedly being a descendant of Aesculapius).

- 1. Ras Alhague (alpha) 2.2 sapphire means-Head of serpent charmer
- 2. Kelb Ariai (beta) 3.3 yellow means-Heart of the Shepherd
- 3. Muliphen (gamm 4.3 none

# Mythology of the constellation Serpens

SERPENS, The Serpent, and Ophiuchus, The Serpent Holder, originally formed one constellation. The Serpent appears to be cut in two by Ophiuchus, with SERPENS CAPUT, The Head, to the west, and SERPENS CAUDA, The Tail, to the east. Always related to the healer Aesculapius, a serpent's venom can cure as well as kill, and the shedding of its skin is representative of the renewal of life, two factors which strengthen this association.

- 1. Cor Serpentis (alpha) 3 pale yellow means "Neck of the snake"
- 2. Chow (beta) 3 pale blue named only by the Chinese, it was named after one of their imperial dynasties.

# Mythology of the constellation Corona Borealis

CORONA BOREALIS represents the crown or wreath worn by Ariadne, daughter of King Minos of Crete. Her story connected to that of the Minotaur - a creature half-man, half-bull, who dwelt on the island at the centre of a wyrinth with no known escape route. Periodically, seven young men and seven girls were sent from Athens to be offered up to the Minotaur. One year, Theseus, heir to the throne of Athens, who had already proved himself a hero, volunteered to be one of the seven men in order that he might kill the Minotaur and thus prevent any further sacrifices. On his arrival in Crete he met the beautiful Ariadne and told her of his plan. She fell in love with Theseus and agreed to help him by lending him her magic ball of golden twine, which would enable him to find his way back out of the labyrinth. Her one condition was that he should then take her back to Athens with him as his wife. Accordingly, Theseus killed the Minotaur and, by following the unravelled ball of twine, managed to find his way out of the labyrinth. Here the story varies, with one account suggesting that Theseus deserted Ariadne on the island of Naxos, where she died of a broken heart, and that her wedding wreath was placed in the heavens by Dionysius. Another explanation suggests that it is the golden twine which is represented by CORONA BOREALIS.

1. Alphecca (alpha) 2.4 brilliant white means "bright one of the dish"

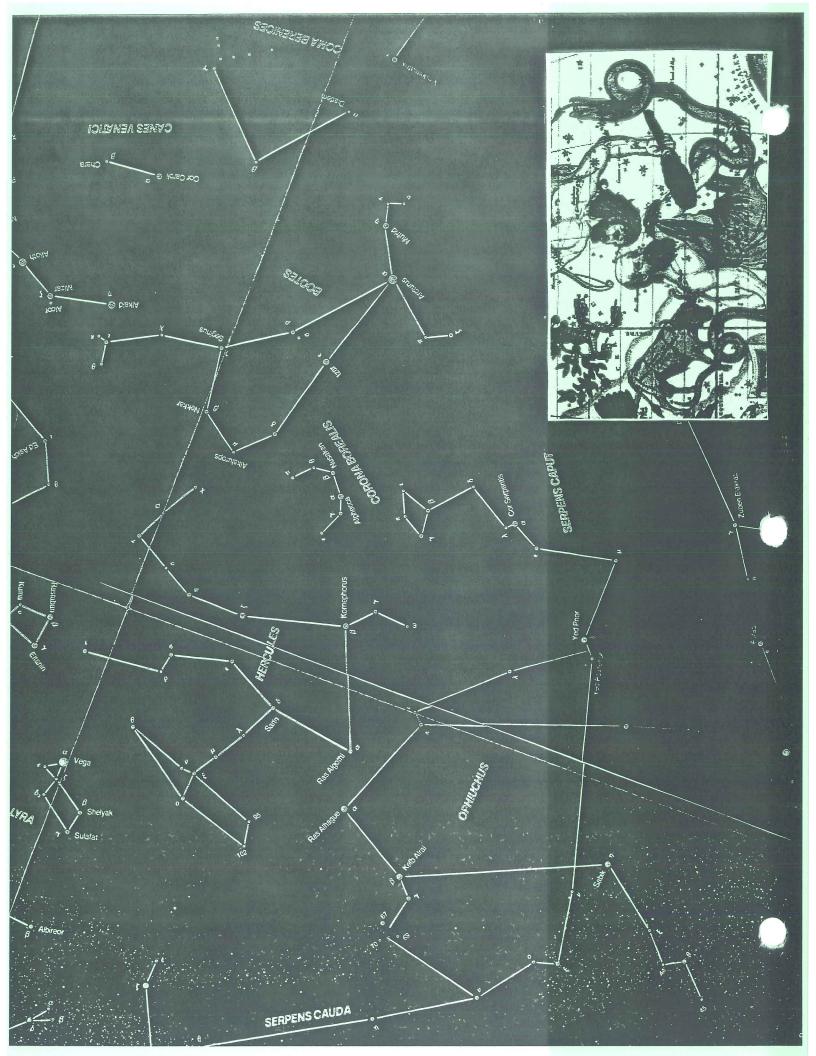
# **Mythology of the constellation Coma Berenices**

The constellation COMA BERENICES represents the beautiful hair of Queen Berenice of Egypt. She was so concerned for the safety of her husband Ptolemy III when he went off to war, that she vowed to cut off her glorious long hair as a sacrifice to Venus, should he be spared. When he eventually returned safely home, she kept her promise, and Zeus placed her beautiful hair in the heavens to shine among the stars.

# Mythology of the constellation Canes Venatici

Since the 17th-century charts of Hevelius (the Polish astronomer Johannes Hoevelke) CANES VENATICI, The Hunting Dogs, has been considered to represent two hounds held on a leash by Bootes. The northerly dog (the one closer to Bootes) is named Asterion, meaning Starry, the southerly (the one closer to Ursa Major) Chara, as Dear to the heart of her master.

- 1. Cor Caroli (alpha) 3.2 flushed white originally named Asterion was the 12<sup>th</sup> of Flamsteed's list of the unds, stands alone, marking Chara's collar, but the name Cor Caroli comes from England and is named for King charles as it was said that the star had shone special brilliancy on the eve of the king's return to London on the 29<sup>th</sup> of May, 1660.
- 2. Chara (beta) 4.3 the 8th of Flamsteed's list of the Hounds



### SPASH ASTRONOMY WEEK 6

### Cancer, Leo, Leo Minor, Lynx, Camelopardalis

### Mythology of the constellation Cancer

Early Egyptians saw CANCER, The Crab, as a lowly scarab or dung beetle, representing the dawn Sun-god Khephri, a symbol of fertility. The Greeks, however, believed this constellation represented the giant crab which continually nipped at Hercules' feet, hampering him as he battled with the poisonous, nine-headed monstrous Hydra.

- 1. Acubens (alpha) 4.4 white means: the claws
- 2. Asellus Borealis (gamma) 4.6 straw color means: northern colt
- 3. Asellus Australis (delta) 4.3 straw color means: southern colt

### Mythology of the constellation Leo

There are two strong contenders as to which mythical lion is represented by the constellation LEO.

The first is the Nemean lion which Hercules had to kill as the first of his 12 Labours. This fearsome beast terrorised the land, killing all who ventured near it. Not only was it more fierce, larger and stronger than other lions, but it also had the added advantage of possessing a skin which was impervious to metal, stone and wood. Since, for this reason, Hercules could not kill the lion with any weapon, he wrestled it with his bare hands, and finally managed to strangle the animal. Seeing at once the unique protective qualities of the pelt, he removed it with one of the lion's own claws, and thereafter wore it as a cloak.

The second contender is the lion featured in the poet Ovid's tale of Pyramus and Thisbe. Both sets of parents of this young couple considered them too young to marry and stopped them seeing each other. However, the pair made arrangements to meet secretly by a mulberry tree with white berries. When Thisbe arrived at the appointed place, a lion sprang out from some bushes and she ran away in fright. Unfortunately, her veil fluttered to the ground as she ran and the lion, bloody from its latest kill, pounced on it. A short time later Pyramus arrived, saw his beloved's bloody veil and believed that she had been killed. Totally distraught, and unable to face life without her, he threw himself on his sword. As he lay dying, Thisbe returned, took his sword and killed herself. The blood of the tragic pair coloured the berries of the mulberry tree red, and so they remain to this day. Some suggest that Zeus placed Thisbe's veil in the heavens as Coma Berenices.

- 1. Regulus (alpha) 1.7 flushed white means: Lion's heart
- 2. Denebola (beta) 2.3 blue means: Lion's Tail
- 3. Algieba (gamma) 2.2 bright orange means: Lion's Mane

# Mythology of the constellation Leo Minor

1687 was a busy year for the Polish astronomer Johannes Hevelius. It was at this time that he first charted and named LEO MINOR, The Little Lion.

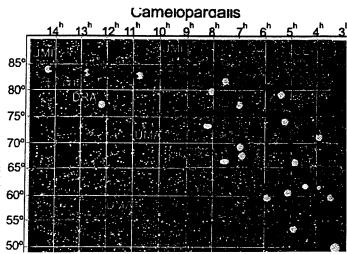
1. Alterf (alpha) - 4.8 - red - means: Glance of the Lion's Eye

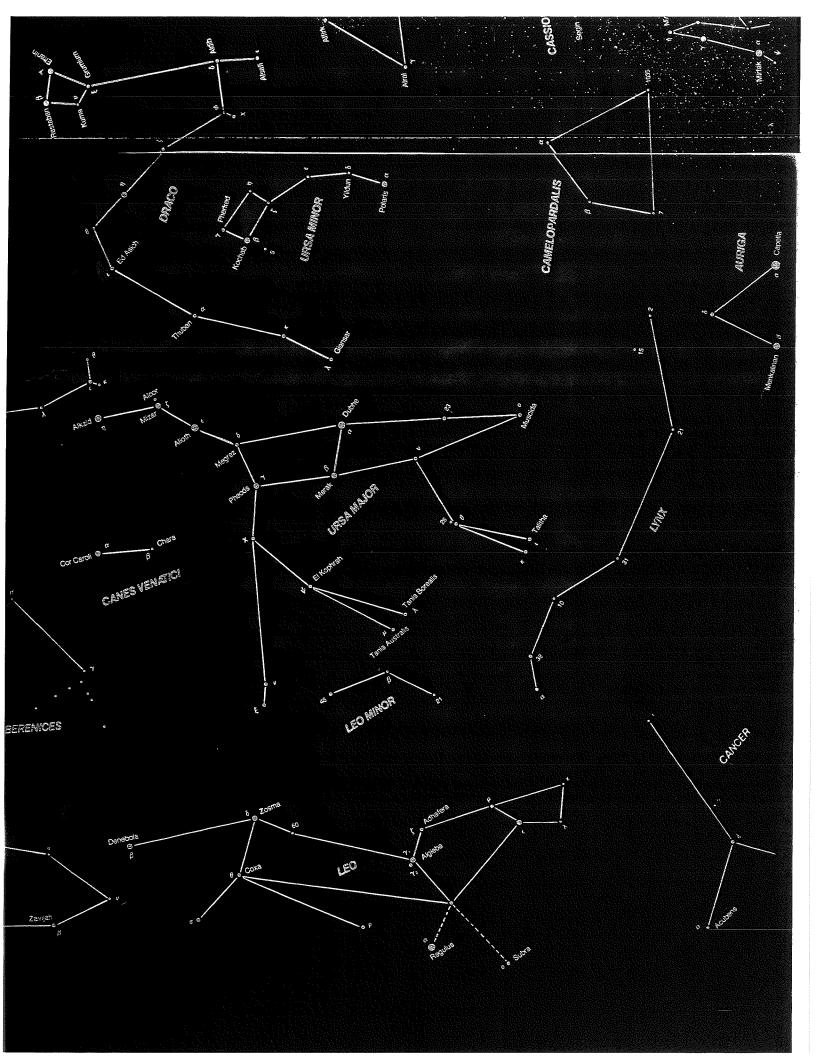
# Mythology of the constellation Lynx

LYNX is another constellation created by Johannes Hevelius in 1687. He gave it this name not because it resembled a lynx, but because anyone studying the stars needs the sharp eyes of such an animal.

# Mythology of the constellation Camelopardalis

CAMELOPARDALIS, The Giraffe. is said to represent the Biblical camel which carried Rebecca to Isaac. However, historians are divided as to the inventor of this modern constellation. Some say that Dutchman Petrus Plancius first charted Camelopardalis in 1613, it later being included in Jakob Bartsch's book on the constellations, whilst others suggest that Bartsch, himself, invented the constellation in 1624.





#### SPASH ASTRONOMY

Week 7: Orion, Canis Major, Canis Minor, Gemini, Taurus

Orion was a powerful figure - strong, handsome and possessing great prowess as a hunter. Whilst visiting the isle of Chios, he fell in love with Merope, a granddaughter of the god Dionysis. Her father, Oenopion, agreed to their marriage on condition that Orion first rid the island of all dangerous beasts. This he did, but Oenopion Made further excuses as to why the marriage should not take place. An exasperated Orion drank a great deal of potent wine and, under its influence, forced himself on Merope. Oenopion was furious at this attack on his daughter and, whilst Orion was still drunk and helpless, blinded him. Orion sought the assistance of an oracle and was told that he had to travel to the East to seek the Sun's morning rays in order to recover his sight. After many adventures, including a meeting with Vulcan, blacksmith to the gods, on the island of Lemnos, he finally met the Sun god Helios and was given back his sight. Now all his thoughts were of revenge, but on his way to seek out Oenopion, he landed in Crete, where he met the beautiful Artemis, his feminine counterpart where hunting was concerned. Here the story varies considerably. One version goes that, noting how frequently the pair hunted together, and fearing that Artemis may become yet another conquest of Orion, her brother Apollo challenged her to hit a speck in the sea, a speck which in reality was Orion swimming. He was killed with a single arrow shot from her bow. Another variant of the story has Orion boasting of his ability to kill all animals, no matter how dangerous they were. The gods, rightly fearing for the world's ecology should he decide to put his boast to the test, produced a gigantic scorpion, whose body was so heavily encased that Orion was unable to pierce through the armour, and was himself stung to death. In both cases, so the story goes, Artemis was greatly saddened and arranged for Orion to be immortalized among the stars.

1.	Betelgeuze (alpha)	.7	- orange -	- means: The Armpit of the Central One
2.	Rigel (beta)	.3 and 8	<ul> <li>bluish white</li> </ul>	- means: The Left Leg
3.	Bellatrix (gamma)	2.0	- pale yellow	- means: The Female Warrior
4.	Mintaka (delta)	2.4	- brilliant white	- means: Belt
5.	Alnilam (epsilon)	1.8	- bright white	- means: String of Pearls
6.	Alnitak (zeta)	2.5	-topaz yellow	-means: The Girdle
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Mythology of the constellation Canis Major

CANIS MAJOR, The Greater Dog, and in particular the bright star Sirius, was often featured in early Egyptian lore. At various times in Egyptian history it was identified with the goddess Isis, with the cow-goddess Hathor and with the jackal-headed god Anubis. Sirius was considered very highly by the Egyptians, since its reappearance in mid-July, after several months' absence, coincided with the annual flooding of the Nile, an event so essential to the fertility of the land. Sirius also became known as the "Dog Star", representing the hottest days of summer referred to in bygone times as Dog Days. In Greek mythology, CANIS MAJOR, represented the larger of the two dogs belonging to the great hunter Orion. The dog seems to be in the act of leaping after the Lepus the Hare, and because of his incredible speed, he was honored by Zeus and placed in the heavens.

1. Sirius (alpha) (really negative) -1.43 – brilliant white – means: sparkling or scorching (Dog-Star)

#### Mythology of the constellation Canis Minor

CANIS MINOR, The Lesser Dog, was Orion's second hunting dog.

1. Procyon (alpha) 0.4 - yellowish white - - means: before brightest (rose before Sirius)

#### Mythology of the constellation Gemini

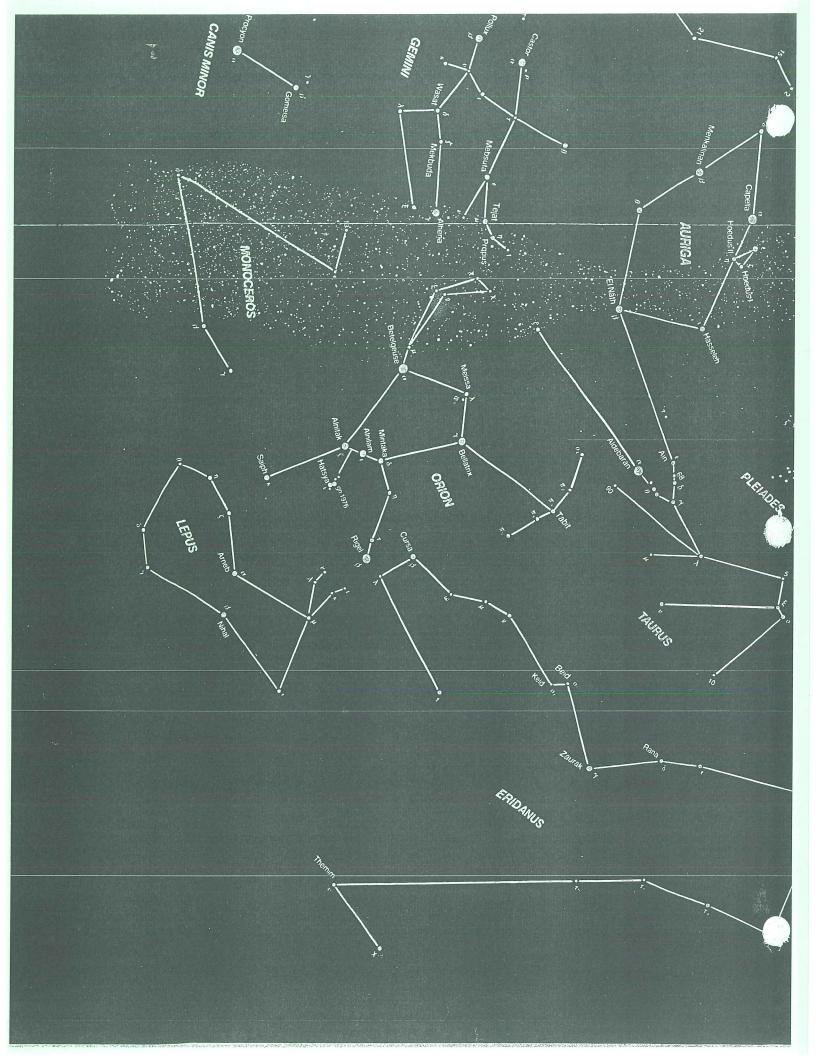
This zodiacal constellation represents the twins Castor and Polydeuces (Pollux to the Romans). These were born from an egg after their mother, Leda, Queen of Sparta, had been seduced by Zeus, disguised as a swan. Although only half brothers, Castor, the mortal son of Leda's husband, King Tyndareus, and Polydeuces, immortal son of Zeus, were extremely close and together took part in many adventures. Sadly, on one of these Castor was killed. Polydeuces avenged Castor's murder, but was so overcome with grief that he begged to be allowed to be with his brother in the underworld. Zeus, knowing the strength of their feelings, and for once showing some compassion, granted this request. He placed the twins side by side in the heavens so that they could alternate their time together between Hades and the home of the gods.

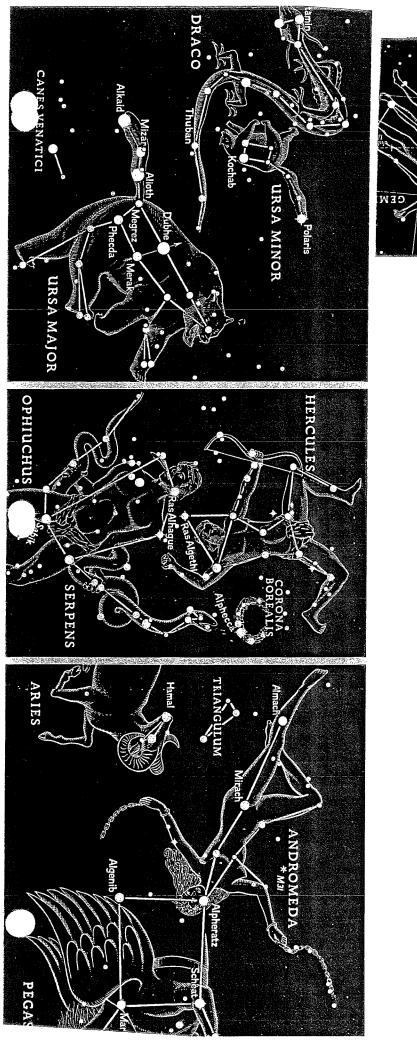
1. Castor (alpha)	2.7	- bright white	- means: The Horseman
2. Pollux (beta)	1.1	- orange	<ul> <li>means: the immortal, the son of Zeus</li> </ul>
3. Alhena (gamma)	2.2	<ul> <li>brilliant white</li> </ul>	- means: the Proudly Marching One

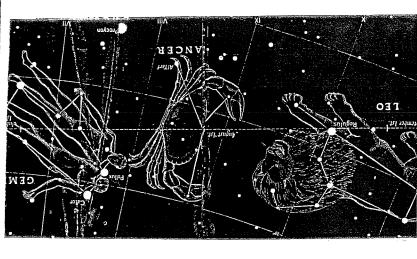
#### Mythology of the constellation Taurus

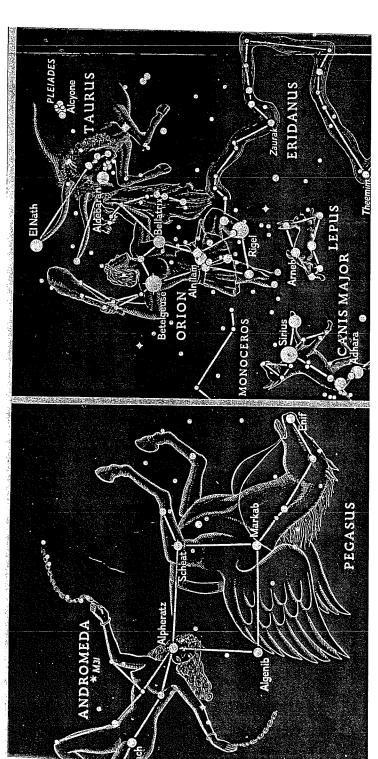
To the Egyptians TAURUS, The Bull, symbolized both Osiris and his sister Isis who were represented as a bull-god and cow-goddess respectively. In Greek legend, Taurus is identified with the disguise adopted by Zeus in yet another of his amorous adventures. On this occasion, the god had fallen in love with the beautiful Europa, daughter of King Agenor, as she strolled with her companions on the seashore. He suddenly appeared amongst them as a magnificent white bull, but one which was so gentle that they felt no fear. Europa and her maidens gathered flowers and made garlands which they hung around the animal's neck and, such was their trust in his docility, that Europa climbed upon his back. However, at this moment, the bull plunged into the sea and swam away furiously with the terrified girl. When they reached Crete, Zeus revealed his true identity and ravished her. She was to bear him three sons, the first of which, Minos, introduced the bull cult to Crete.

<ol> <li>Aldebaran (alpha)</li> </ol>	1.2	- pale rose	- means: The Follower (of the Pleiades)
2. Al Nath (beta)	2.1	- pure white	- means: The Butting One









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# SPASH Astronomy (Week 8)

# Mythology of the constellation Virgo

Persephone, daughter of Zeus and Demeter, had been abducted and taken to the underworld by Hades. In revenge her mother ruined the harvests, the earth became infertile and the people were starving. Zeus was forced to issue a decree stating that Persephone should spend only a short time each year in the underworld, and when she was released Demeter permitted Nature to resume its natural course.

1. Spica (Alpha)- 1.3 - brilliant flushed white - signifies: Ear of Wheat held in the Virgins left hand

2. Zavijah (beta) - 3.9 - pale yellow - means: angle or corner

# Mythology of the constellation Libra

This zodiacal constellation is associated with balance - balance of both Nature and of Justice. Some 3000 years ago, the Sun entering LIBRA marked the beginning of Autumn, when days and nights were of equal length, i.e. balanced, and Roman astrologers considered that the constellation represented the scales held by Astraeia, goddess of Justice.

1. Kiffa Australis (Alpha) – 3 – means: The Southern Tray of the Scale

2. Kiffa Borealis (Beta) – 2.7 – Means: The Northern Tray of the Scale

# Mythology of the constellation Scorpius

The Scorpion responsible for Orion's death. It is placed in the opposite quadrant to that of Orion.

1. Antares(alpha) - 0.7 - fiery red - means: Rival of Mars (in reference to its color)

2. Graffias(beta) – 2 – pale white – means: Crab (crab and scorpion were interchangeable)

# Mythology of the constellation Sagittarius

The Archer, represents a centaur, half-man/half-horse, descended from Ixion, the man who dared to lust after Hera, wife of Zeus. Realising Ixion's intentions, Zeus sent a cloud, disguised as Hera, to trick him. The offspring of this union was Kentauros, who was shunned by gods and mankind alike. He moved to Thessaly and bred with the mares there, and so centaurs were born. Some, like Chiron, the wise and kindly centaur who befriended Hercules and who is represented by CENTAURUS, were considerate and friendly to men, but many were aggressive. SAGITTARIUS is one of the latter, a fierce hunter with his bow and arrow always aimed at Scorpius.

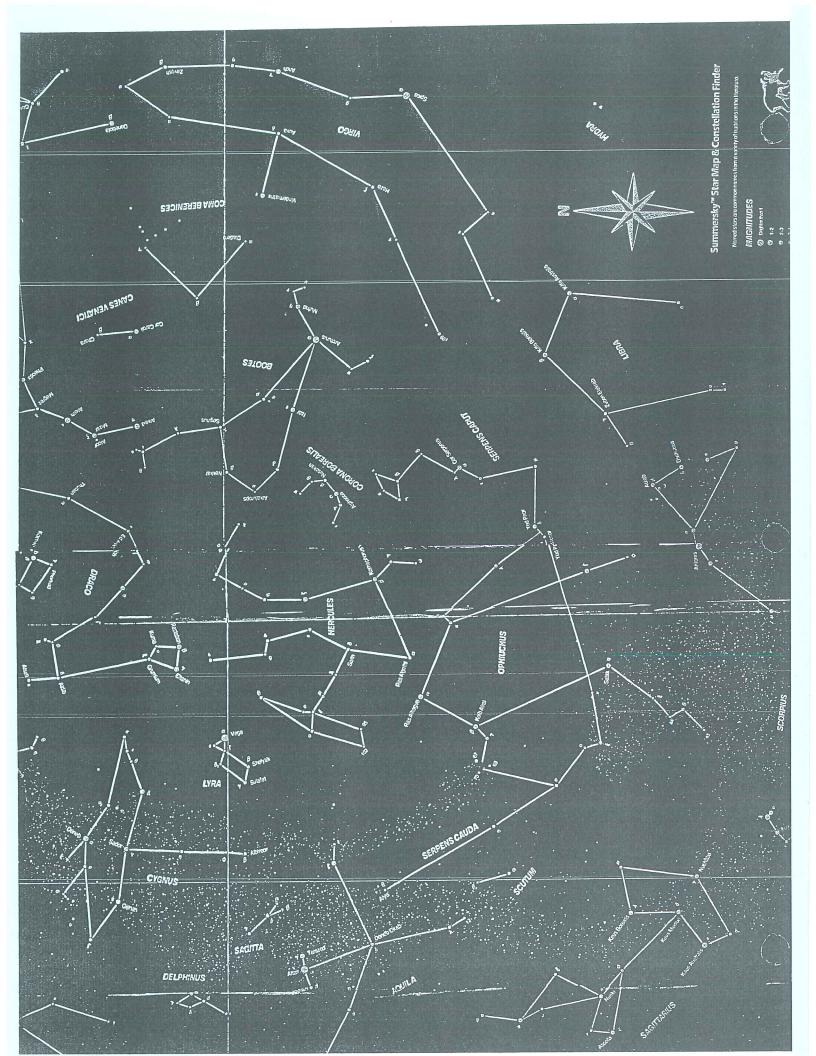
1. Nushaba(gamma) – 3.1 – yellow – means: The Point

2. Kaus Medius(delta) – 3 – orange – means: The Middle Bow

3. Kaus Australis(epsilon) - 2 - orange -means: The Southern Bow

# Mythology of the Constellation Capricornus

CAPRICORNUS, a creature with the head and body of a goat and the tail of a fish, may well have originated from Assyro-Babylonian depictions of their god of wisdom Oannes, who was half-man, half-fish. In Greek mythology, this constellation is associated with the time the Olympian gods sought refuge in Egypt. Unfortunately, following their epic battle with the Titans, peace did not last for long, as the monster Typhon, son of the Titan Tartarus and Earth, sought revenge. Typhon was a fearsome fire-breathing creature, taller than mountains and with arms which possessed dragons' heads in place of fingers. The Olympian gods sought to escape by adopting various disguises: Zeus, a ram - Hera, a white cow, Bacchus (another version of the myth suggests Pan) a goat. As Typhon approached, Bacchus/Pan threw himself into the Nile but, in a panic, only succeeded in changing part of his body, ending up with a goat's body and the tail of a fish. Meanwhile, Zeus had been dismembered by Typhon, but was saved when Bacchus/Pan let out an earsplitting yell, distracting the monster long enough for an agile Hermes to collect the supreme god's limbs and carefully restore him. In gratitude, Zeus transferred Bacchus/Pan to the heavens.



# Spash Astronomy

Week 9

### Mythology of the constellation Pisces

The constellation PISCES represents Aphrodite and her son, Eros, who changed themselves into fishes and jumped quickly into the Nile in order to escape from the dreaded monster Typhon.

1. Alrisha (alpha) - 4 - pale green - means: The cord

## Mythology of the constellation Aquarius

This is the eleventh zodiacal sign and one which has always been connected with water. Greek legend, tells of Ganymede, an exceptionally handsome, young prince of Troy. He was spotted by Zeus, who immediately decided that he would make a perfect cup-bearer. Then Zeus sent his pet eagle, Aquila, to carry Ganymede to Olympus, , once Ganymede arrived, he had to contend with the wrath of Hera, wife of Zeus. She was annoyed on two counts - firstly, that her husband should have such strong feelings for a mere boy and, secondly, that Ganymede was to occupy the favoured position previously held by her own daughter Hebe, goddess of youth. But Zeus was not to be thwarted and Ganymede, often riding on Aquila and always carrying the golden cup, accompanied the great god on his travels, impressing him with his kindness. This was made manifest when, realising how in need of water the people on earth were, he pleaded with Zeus to be allowed to help them and was given permission to send down rain. Eventually he was glorified as Aquarius, god of rain, and placed amongst the stars.

- 1. Sadalmelek (alpha) 3.2 pale yellow means: The Lucky One of the King
- 2. Sadalachbia(geamma) 4.1 greenish means: Hiding Place

### Mythology of the constellation Triangulum

To the Greeks TRIANGULUM, The Triangle, represented their triangular-shaped letter delta, and eventually it came to symbolize any river delta, but especially that of the Nile. Similarly, because of its shape, it was said to represent the island of Sicily, which was sacred to Demeter, and from whence her daughter Persephone was taken to Hades.

1.Ras Al Metallah(alpha) – 3.49 – means: Head of the Triangle

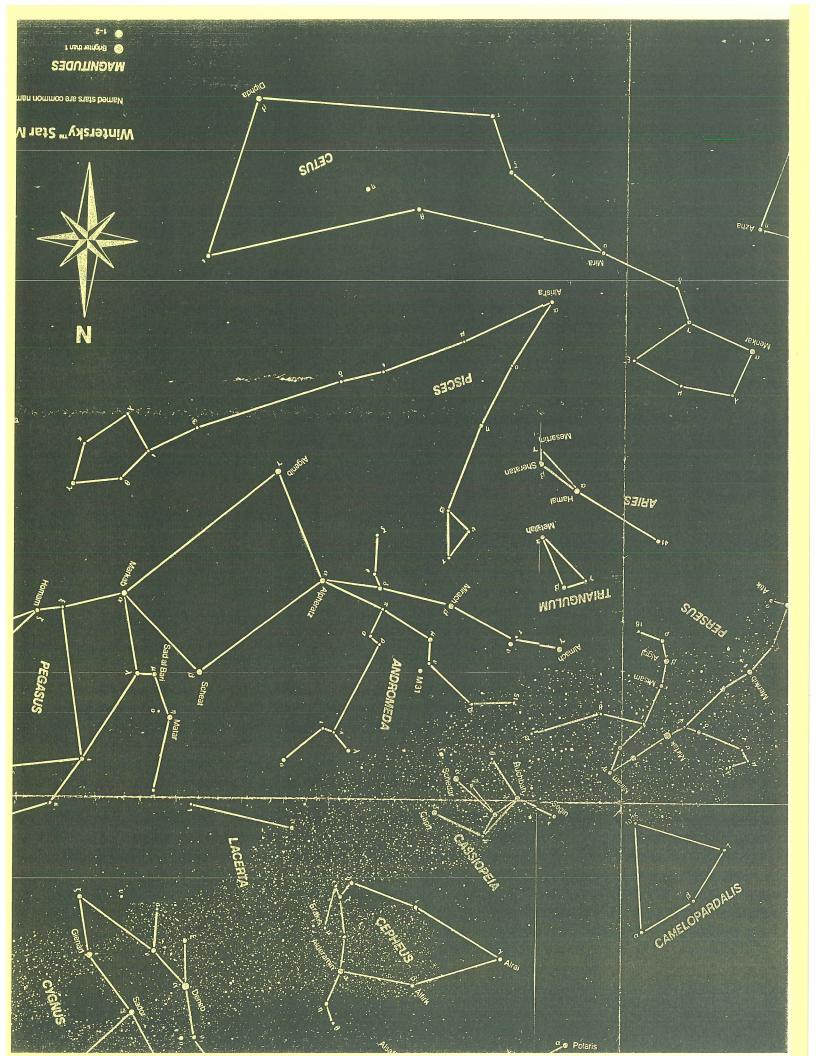
# Mythology of the constellation Aries

Aries, The Ram, is the first of the twelve zodiacal constellations, and in Greek myth represents the animal whose fleece was sought by Jason and the Argonauts. Legend has it that when King Athamus of Boetia took a second wife, Ino, she was extremely jealous and resentful of his existing children, especially his son, Phrixus. She therefore deviously plotted the failure of the corn crop, intercepted and bribed the messenger sent by her husband to consult an oracle on the matter, and instructed him to say that he had been told that Phrixus had to be sacrificed if the people were to escape starvation. Despite pleadings from the boy's mother, Nephele, King Athamus agreed to the sacrifice but, at the very last minute, the boy and his sister, Helle, were saved by a magnificent ram with a golden fleece, sent by Zeus in answer to their mother's prayers. Unfortunately, as the ram crossed the narrow stretch of water between Europe and Asia, Helle fell to her death (the straits are still known as Hellespont) but Phrixus was carried safely to the land of Colchis. He gave thanks for his deliverance by sacrificing the ram to Zeus and giving its golden fleece to King Aeetes. The king had the fleece placed in a sacred copse, guarded by a fearsome dragon which never slept. Phrixus later married the king's daughter and remained in exile for the rest of his life, but the fleece was eventually stolen by Jason.

- 1. Hamal(alpha) 2.3 yellow means: Head of the Sheep
- 2.Sheratan(beta) 2.9 pearly white means: a Sign

# Mythology of the constellation Lacerta

Another "modern" constellation, The Lizard, was created by Johannes Hevelius in 1687.



### SPASH Astronomy Week 10

### Mythology of the constellation Hydra

Hydra was a nine-headed monster in the form of a long, writhing water snake. It attacked, killed and ate anyone who ventured near its swampy abode in Lernea. To slay this dreadful beast was the second of Hercules's twelve labours. This was an enormously difficult task, since every time Hercules succeeded in cutting off one of Hydra's heads, two would grow where the one had been. Added to this, Hera, who had always been resentful of Hercules, sent a giant crab to nip and bite at his feet as he attempted to slay the monster. He finally achieved this after instructing his nephew, Iolaus, to burn each neck stump immediately after he, himself, had severed the head, thus preventing any re-growth. (Hydra can be found on week 8)

1. Alphard (alpha) – 2 – orange – meaning: The Solitary one

### Mythology of the constellation Lepus

An ancient constellation, LEPUS, The Hare, is seen by the Greeks as representing the prey of CANIS MAJOR. (Lepus can be found on week 7)

1. Arnebl (answer) -2.7 – pale yellow – meaning: The Whole

2. Nihal (beta) – 3.5 – deep yellow – meaning: none

### Mythology of the constellation Eridanus

The long, winding, sprawling constellation Eridanus has been identified variously as the rivers Tigris, Euphrates, Po, Nile, Ebro, Rhine and Rhone, and Homer referred to it as an "Ocean Stream" which circled the earth. One legend which has a particular association with Eridanus is that of Phaeton, son of Helios, the Sun God. As a young an, Phaeton desperately wanted to drive the sun chariot across the skies - a task always undertaken by his father, this desire, he was encouraged by his sisters and mother. His father steadfastly refused to give his permission as he knew that Phaeton was not yet strong enough for such a task. However, after much pestering he finally agreed. The two white horses were harnessed, Phaeton climbed aboard and took up the reins to drive the sun across the heavens. It quickly became clear that he was not strong enough to control the horses. At first they galloped so high in the sky that the earth far below was in danger of freezing, then they swept so close to the earth that it became scorched. Zeus had watched all this in growing anger. His patience finally snapped, and he threw a thunderbolt straight at the chariot. Phaeton was killed outright, falling into the sacred river Eridanus. For their foolishness in encouraging him in such an irresponsible adventure, his sisters were turned into trees along the riverbank.

1. Achernar (alpha) - .45 - - meaning: The Star at the End of the River (Eridanus can be found on week 7)

# Mythology of the constellation Monoceros

A modern constellation, MONOCEROS, The Unicorn, was named by Petrus Plancius, the Dutch astronomer in 1613, and recorded in Jakob Bartsch's star chart of 1624 as "Unicornu". However, some astronomers believe that it was known in more ancient times, and was possibly seen as representing the figure of a horse. (Monoceros can be found on week 8)

# Mythology of the constellation Cetus

As with many constellations, there is no one specific creature represented by CETUS. To the ancient Babylonians it was the great sea monster Tiamat, symbolising Chaos. It has been depicted by some as a sea-serpent or dragon fish, whilst others saw it as a great whale. But it is probably best known as the sea monster sent by Poseidon to devour Andromeda. Fortunately for her, Perseus arrived on the scene just in time to slay the dreaded monster and claim Andromeda as his bride.

1. Menkar (alpha) – 2.9 - bright orange – meaning: The Nose (Cetus can be found on week 9)

Aira (beta) - 1.7 - flushed yellow - meaning - Star in the Hole

# Mythology of the constellation Scutum

SCUTUM is another constellation named by Johannes Hevelius, this one in 1690. He originally called it "Sobieski's Shield" in honour of King Jan Sobieski III, of Poland, a strong, brave monarch who had prevented the Turks from invading Vienna in 1683 as well as repelling many attacks on his homeland. (Scutum can be found on week 8)

1. Alpha – none – 3.98 – meaning: none

# Mythology of the constellation Sagitta

The constellation SAGITTA, The Arrow, has long been seen as an arrow, first by Hebrews and Persians, and then by Greeks and Romans. There are varying accounts as to which particular arrow it represents, however. One suggests that it is the arrow used by Hercules to kill Zeus' pet eagle Aquila as it pecked at Prometheus every evening. Conversely, another proposes that it is, in fact, the arrow held in Aquila's own talons. Yet another account puts forward the notion that the arrow is that used by Hercules when he killed the birds which plagued the people of Stymphalus. (Sagitta can be found on week 8)

1. Gamma – none – 3.56 – meaning: none

# Mythology of the constellation Equuleus

EQUULEUS, The Little Horse, has several possible mythological identities, amongst them that it represents Celeris, the brother of Pegasus. With regard to the Gemini twins, Castor and Pollux, it has been identified both with the horse given to Castor by the god Hermes and, alternatively, with the animal given to Pollux by Hera.

1. Alpha - none - 3.92 - meaning: none

