

Adler
PLANETARIUM

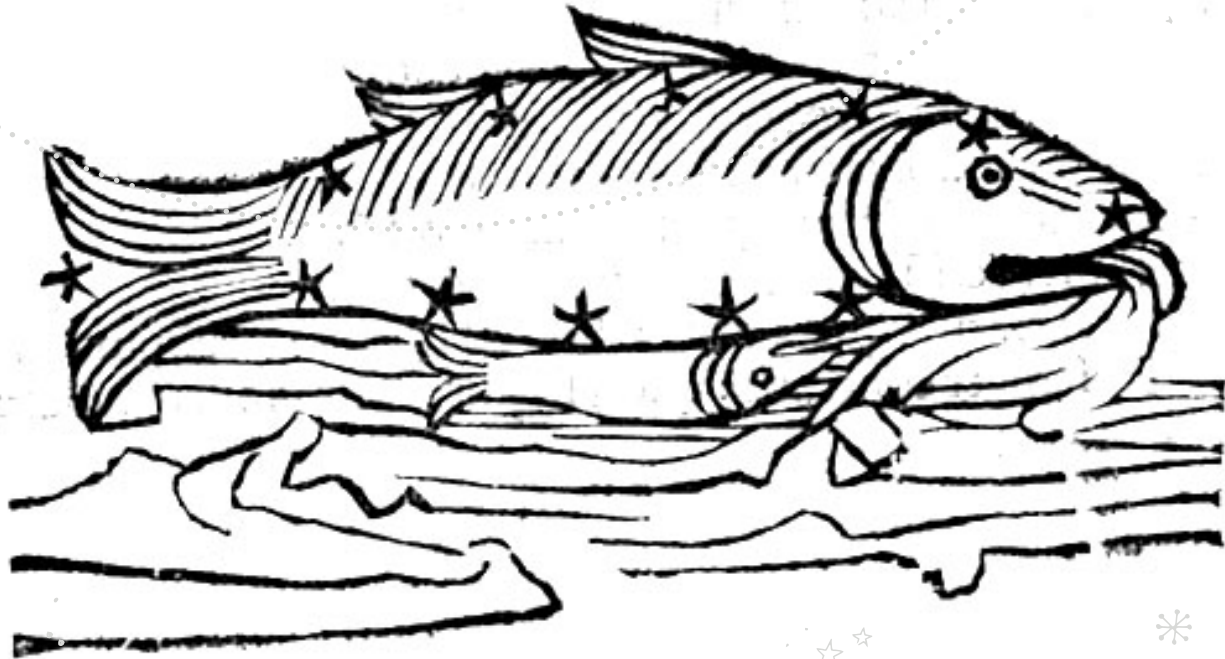
THE CELESTIAL ZOO

COLORING
BOOK

Plate from Andreas Cellarius, *Harmonia Macrocosmica* (1661),
Adler Planetarium collections



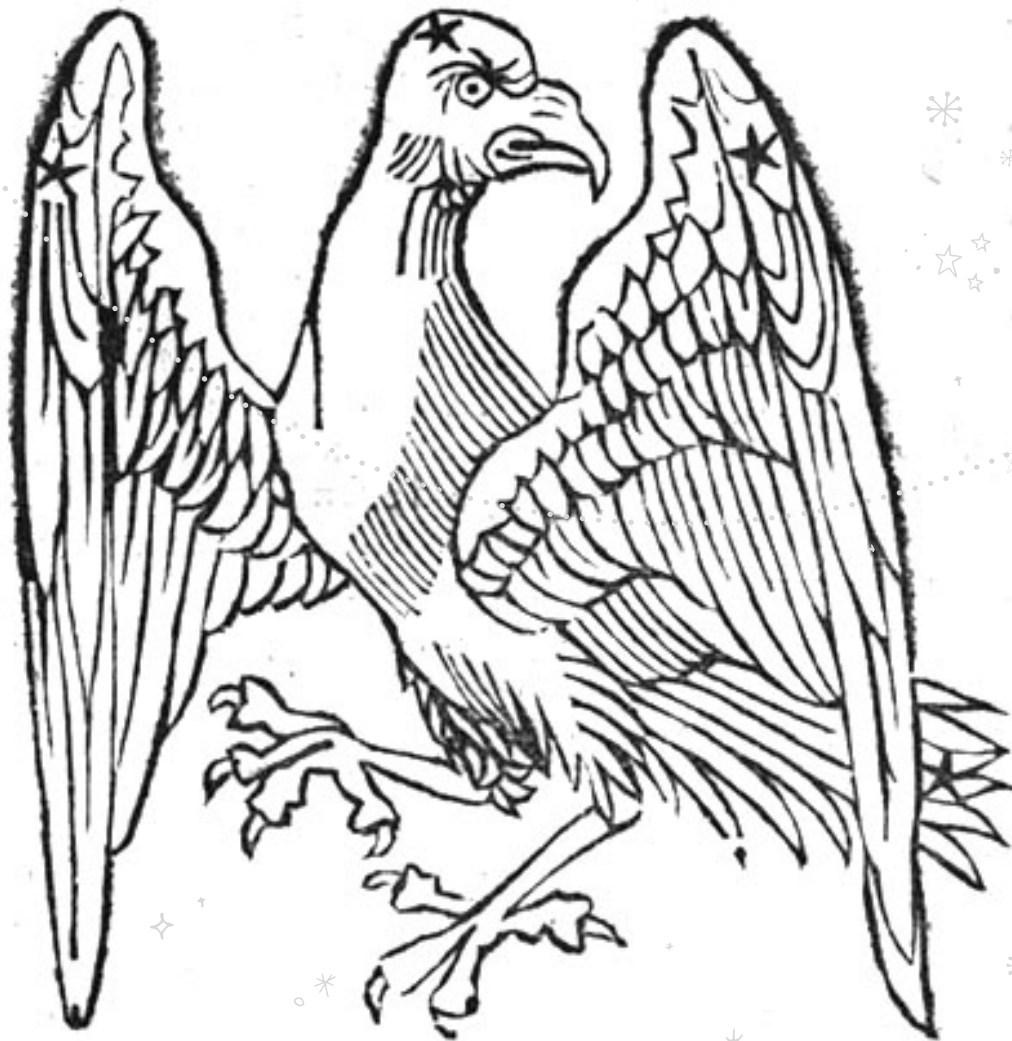
People around the world have found all sorts of shapes among the stars, with different cultures producing their own sets of constellations. Most of these traditions have at least one thing in common: the presence of animals, real and imaginary. These old illustrations from our collections represent animal constellations that have long been part of the Western tradition. Pick up your favorite coloring method and tools, and bring these celestial creatures back to life!



PISCIS AUSTRINUS, THE SOUTHERN FISH

This constellation originated in Babylonia and is related to Middle Eastern myths in which a deity is saved by a large fish after falling into a lake or river. Early printed depictions of Piscis Austrinus, as is the case here, often show two fishes, but this constellation is not to be confused with Pisces, the Fishes. In this rendition of Piscis Austrinus, the stars are purely decorative and do not represent the actual pattern in the sky. But the constellation does include the bright star Fomalhaut, whose name derives from the Arabic for “Mouth of the Fish.” During the Middle Ages, Arab and Persian astronomers played a very important role in preserving and developing the astronomical knowledge they received from Ancient Greece, and many star names used to this day reflect their contributions.

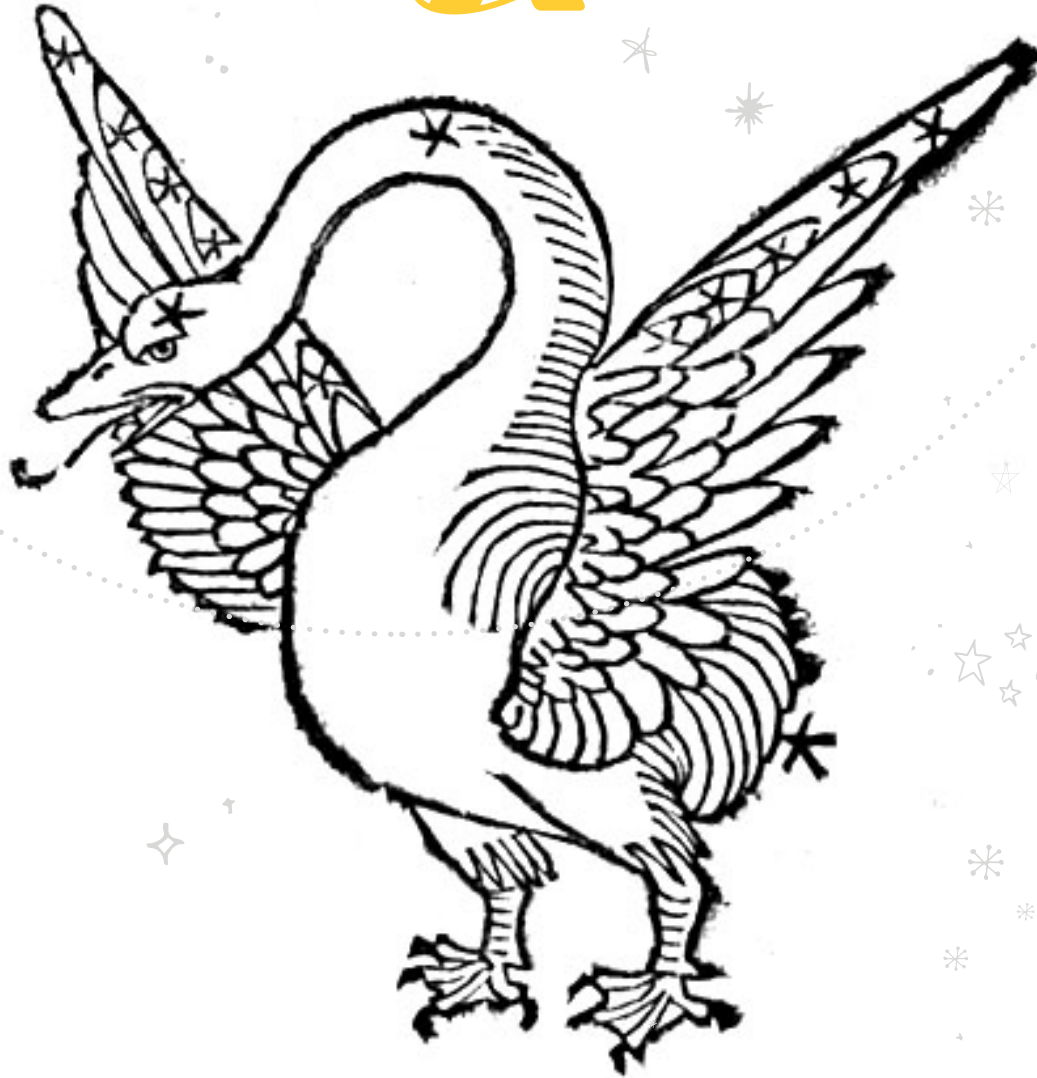
Rufus Festus, Avienus, Arati phaenomena (Venice, 1488), Adler Planetarium library



AQUILA, THE EAGLE

Aquila is associated with various myths from Ancient Greece. In one of those myths, Zeus turns into an Eagle and abducts the young Ganymede, who then becomes the cupbearer of the gods in Mount Olympus. Many historical star maps show Aquila carrying Ganymede, but this illustration shows solely an eagle, with a few stars included for decorative purposes only. As is usually the case with early printed renditions of constellations, the original image is a woodcut, that is, an image carved on a block of wood, which is then inked and transferred onto paper.

Rufus Festus, Avienus, Arati phaenomena (Venice, 1488), Adler Planetarium library



CYGNUS, THE SWAN

This illustration comes from an early printed version of *Phenomena*, a work originally written by the Greek poet Aratus in the 3rd century BC. *Phenomena* introduces the reader to 43 constellations that are still used to this day! Among those is Cygnus, which is associated with several Greek myths in which Zeus takes the shape of a swan. The brightest stars in Cygnus form the shape of a cross. For that reason, it is also known as the Northern Cross (to distinguish it from the Southern Cross). Aratus describes Cygnus as looking hazy in some areas, a reference to the fact that the Milky Way runs through it. None of this is shown in this image though, as it is just an artistic rendition meant to captivate the reader's attention.

Rufus Festus, Avienus, Arati phaenomena (Venice, 1488), Adler Planetarium library



CANIS MAJOR, THE GREATER DOG

Dog lovers will be pleased to know that the constellations we use today include no fewer than four dogs: Canis Major, the Greater Dog; Canis Minor, the Lesser Dog; and the pair in Canes Venatici, the Hunting Dogs. Canis Major, shown here in a purely artistic rendition from a 16th-century book, is the most prominent of the dog constellations. It includes the brightest star in the night sky: Sirius, also known as the Dog Star. In Ancient Greece, the sight of Sirius rising just before the Sun at dawn heralded the hottest days of summer, which became known as the Dog Days of Summer! Chinese astronomers called Sirius the Celestial Wolf.

Astronomica veterum scripta (Heidelberg, 1589), Adler Planetarium library



ARIES, THE RAM

Aries is one of the twelve constellations of the Zodiac, an imaginary band in the sky centered on the ecliptic (the apparent path of the Sun over the course of one year). The word “Zodiac” comes from the Greek for “circle of animals” and reflects the fact that several of its constellations represent animals. In Greek mythology, Aries is associated with Jason and the Argonauts, who engaged in an epic quest for the fleece of a golden, winged ram. The wings, however, were lost when the ram was placed in the night sky.

Astronomica veterum scripta (Heidelberg, 1589), Adler Planetarium library



LEO, THE LION

This depiction of Leo is taken from an early printed version of *Poeticon Astronomicon*, a work attributed to the Latin writer Hyginus (64 BC - 17 AD). *Poeticon Astronomicon* remains a key text to understand the history of the constellations originating in Mesopotamia and Ancient Greece that we still use today. These include Leo, which in Greek mythology represents the lion slain by Hercules as part of his twelve labors. As it often happens, people from other cultures saw different things in this area of the sky. In China, for example, some of the same stars formed the Yellow Dragon.

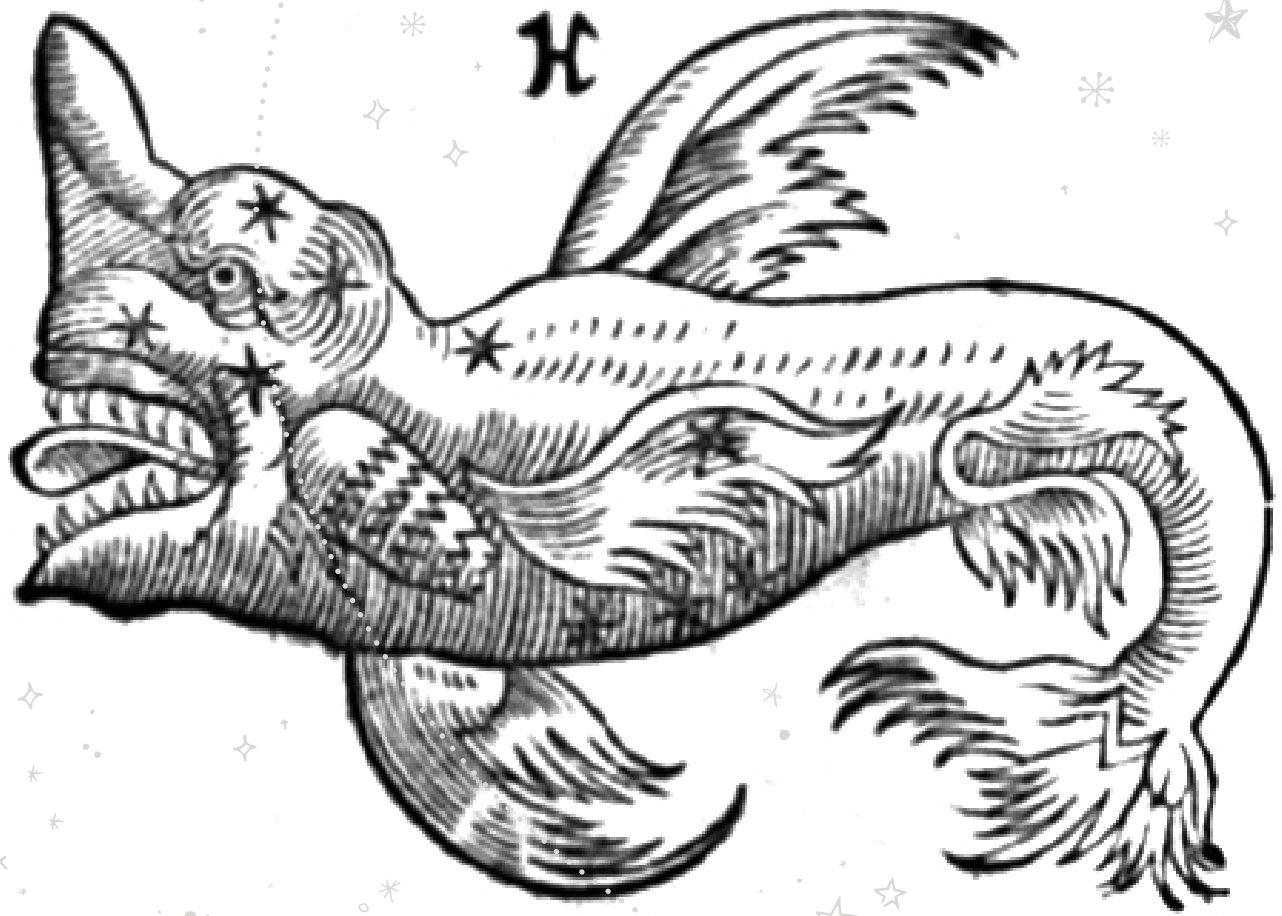
Astronomica veterum scripta (Heidelberg, 1589), Adler Planetarium library



PEGASUS, THE WINGED HORSE

Pegasus is one of the largest constellations in the Western canon. In Greek mythology Pegasus is associated with Perseus, who severed Medusa's head, and Bellerophon, who fought the fire-breathing monster Chimaera. The same area of the sky has different meanings for other cultures. For example, for the D(L)akota the stars of the square are part of Keya, a turtle representing the guardian of life, longevity, and fortitude.

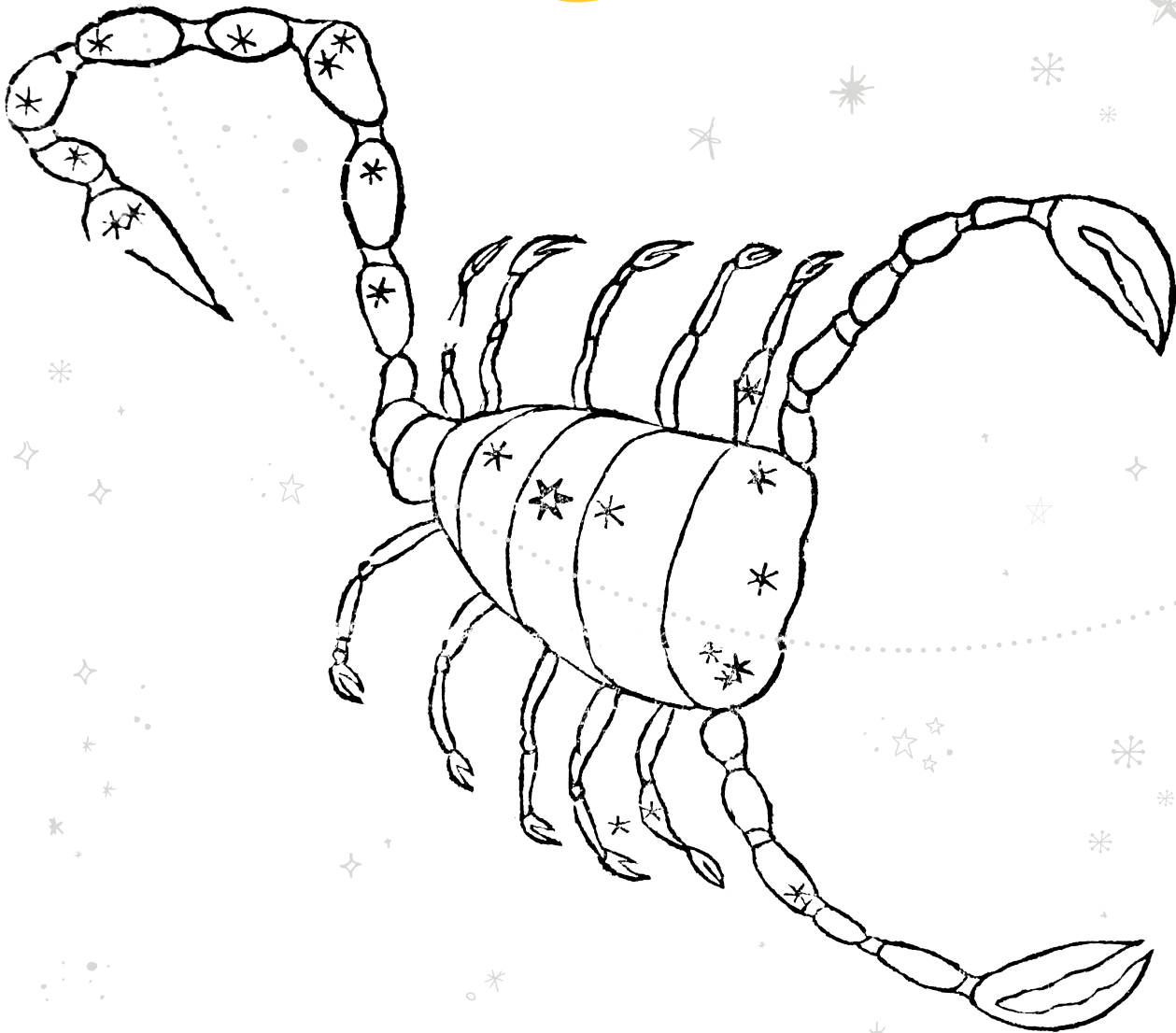
Astronomica veterum scripta (Heidelberg, 1589), Adler Planetarium library



DELPHINUS, THE DOLPHIN

In Greek mythology, Delphinus the Dolphin is associated with the god of the sea, Poseidon. The menacing fishlike creature in this 16th-century rendition of Delphinus is very far from the image of a graceful sea mammal that we nowadays associate with dolphins. Historical representations of animal constellations often seem wacky and inaccurate to modern viewers. But we must put ourselves in the shoes of the artists who produced them. In many cases they would have never seen the animals in question! They would resort to pre-existing illustrations and verbal descriptions, and fill the gaps the best they could using their imagination. After all, constellations are but products of human imagination and culture.

Astronomica veterum scripta (Heidelberg, 1589), Adler Planetarium library



SCORPIUS, THE SCORPION

For the Ancient Greeks, Scorpius was the scorpion that stung the hunter Orion, and included stars that were later used to form the constellation of Libra, the Scales. This 16th-century map shows the constellation reversed, as if represented on the outer surface of a globe, so that the constellations face an imaginary observer on Earth. This “external perspective” may be confusing to us modern viewers, but using the same convention in maps and globes helped relate the stars and constellations in these different study aids as people tracked the apparent motion of the sky.

Giovanni P. Gallucci, Theatrum mundi (Venice, 1589), Adler Planetarium library



URSA MAJOR, THE GREAT BEAR

Ursa Major is one of the best known constellations of the Northern hemisphere, as it contains the asterism (that is, the star pattern) known as the Big Dipper. The Big Dipper is a helpful guide to track down the North Star in the neighboring constellation of Ursa Minor, the Little Bear, and has often been used as a symbol of Northern lands. For example, the flag of Alaska shows the relative positions of the Big Dipper and the North Star in the sky, against a dark-blue background.

Giovanni P. Gallucci, Theatrum mundi (Venice, 1589), Adler Planetarium library



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The images included in this book were taken from the Adler Planetarium's collection of historic star maps from across the globe and spanning more than four hundred years!

You can see more of these images, some in beautiful color, on MappingHistoricSkies.org, a project by the Adler's Collections and Zooniverse teams where you can help identify constellations in our historical maps!

THANK YOU!

