



Gila Monster

➤ GILA monsters are among the ugliest creatures alive. If the creatures were endowed with man's sensitivity to beauty and ugliness, it seems safe to say that the males and females would never be able to overcome their mutual repugnance, and the genus would simply die out.

Gila monsters belong to the genus *Heterodermis*, and the two species are appropriately named *H. suspectum* and *H. horridum*. To all but the most avid gila monster-lovers (there are such people, as you will read further on), both species are equally suspect and horrid.

For one thing, the gila monster enjoys the dubious distinction of being the only lizard known to be poisonous. It is no hit-and-run poisoner like the snake. Once it strikes, it hangs on with all the tenacity of a bad conscience. While maintaining a bulldog grip, the gila monster works its jaws, apparently to insure that the venom from its grooved lower teeth gets into the wound.

In the Southwest where gila monsters are found, some people, possibly out of loneliness, make pets of them. It is said that after a few weeks of captivity, they become "reasonably tame" although they are still nervous and therefore not completely trustworthy.

However, reptile expert Dr. Raymond Ditmars tells us, "after a few months this nervousness wears away. Then they are the personification of good nature, permitting themselves to be handled in the most unceremonious fashion, without the least show of temper."

He offers one caution: Basking in warm sunlight seems to have the effect of reviving in even the most domesticated gila monster its former anti-social ways. A disturbed sunbather will bite the hand that feeds it or any other.

To scientists it is something of a puzzle just why the gila monster should be poisonous. Although it is sometimes known to kill small animals like mice, its principal food is believed to be eggs of snakes and other lizards. Obviously, poison is not necessary for stealing eggs.

The gila monster found in Arizona and

New Mexico has a short stubby tail. Its color is pink or orange with contrasting marks in black. In the Mexican and Central American species the tail is longer, the head is all black, and the light color

is a pale yellow. This species is sometimes called the beaded lizard, with the more familiar name, gila monster, being reserved for the United States species.

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## ASTRONOMY

## Cigar in Milky Way

➤ SOMETHING that looks like a slightly bent cigar has been seen in the Milky Way. It was reported by two astronomers in Ann Arbor, Mich.

While humorists hearing their report might have wondered whether it was tossed from a flying saucer, the astronomers themselves explained that the bent-cigar-looking object is an obscuring cloud or group of clouds of inter-stellar gas and dust.

The cigar-shaped object divides the Milky Way into two branches easily visible to the naked eye, the astronomers said at the dedication of the Heber D. Curtis Memorial Telescope of the University of Michigan.

The astronomers reporting this object are Dr. J. J. Nassau of the Warner and Swasey Observatory, Cleveland, and Dr. W. W. Morgan of the University of Chicago's Yerkes Observatory. For two years they have been studying stars of high surface temperature and great brilliance.

These stars are all at least 1,500 times as bright as our sun and many of them are over 10,000 times as bright.

The two astronomers suggested that our sun is located near the outer border of a spiral arm in our galaxy. If you can picture a large spiral pinwheel, made up of 100,000,000,000 stars intermingled with clouds of dust and gas, you can get some idea of our galaxy, commonly called the Milky Way.

The spiral arm in which we are located extends roughly from the constellation of Carina to Cygnus, the swan. This spiral arm contains the obscuring cloud. Other galaxies also appear to have spiral arms, they stated.

At the same meeting, Dr. Walter A. Baade of Mount Wilson and Palomar Observatories in California suggested that the Andromeda Galaxy, one of the closest to our own could serve as a model for studying ours.

The astronomers held a day-long symposium on the structure of the galaxy, bringing together what is known of it and discussing methods to improve our knowledge of it.

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## OCEANOGRAPHY

## Gulf Stream Meanders

➤ THE Gulf Stream does not stay put. It meanders far from its supposed course, sometimes doubling back on itself, sometimes looping so that it creates vast eddies which break off from the stream.

Rear Admiral Edward H. Smith, who recently retired after 40 years service with the Coast Guard and became director of the Woods Hole Oceanographic Institution, said that this view of the action of the Gulf Stream was confirmed by a recent six-vessel survey of the current. He spoke over the Columbia network as guest of Watson Davis, director of Science Service.

Adm. Smith said that the new knowledge of the Gulf Stream was due in great part to the use of loran—a war-developed radio system of navigation—which permits survey ships to fix their positions as often as they wish. Before loran was introduced it was only possible to achieve accurate fixes twice a day, he said, and thus only the net effect of a current over a half day was known.

"Probably the Gulf Stream is an extreme case," Adm. Smith said. "When other currents are studied as intensively as the Gulf Stream has been studied, it may be found

that they are somewhat steadier. However it is already clear that the variability of the ocean circulation is much greater than had been anticipated."

Right now, Adm. Smith said, oceanographers are studying the how and why of currents. After that picture is clear, the job will be to find out how currents affect the weather. He pointed out, however, that the Gulf Stream would have an effect on the weather in Europe, not in the United States.

"Ocean circulation is much like air circulation," Adm. Smith said, "but it is much slower. A week in the ocean is apparently equivalent to a day in the air, so far as circulation is concerned."

The new director of the Woods Hole Institution said that oceanography is just about entering the phase where it can begin to forecast ocean circulation. With new investigational techniques and instruments, he concluded, oceanographers will be able to describe the movements of the ocean accurately and will be able to understand just what sort of an ocean we are dealing with.

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