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GIANT SEA SCORPION—A model of the 400-million-year-old sea scorpion (left) and the original cast of a similar animal (right) from which the reconstruction was made are being shown by Beverly Barrow, a geology student at the University of Cincinnati.

PALEONTOLOGY

Ancient Scorpions Found

► **GIANT SEA SCORPIONS**, some as long as six feet, lived in seas that covered the Cincinnati area 400 million years ago. Found in fossil form by University of Cincinnati geologists, they are prehistoric relatives of modern scorpions found in deserts. A great fall of volcanic ash preserved the gigantic scorpions as fossils.

Details are reported in a monograph by Dr. Kenneth E. Caster of the University of Cincinnati and Erik Waering of the Pan American Trinidad Oil Company, West Indies, in *Palaeontographica Americana*, publication of the Palaeontological Research Institute, Ithaca, N. Y.

As a result of the Ohio study, Dr. Caster indicated the long-established scientific classification of all sea scorpions may need revision and the kinship of the group to other creatures must be reexamined.

The big find came from near Manchester, Ohio, a short distance up the Ohio River from Cincinnati.

First discovery was made 25 years ago by a University of Cincinnati student working on a highway construction project. He spotted a specimen in the claws of a steam shovel and rescued it for Dr. Caster.

Since then the University geology students and staff members have collected over 100 specimens from the Manchester site—male and female and young and adult fossil scorpions.

Scaly bodies, spiny legs and paddle-legs, with a pair of great sickle-like pincers at

the end of the tail spine made the ancient scorpions formidable creatures.

Nothing like the tail pincers of the Ohio fossil has been reported in the fossil record. Today's insects known as earwigs have a similar pair of forceps.

On exhibit in the University's old tech building is one fossil scorpion nearly three feet long. Fragments of others twice as long are in the collection.

Sea scorpions, technically known as eurypterids, are among the rarest fossils found in the Cincinnati area in the underlying marine rocks that compose the sea-floor of 400 million years ago.

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ZOOLOGY

Now Mink Wears Lenses, Takes Tranquilizers

► **SCIENTISTS ARE TRYING** to quiet down nervous minks.

In an effort to keep the irritable creatures from fighting each other and ripping their mink coats, they are calming them with tranquilizers and changing their vision with contact lenses so they cannot see to bite fellow minks.

So far, however, neither treatment has been very successful, said scientists at Michigan State University, East Lansing. The high-strung animals do not calm down with the drugs, and they kick out the

lenses before they do much good. Minks, members of the weasel family, are notoriously fierce animals, but highly prized for their durable and beautiful fur.

The American mink, *Mustela vison*, is found over nearly all of North America from the Gulf of Mexico to the Arctic, and the European mink, *Mustela lutreola*, ranges from northeastern Asia to Finland.

Within the last hundred years, mink farming has become a valuable industry throughout parts of the United States. The naturally ferocious, high-strung temperament of the animals, however, adds difficulties to the profession.

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PUBLIC HEALTH

Solid Evidence Shows Fish Die of Insecticide

► **THE MASS DEATH** of fish and shrimp in the lower Mississippi and Gulf of Mexico is called by health experts the first solid evidence that the normal use of insecticides may pose a serious threat to man and wildlife.

A new technique in scientific sleuthing has revealed minute quantities of the insecticides endrin and dieldrin in the blood of the fish that have died mysteriously in masses in the early winter for the past four years.

It has long been known that animals store insecticides in their fatty tissues. But these fish had poisons in their blood, where it takes much less to kill.

There is no evidence that the deaths were caused by the accidental spilling of large doses of insecticide into the river. They are believed to be the result of the "normal" use of insecticides during the past four years.

Sen. Abraham Ribicoff (D-Conn.) has ordered public hearings to take "a new hard look at the facts."

"It's time we quit being complacent," one of the Senator's aides told **SCIENCE SERVICE**.

In 1959, endrin, a close relative of DDT, was used on crops for the first time. That was the first winter that the fish died.

Now, with newly developed detection techniques, scientists of the U.S. Public Health Service and the State of Louisiana have found that the fish store as much as six parts per million of endrin in their fatty tissues.

With the arrival of winter, scientists believe, the fish use those tissues for fuel. This probably releases high concentrations of endrin into the blood stream according to Public Health Service scientists.

Endrin and dieldrin are found in the mud and water of the river and far out into the Gulf. Extensive tests have ruled out many other possible causes of the fish deaths.

If this can happen in a river which dumps 300 billion gallons of water a day into the Gulf, what happens where there is less water to dilute the poisons?

This is one of the questions to be examined by the Senate Subcommittee on Reorganization.

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