

ENTOMOLOGY

No Living Honeybee Has Ever Stung a Human Being

YOU have a herd of something over 2,000 honey bees at work for you, and your share of this year's honey crop should be a couple of ounces more than a pound.

This is based on figures given by James I. Hambleton of the U. S. Department of Agriculture. Mr. Hambleton estimated that the hive-bee population of the United States at the height of the honey season is about 280 billion, and that their honey product runs well over 150 million pounds. Dividing these by 125 million, the approximate population of the country, gives the results as stated.

But although bees are thus shown to be by far the most numerous of all animals producing food for man, they are still not domestic animals, Mr. Hambleton continued.

"There are no domesticated bees," he declared. "The bees that inhabit picturesque country-side apiaries are as wild as the bees found in a bee tree in the densest part of an isolated forest. Bees taken from a bee tree and placed in a modern hive are at once just as much at home as if they had always lived there, and vice versa. If a swarm of bees departs from a modern apiary and seeks its abode in some hollow tree, it is able to fare as well as any of its ancestors that knew no habitation other than hollow trees and caves."

The beekeeper does not get results from his buzzing colonies by taming or training the insects. He knows their habits, their natural reactions, and gives the bees opportunities to exercise them in ways that will work to his own profit.

Least of all do bees get to "know" their keeper, Mr. Hambleton stated.

"The modern beekeeper knows that the average life of the worker bee during the active season is only six weeks. The first two weeks the bee spends in the hive attending to household duties, and the other four it works in the fields. Since there is no occasion to open a hive more frequently than once a week, the beekeeper is well aware that the bees never come to know their master. One who understands the behavior of bees can work in another apiary just as safely and profitably as in his own. We can, therefore, dispel at once the prevalent idea that a beekeeper does not get stung because the bees know him. Every person who has occasion to work with bees will be stung more or less frequently, and it is doubtful whether there are any persons for whom the bees have an inherent antipathy and whom they delight to sting. The layman who is stung most is probably the one who is most nervous and afraid of the bees.

"The honeybee is the only one of the common bees that loses its sting in an effort of defense, and in losing its sting the honeybee also loses its life. The sting becomes so firmly anchored in the flesh that the bee cannot free itself, and in trying to tear itself away it is injured internally to such an extent that it dies a few minutes afterward. Thus it is probably safe to say that there is not a honeybee alive that has ever stung a human being. None of the honeybees now in existence has ever had any previous experience or practice in stinging; yet each instinctively knows how to use this very effective weapon of defense."

Mr. Hambleton's address was broadcast over the network of the Columbia Broadcasting System.

Science News Letter, June 2, 1934

SOIL EROSION: A NATIONAL MENACE

an address by

H. H. Bennett

Director, Soil Erosion Service, U. S. Department of Interior

Wednesday, June 6, at 3:30 p.m., Eastern Standard Time, over Stations of the Columbia Broadcasting System. Each week a prominent scientist speaks over the Columbia System under the auspices of Science Service.

EVOLUTION

Shark-Like Pre-Fishes Called "Missing Link"

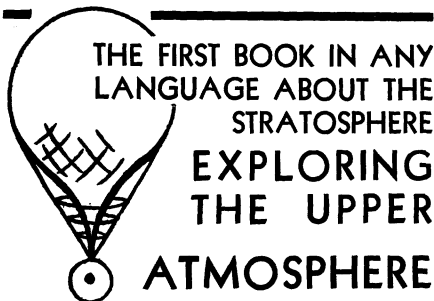
NEWLY determined structures in a group of extremely ancient pre-fishes justifies the creation of a new zoological group that stands midway between the very primitive jawless ancestors of the living lampreys and the true sharks. This contention was set forth by Prof. D. M. S. Watson of University College, London, at a meeting of the American Society of Ichthyologists and Herpetologists in New York.

Detailed studies on large numbers of fossils of the group, known as Acanthodians and previously considered as the most primitive of sharks, revealed, Prof. Watson pointed out, many important differences from true sharks. Chief among these is the development of true bone and tiny square scales very like those of living gar pikes. Studies on a well-preserved fossil brain case show that the arrangement of bones is unlike that of any known vertebrate.

Furthermore, the arrangement of the gill arches and the hyoid arch, which in sharks is reduced to a small spiracle and in fish becomes a part of the jaw apparatus, is unique in showing an intermediate step in the development of the lower jaw from what were originally bony supports for the gills.

Acanthodians flourished in the Silurian and Devonian seas from 360 to 340 million years ago. In general appearance they resembled sharks except that they possessed several more ventral fins than the conventional three pairs found on sharks and modern fish.

Science News Letter, June 2, 1934



The June Choice of the Scientific Book Club By Dorothy M. Fisk. "It is not only the first popular book on the stratosphere, it is among the most interesting volumes that have appeared on problems of modern science. The author writes with fine humor and fine understanding of what laymen should know concerning the balloon voyages into the stratosphere and the latest studies of sound, heat and light."—N. Y. Sun.

OXFORD UNIVERSITY PRESS

114 Fifth Avenue New York