

OUR WONDERFUL WORLD



Inventions & Scientific Discoveries of the Month

Salmon in Prehistoric Rivers

It has long been well known that the salmon alternates between fresh water and salt water, returning after its stay in the sea to spawning grounds in the upper reaches of the river in which it was born. Salmon that have been marked on their way to the sea have frequently been recaptured on entering the river down which they passed, both on the European shores of the Atlantic and on the Pacific coast of North America. This has been regarded as an instance of the cleverness or instinct that is so common in the animal world, but it has now been suggested that the fish is not really impelled by a knowledge of its original home and a desire to return to it. Its behaviour is even more remarkable than that, however, for it appears to be living in the world of the past, and to act as if unaware of the immense changes that have taken place in the configuration of land and sea during past ages.

The explanation that is now offered for the return of the salmon to the river that was its original home is simply that it never leaves it. In prehistoric times immense areas that are now under water were part of the Earth's land surface, and many of the rivers that we now know were very much longer. For instance, some of the salmon rivers of the east coast of Scotland made their way across a great plain, now sunk beneath the North Sea, to join a mighty stream formed by the union of the Rhine and the Thames that flowed northward to a sea coast that stretched roughly from the north of Scotland to Norway. The channels of these ancient rivers still exist under the sea, and it is believed that the fish follow them, just as their ancestors did in prehistoric ages when fresh water flowed along them.

This idea is strongly supported by the fact that salmon have never been found at sea outside the limits of what is known as the continental shelf. This is a comparatively shallow area extending from the continents to a kind of underwater coast or cliff beyond which are the deep waters of

the ocean itself. The salmon appear to collect at the prehistoric estuaries of the rivers in which they were born, and between October and March they return along the underwater channel and up the present-day rivers to reach their spawning grounds.

Photographing a Swordfish Attack

Turning from the salmon to a deep water fish of a far more ferocious disposition, I

swordfish, for immediately afterwards it made a second lunge that ripped one plank entirely out of the boat and caused it to sink. When the fish was hauled on board it was found to weigh 350 lb.

A Ravenous Insect

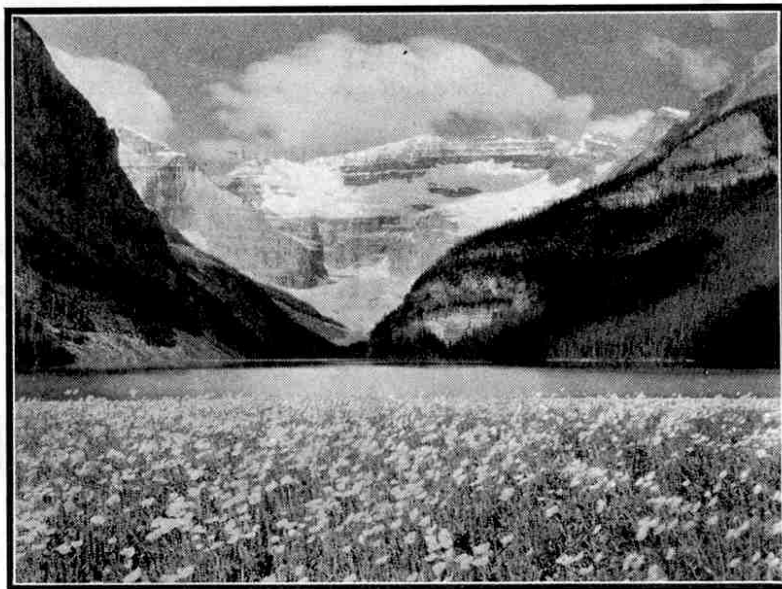
Most readers of the "M.M." will be familiar with pictures of the mantis, the insect that folds its forelegs in an attitude of prayer, and those who live in warmer climates than that of Great Britain may be familiar with the creatures themselves. In spite of the peaceful appearance this remarkable attitude gives it, the mantis is extremely bloodthirsty and has an enormous appetite for all kinds of insects. It lies in wait for its victims on a tree or shrub, with its head bent downward and inward and its long forelegs held before it. The instant a fly or other insect comes near its legs shoot out like lightning. Sharp spines on their inner sides fold round the victim, which is then immediately devoured.

The praying mantis has found its way to the United States. There it was accidentally introduced 30 or 40 years ago, and in many parts of the country has flourished to such an extent that it is now a common object in early autumn. Fortunately no ill effects are likely to follow its arrival there, for unlike many insects that have travelled from one part of the world to another, it is not a nuisance and does not damage crops. On the contrary, it is beneficial, for it devours insects that are destructive to vegetation.

The mantis is about 4 in. in length, and when its wings are spread to the full they have a span of 6 in. It is capable of strong flight and has even been found on the highest windows of skyscrapers in New York.

Putting the Sun to Work

Indirectly all our usual sources of power can be traced back to the Sun. Coal has been described as "bottled sunshine," for it consists of the carbonised remains of plants of millions of years ago. Oil also represents the solar energy of past ages,



A striking photograph of Lake Louise, a beautiful sheet of water in Banff National Park, the famous reservation among the peaks of the Canadian Rockies.

have been interested to find that the attack of one of these creatures has at last been photographed. Stories of swordfish driving their extraordinary weapons through the planking of boats are by no means uncommon, but this record actually showing the fish with its sword partly outside and partly inside a boat is unique. The fish was harpooned from a yacht and a man was sent out in a dory to bring it alongside. He experienced so much opposition that the master of the yacht anticipated trouble and got ready to take a photograph of anything of interest that might occur. He suddenly saw the flash of the fish in the water charging the dory and released the shutter, fortunately catching the fish exactly at the right moment. The attack that was photographed was not the only one made by the