

Some Strange Fishes WHICH CARRY A LIGHT

At first thought it seems strange to hear of an inhabitant of the sea being provided with a light, but such is the fact, and there are very many curiosities about as startling to be found deep down in that vast watery storehouse of wonders.

However, extensively and beautifully Old Sol's rays cover the ever-changing surface of the great waters, they fail to penetrate beyond a hundred yards or so, therefore, the ocean bot-

tom, even in comparatively shallow places, rests in a darkness so intense, that our darkest night may not be compared therewith. Lieutenant Perry described the darkness of the long polar night as so dense that one seemed to really feel it, but we may imagine that the darkness of the ocean bottom is more complete than even that of a polar night.

The ever-wakeful and constant activity of curious humans, in its best and most intelligent efforts termed "science," is responsible for most of the knowledge that is preserved to us from the past, and is constantly bringing to light added knowledge and theories developed from findings of the present.

In the study of the great fish family, with its wonderful variety of forms and colorings, ranging from the beautiful to the grotesque and hideous, there is provided a large subject of surpassing interest.

There are many varieties of fishes which live near the surface of the sea continually, while others are found deeper down, and still others at great depths. The fishes which form the subject of this article, however, are of the lowest order, in one sense at least, in that their lives are spent most of the time on the very bottom of the "fathomless deep," in that total and immense blackness of everlasting night, which continually bathes the vast floor of the ocean's depths.

Certain valuable fossil remains and these interesting specimens of deep-

sea fishes, to be later described, are secured by a system of dredging. These large dredges are attached to cables of great length and let down and dragged along the sea bottom for some distance, when they are hoisted and their contents examined. It was on an expedition of this nature, directed by Mr. Wyville Thompson, of her majesty's steamship "Challenger," in about the year 1875, that the first specimen of "mananias," as one variety of these strange fish is called, was taken. This remarkable specimen of light-bearing fish was brought up at a point in the Middle Atlantic, between the Canary and Cape Verde Islands, where the sea measured 2,400 fathoms in depth, or a trifle over two and one-third nautical miles down! This single specimen, secured at this time, was described in 1878 by the English naturalist, Sir John Murray, and is preserved at present in that great storehouse of curiosities and treasures—the British Museum. It is not a large fish, being only three and one-half inches in length, and of a uniform blackish color. The general appearance of the specimen referred to may be seen from the illustration of a very similar specimen called "mananias shufeldtii."

The peculiar whiplike, jointed appendage projecting from the top of the head is formed from the first cephalic spine, and is provided with a small, pear-shaped, luminous bulb, which may be swung about in various directions. As the fish lies almost hidden in the mud of the sea bottom, this queer little lantern is held aloft, some think to allure prey within handy distance, while others say it serves as an organ of sense to give notice of the approach of any passing fishes which may serve as food for the individual resting so comfortably in the mud. There are about one thousand species in this family of "ceratiidae," and all known forms are of a uniform blackish color—a very fitting color where total

darkness is continually present. Gunter writes that these "bathyal sea devils" are degraded forms of Lophius, their surface representatives. The substance by which their light is produced is unknown. Their bones are extremely light and thin in texture and all other parts of their bodies are so loose in texture that the specimens feel flabby as a dish-rag when brought to the surface of the water. This sort of non-resistant body is the kind nature furnishes for the deep ocean depths where the water pressure is so tremendous.

A remarkable characteristic peculiar of the gill opening, which is back of the side, or pectoral, fins. The gill openings are so small in the specimens shown that it is not very easy to find them. The mouths of all the species are huge, and the tiny black eyes of most of these fishes are conveniently located near the top of the head, so that they may "keep an eye out" for any creature that is attracted by the suspended light. The black skins of these strange little fishes are completely covered with minute, embedded, conical spines, which afford some protection for the bodies which are so very loosely constructed. Both jaws are armed with medium-sized sets of sharp teeth, which have the novel peculiarity of being depressed at the will of the individual. The vertical position of the mouth opening is very convenient for its possessor, but not so much so for any friend who happens to "get taken in."

The outlines of these fishes are anything but graceful, and it is a curious fact that such bulky forms are not fitted for rapid travel. The revelation, as far as comparative form is concerned, of these lumpy fish to the graceful and narrow trout might well be compared with that of the canal boat to the sloop-yacht.

There are two other illustrations which give two views of another, grotesque specimen of the same family, called "Linophryn Lucifer." At the time his picture was taken he was suffering from the effects of an overfilling dinner, as will be observed by a careful examination of his distended base line! His mouth was strongly protruded, he has actually eaten a fish, which, measuring longer than himself! The drag line hanging from his under chin is not his mother's apron-string, as one might imagine, but serves the purpose of a sense organ as it drags along the ocean bottom, letting its possessor know when he has passed some morsel which is worth stopping for. One would think the lantern held so near his eyes would disturb his vision, but we may suppose he is used to it, as it appears to be built there to stay.

This grotesque specimen of fish was found floating on the surface of the sea by Capt. P. Andresen, while on a voyage to the West Indies. It was in May of 1877, while he was capturing turtle in his boat, about three degrees west of Madeira, that his attention was attracted to this queer little fish, not quite two inches long, on the water's surface. Capt. Andresen wrote that it was not surprising that the little fish was almost motionless while floating there, as he discovered it had just swallowed a fish longer than itself! He said it did not lie on its side, but was apparently unable to swim away with such a cargo as it encompassed. After such a find as that,

the captain gave up turtle hunting, and rowed back to the ship, where he placed the little fish in spirits for safe preservation. It was later presented to the museum of the University of Christiansia.

The grotesque specimen called "Melanocetus Johnsonii," named after its discoverer, Mr. Johnson, who found this strange little fish at Madeira, is the only known specimen so far procured.

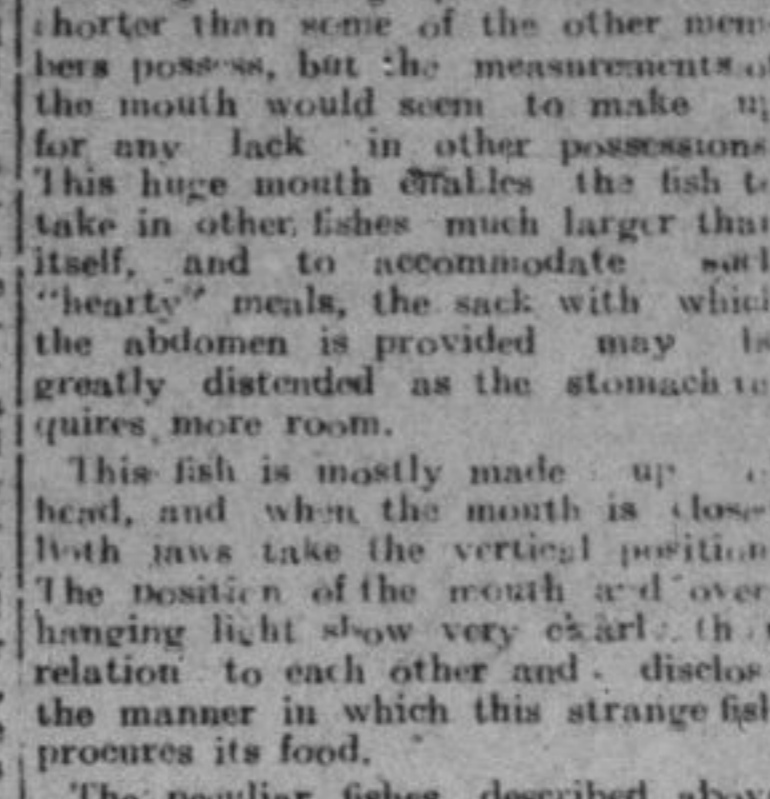
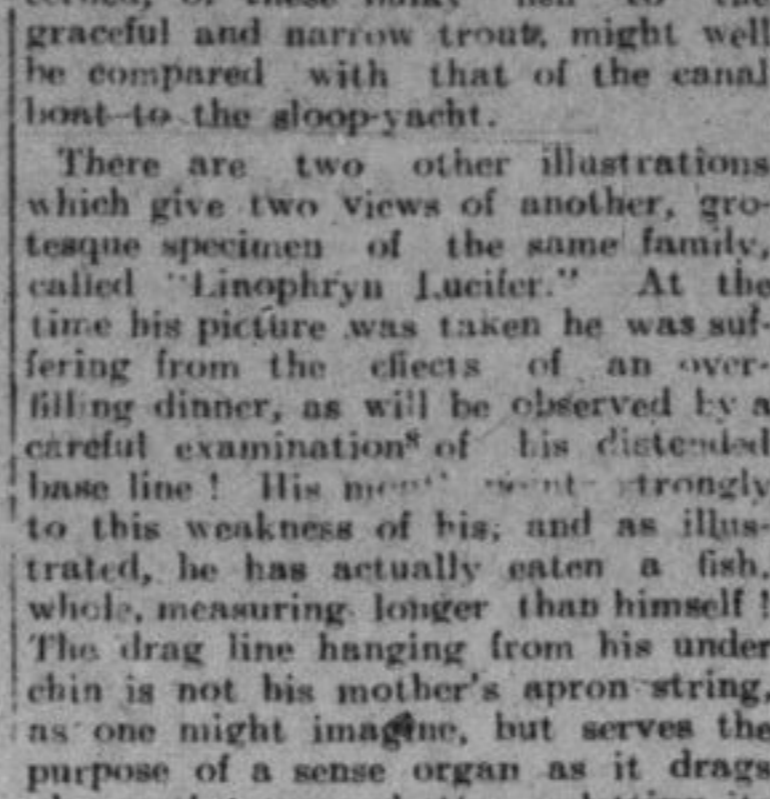
Its light-bearing spine is much shorter than some of the other members possess, but the measurements of the mouth would seem to make up for any lack in other possessions. This huge mouth enables the fish to take in other fishes much larger than itself, and to accommodate such "heartily" meals, the sack with which the abdomen is provided may be greatly distended as the stomach requires more room.

This fish is mostly made up of head, and when the mouth is closed both jaws take the vertical position. The position of the mouth and overhanging light show very clearly their relation to each other and disclose the manner in which this strange fish procures its food.

The peculiar fishes described above belong to the large order of "Angler" fishes, also called "Frog" fishes, a hideous specimen of which is pictured herewith. These latter fishes are found all over the sea bottom, from the depths to more shallow places, and from their unimpressive appearance it is probably just as well that they reside far away from the gaze of those who enjoy forms which are more pleasing. They lie submerged in the muddy bottom of the ocean, waving the tiny flag with which their long front spine is tipped, and when a two curious customer happens along to investigate the matter, he is "carried away" by a

surprise which is especially prepared to serve what long use and natural selection have done in modifying the side line of these grotesque fellows, so that they partake more of arms than of fins, and are only used to grub about among the weeds and grasses of the ocean's bottom in the more shallow places. You will notice the backward direction of the teeth of the lower jaw. This arrange-

ment assures a more than slim chance for the escape of any victim which once gets nabbed by the powerful jaws of this hidden enemy. The method of spawning of these fish is as remarkable as the fishes themselves. The eggs are laid in large quantities which form a raft-like sheet, sometimes three-feet wide by thirty feet long and containing nearly one and one-half million of eggs, which float upon the surface of the water where the sun's warmth may keep them. This is certainly a handy way of sending the hatching



Front view.

Linophryn Lucifer.

Melanocetus Johnsonii.

Mananias Shufeldtii.

Mananias Shufeldtii.

Mananias Shufeldtii.

value of animal life from deep dredging, as wide-awake fish are not to be taken in such a manner, so we probably have little idea of the actual population of forms of the creatures which pass their lives so far beyond the ken of man. Nothing of much account would be gained from the scrapping of a great dredge along the ground of some plateau or prairie, from great heights above, to ascertain what manner of living creatures inhabited this world of ours which we think as full of many wonderful and interesting things. The really of deep sea dredging is enormous, and we may give much credit to man for what his energy and skill have already accomplished. Time may arrive when men may explore the ocean's depths to more advantage, but the enormous water pressure of the lower regions would seem to preclude a personal investigation, unless some great pressure-resisting diving-bell could be invented for the "creeps" occupation of deep sea investigation.

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LORD ASHTON MAD

ORDER FOR MORE PAY RECALLED BY BOSS.

Regarded as Great Benefactor, Too—But Lancaster Merchant Can't Tolerate Language of His Own Men.

London, Dec. 9.—Lord Ashton, known as the benefactor of Lancaster, whose linen factory finds employment for thousands of hands, has issued an important notice to his workpeople. It says:

"We arranged some time ago that the wages in more than one department should be advanced, and an order was given to that effect. We have now to say that no advance will be made, the reason for which you are aware of."

"All workmen not satisfied, and who think they can do better or even as well elsewhere, may have our sympathy, but we shall not matter how large may be the number, as we would rather close the whole works for ever than give an advance of wages in any department at the present time. We have also to say that in the event of the works being closed through railway or coal strikes the wages will not be paid."

"In future, when trade is bad, we shall only keep men whom we regard as friendly and loyal to their employer, who for nearly half a century has upheld the cause of the working classes, and we shall not, as in the past, keep those who are bereft of all sense of what is due not only to their employer but to themselves."

"It is with sorrow—sorrow much greater than we can express, that we are compelled to give this notice, but the present state of things is so intolerable that we are determined to put an end to it, no matter at what cost."

This notice has caused deep regret among many of the employees and townspeople.

During the recent municipal elections Lord Ashton was attacked by the supporters of a labor candidate with regard to the wages he paid to his workpeople. This, it is understood, he regarded as a personal attack, and therefore resented.

Lord Ashton's benefactions to Lancaster include the Williamson Park (Williamson is his family name), new municipal buildings, costing over £100,000, a Queen Victoria statue, and a remarkable temple-like structure, built at a cost of \$150,000, which commands splendid views of coast and hills.

Lord Ashton is sixty-nine years of age. His charities are immense, and he is one of those wealthy men who bestow their largesse secretly. He was created a peer in 1895, and lives a quiet secluded life at Ryelands, his home at Lancaster.

When Lord Ashton was asked the reason of his notice he said: "This is not an incident in a long story. For forty years I have done all that I could for Lancaster and my town-

AUTOMOBILE FADS.

Convertible Hat Figures Among Novelties.

The latest fad in automobile hats is the "convertible" hat. It has a broad crown and a wide soft-felted brim. It may be worn turned up in the back and at the front, like a continental of old. Two straps button under the chin to hold it in place. The hat is of a smooth, tweed mixture, faced with solid colors. The dark iridescent green is faced with pale blue.

Motorists' heads are much used, as they are lighter than fur ones. They come in the natural color, and in white for evening wear. They have long earflaps in front and behind. Motor cosmetics each side of the nose.

Rubber coats with hoods attached seem to be the best rain protectors. They may be had in gray and in self-tint.

Bright red automobile veils are much worn with fur soft hats and are becoming to blonde and brunette alike. The button veil is liked, for it is shirred and finished with a white tulle to hold it in place.

Men are wearing fur caps to match the collars of their fur lined coats. Persian lamb and seal being much used.

One of the new ideas in fur coats is "dry skin" raccoon. The skins are so fitted and matched that they do not show where they are joined as ordinary coats do. They are in loose models, satin lined.

It is a fad now to design and have made to let bags to carry one's toilet articles instead of buying fitted cases.

Leather pillows in all colors, having buttons and loops at the corners, to hold the dolly in place, make a comfortable addition to the comforts of the car.

The rather odd looking black and white, civic fur coats seem to be gaining in favor as motor coats. The fur is soft and warm and the coats are not bulky.

A smart tweed coat in Raglan model is lined with muskrat and has a deep river collar of seal skin, which is rather a new combination.

MODERN SERVANT, ELECTRICITY

Science is Now Knocking Loudly at Kitchen Doors.

Popular Mechanic Magazine. Electricity, the silent, mysterious handmaid of modern scientific and mechanical progress, is knocking at the door of every home. She is everywhere, and she has no followers. She waits for "afternoon tea." She lets you fix her wages. The children do not bother her.

So long as there is a trolley line from which you can obtain necessary encouragement when her spirit is low, she works just as well in the country as in the city. She is never ill, never tired. She does not sleep. She always works at a maximum speed, which you fix yourself.

As she has upset all laws and customs of the industrial world, so she is prepared to silence forever that domestic cynic whose religion is simulated up in the creed—"woman's work is never done," and to make possible an emphatic affirmative answer to the long-discussed question of whether or not "two can live as cheaply as one."

It is probable that electricity now costs more than it will ever cost again. The more you use the current the less it will cost—your per unit and the more people using it the less it will cost them individually. There is a very good reason for this: It costs just as much, requires just as much labor, proportionately, to furnish 10,000 homes with current for lighting three hours as it would to furnish current for cooking, washing and ironing for the remainder of the same day.

The difficulty is that the power plants must be prepared to put out a maximum amount of energy during one short period of the twenty-four hours. Their plant gears on just the same, perhaps with a slightly reduced output at the times the maximum is not needed.

At the present time it is not exaggeration to state that the work of the household can be done by electricity as cheaply in many cases and in thousands of small towns, as it can be done with gas, coal, or women power. In some cities the monthly bill will be found to average more.

This refers entirely to doing the work in the home. It has no reference to heating, because until the happy time arrives when current reaches its lowest cost, or at least until it is considerably lower than it averages throughout the country to-day, there will be no economy in attempting to heat the home by electricity.

Dowager Queen of Holland. Queen Wilhelmina's mother, the dowager mother of the Netherlands is a cheery, kindly faced woman in her early fifties, very like her sister, the Duchess of Albany. Her simple goodness and unaffected manner have made her extremely popular with the Dutch, and this in spite of the fact

that she had a great deal of prejudice to overcome when she first left her German home for Holland. Widowed in 1890, when her daughter was ten years old, Queen Emma's chief function in life was to prepare the future queen of the Netherlands for her high position, and this, it is estimated on all sides, she has done thoroughly well. A curious incident is narrated in connection with her marriage in 1879 to old King Wilhelm of Holland. The king had proposed to her very beautiful sister, Princess Pauline, who rejected him because of his age. "I would never refuse to become a queen," said the young Emma, to her haughty sister. The king heard of this remark and Princess Emma became queen of the Netherlands, while Princess Pauline married an obscure German prince.

Everybody's friend is nobody's confidant. There is more unfair than some specimens of the fair sex? The easiest way to acquire a fortune is to inherit it from your father. If a woman is afraid of losing her hair she might lock it up in a safe.



MISS WYNIFRED KINGSTON. With William Hawtree, in "Dear Old Billy" at the Grand on Tuesday, Dec. 12th.

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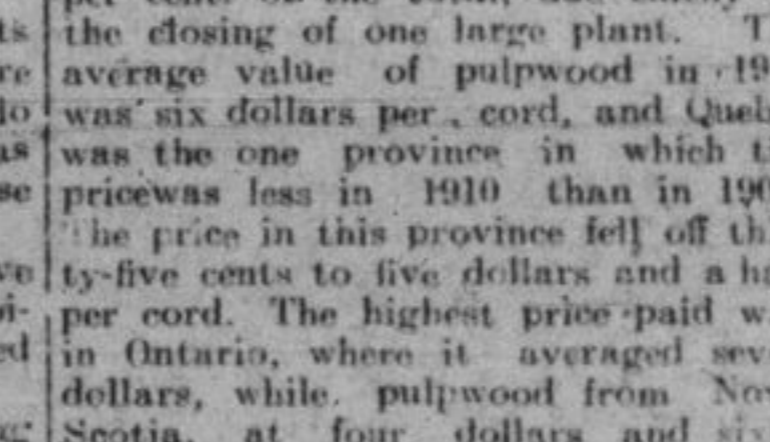
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TORONTO

Pulpwood Consumption of 1910. Nearly six hundred thousand cords of wood were ground into wood pulp by fifty-one pulp mills operating throughout Canada during 1910. Statistics compiled by the forestry branch of the department of the interior show that the total value of this wood was three million five hundred and eighty-five thousand dollars, and that it was converted into four hundred and seventy-five thousand tons of wood pulp. Quebec is the premier pulpwood province of Canada, because of its extensive spruce and balsam forests suitable for pulpwood. The twenty-five pulp mills in Quebec reported the consumption of fifty-seven per cent. of the total for Canada, or twenty-three thousand cords more than in 1909. Ontario likewise increased the amount consumed in its fifteen pulp mills by over twenty thousand cords, and used, over one-third of the total consumption, forming with Que-

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