

REPORT ON WILD LIFE

How the basking shark feeds

By the C N Naturalist

THE basking shark is one of the largest fishes inhabiting British waters, and a special study of its growth and natural history in the North Sea was recently made.

The basking shark is so named because of its habit in summer of lying at the surface with its dorsal fin showing, as if it were basking in the sunshine. In fact it is feeding on the tiny marine life called plankton, which it sifts from the sea with the aid of its specialised gill-rakers.

In the summer each has from 1000 to 1300 gill-rakers, about four inches long, to filter off the plankton which enter with the sea-water into its open mouth.

The plankton it feeds upon consists chiefly of a tiny crustacean called *Calanus* about one millimetre long, as well as fish-eggs, arrow-worms, and the larvae of crabs and of barnacles. The creature filters over 2000 tons of sea-water an hour and "basks" at the surface when it finds a great concentration of plankton food.

The recent studies in the North Sea have shown that in October and November the basking shark loses its gill-rakers and undergoes a resting, non-feeding, deeper water life, during which a new set of rakers is developed and is ready by the following February.

It has been estimated that when feeding in summer, the basking shark swims at the slow speed of only two knots, requiring only 0.33 horse power of energy per hour. The efficiency of the shark's great tail by which it is propelled is about 80 per cent, compared with 70 per cent in ships' propellers.

The study of basking sharks from the Hebrides shows that few if any of these fish exceed 30 feet in length, despite many books claiming that they reach 40 feet or more. Their maximum weight is a little over four tons, but the brain is small in proportion to this size.

SOME 90 square miles on either side of the upper Towy valley have been recommended for a Welsh nature reserve by the Nature Conservancy. It is the home of the last kites in Britain, where about 14 pairs of these slow-flying, fork-tailed hawks nest in the trees and cost bird-lovers over £200 a year to protect them.

The island bird observatory of Skokholm, off the south-west coast of Wales, has carried out a seven year study of the wheatear's habits. To study the temperature at which wheatears incubate their eggs, and the temperature to which the eggs drop after the parent bird leaves the nest, a special platinum-wire thermometer has been used.

It has a cable leading to a special circuit, which reads the resistance of an instrument, placed in the nest, to changes in air temperature. This thermometer and its cable enable scientists to sit in the bird room at the observatory and read the temperature of nests 300 yards away. In cold seasons the eggs will fail to hatch if the temperature drops too low.

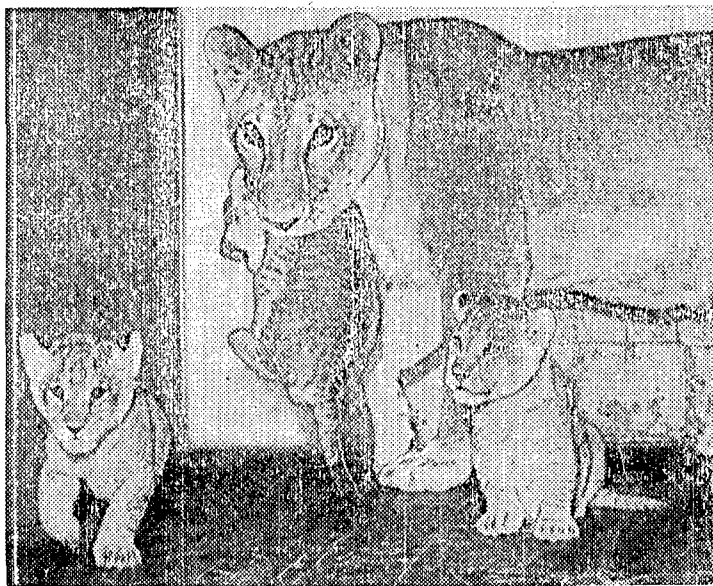
BIRD-WATCHERS have just completed a census of all the heronries in England and Wales as a check upon the first national bird census of the country's heronries, made in 1928. Since then it has been found that many herons die during severe frosts, but in succeeding years the numbers of nests in the tree-top heronries gradually increase until a peak is reached in their population.

Then the number declines once more to the average or normal population in relation to the food supply. This is mainly fish, frogs, and other aquatic creatures. Another census is being made of the buzzard because it feeds mainly upon rabbits and may spread the dread rabbit disease, myxamatosis.

SOME uncommon bird events this season have been the nesting of a pair of blue-headed yellow wagtails and of a pair of nightingales in the Wirral peninsula of Cheshire and near Chester, and of the black guillemot on the North Wales coast near Llandudno. In Sussex there is nesting news of four pairs of peregrine falcons on the chalk cliffs, of the garganey duck at Rye harbour gravel pits, and of the black redstart in Eastbourne and on a school at Bexhill.

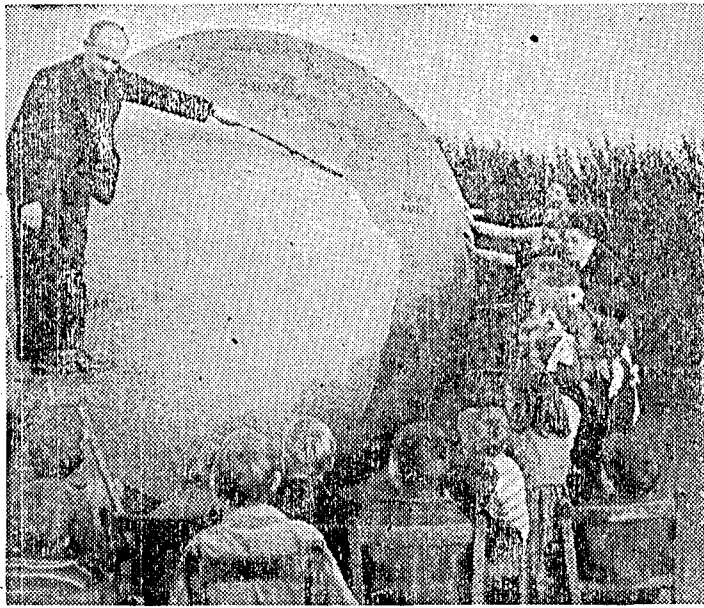
A ROE deer, nicknamed "Sherry," has become the pet of Mrs. Campbell-Grey, living in her orchard near Holker, in Lancashire. As a fawn Sherry was found injured on the road one night three years ago. The little animal was taken home and soon recovered strength and health.

Last year, at breeding time, she leapt the five-feet high orchard wall and went off to the fells where the wild roe deer live. When all hope of seeing her again had been given up, Sherry returned to the orchard where she is still living, tame enough to feed from her owner's hand. E. H.



Safe with mother

One of Mother Lion's cubs was quickly taken into safe custody when the photographer called at Copenhagen Zoo.



School in the open air

In the picture on the left we see children of the Open Air School at Swinton, Lancashire, making use of a giant globe, ten feet in diameter, during their geography lesson. Below: the very young people of the Westfield Nursery School in Edinburgh enjoy their games while high in the air, for their playground is on the school roof.

SIXTEEN-TON PEANUTS

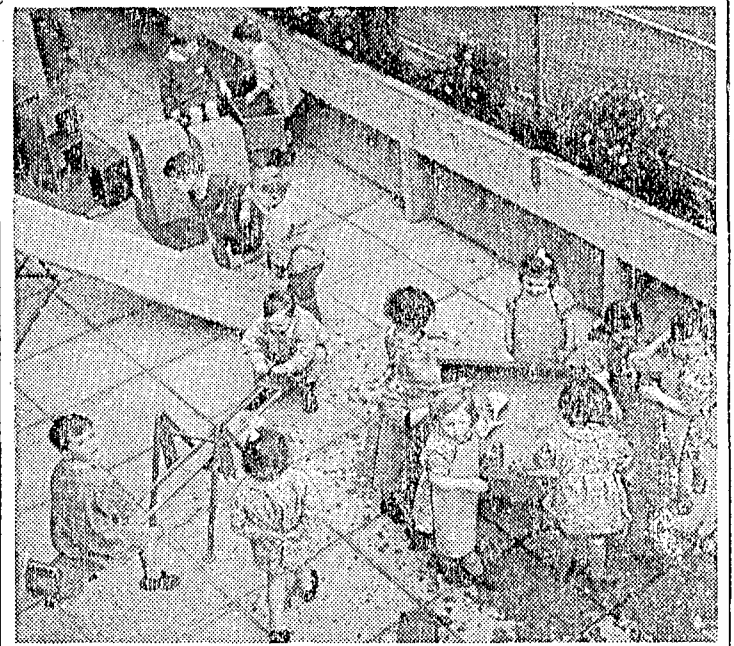
The famous Peanut Club has some strange members on its roll. The latest additions are two 16-ton Bristol Freighters of the cross-Channel air ferry.

The Club, which was founded before the war, now has well over one million members throughout the world. The cost of membership is one shilling, and the subscriptions go towards the upkeep of the Queen Victoria Plastic Surgery Hospital.

FUNDS FOR NEW WARD

Funds from the Peanut Club were recently donated towards the cost of building a new £27,000 Children's Wing for the hospital and now members, who are joining at the rate of 1500 a week, are helping to equip the Wing.

Not long ago Donald Sylvester, 14-year-old schoolboy of East Grinstead, decided to enrol as members "Victor Baker" and "Victor Charlie," the two oldest Bristol Freighters in existence. Donald, with three other Peanuts, won a newspaper competition for an essay on flying. The prize was a trip to France for the day, and so he enrolled the planes he flew in during his trips out and back across the Channel.



MEMENTOS OF LIVINGSTONE

A mass of papers and other belongings of Dr. Livingstone were found not long ago in an attic, where they had lain in a trunk for 40 years. Now the collection, apart from a few personal relics, has been given to the Central African Archives at Salisbury in Southern Rhodesia.

The discovery was made by the famous missionary-explorer's great grand-daughter, Miss Diana Livingstone-Bruce of London, when moving house after her father's death.

The great value of the collection was immediately realised. It would undoubtedly have fetched large sums if sold, but Miss Livingstone-Bruce has preferred to give most of it to the region which Livingstone first revealed to the civilised world.

One of the relics is Livingstone's consular cocked hat of black cloth and gold braid; still in its metal case. It was obtained by him, doubtless, when he was appointed British Consul at Quilimane in Portuguese East Africa in 1858, prior to the expedition on which he discovered Lake Nyasa.

The collection also includes 40 original water-colours by Thomas Baines, the artist who accompanied one of the expeditions. These cover a wide range of subjects: Native types, flowers, river scenes.

Among the great amount of

material in Livingstone's own handwriting are journals of his expeditions to the Zambesi and Bechuanaland. Two of the journals, it is believed, have not hitherto been used by historians, and some of the new material will be published next year to commemorate the explorer's discovery of the Victoria Falls.

Gratitude for the gift has been expressed throughout the Federation of Rhodesia and Nyasaland. A cable to Miss Livingstone-Bruce from the Chief Archivist, Mr. V. W. Hiller, said: "My warmest thanks for your magnificent gift to the Central African Archives. Government are deeply appreciative. This is a great thing you have done for us."

S. AFRICA'S FIRST ORANGES

In June 1654 Jan Van Riebeeck, leader of the first Dutch settlers at the Cape, planted a few orange trees at a spot where Cape Town now stands.

From that small beginning has grown South Africa's great orange industry. Fruit farms now exceed 53,000 acres and send 800 million oranges a year to Britain alone.

To mark the 300th anniversary of Van Riebeeck's action, the mayor and citizens of Pretoria sent greetings to those who deal with the fruit in this country.