

RARE BUTTERFLY IN KENT

Comma Seen on the Wing
FIRST APPEARANCE FOR A
QUARTER OF A CENTURY.

By Our Country Correspondent

The comma butterfly has made its appearance at Stanford, in Kent, for the first time for many years.

The comma butterfly was once very common all over England, and was plentiful as near London as Epping Forest. But for many years past it has been getting rarer and rarer, and of late has been practically confined to a few favoured localities, in Herefordshire, Worcestershire, and Monmouthshire.

Isolated specimens have, however, been taken from time to time in other counties, but it is a quarter of a century since one was seen in Kent. Its appearance now, therefore, is interesting, although, of course, this must be a hibernating specimen that has been awakened by the warmth of the sun or a fire in a room usually left fireless. Possibly it may have been from a breeder's cage.

When rare creatures appear, if collectors would only let them alone for a time they might multiply and become common once more, adding to the beauties of our lovely countryside. But, unfortunately, the rare creatures have no chance of doing this. They are generally killed on sight.

Fortunately, the comma is so like the tortoiseshell that it may escape the collector. The curious, scalloped edges to its wings give it the appearance of a very tattered tortoiseshell, scarcely worth the trouble of catching.

The unique feature about it, however, is the curious white C, or comma-shaped mark, on the underwing.

The perfect insect emerges in July or August, although sometimes there are two broods, one in June and the other in August. Some specimens are dark brown, and it is suggested that these are the females, while others which are very variegated are thought to be the males.

The comma butterfly is generally seen flying round hops, hence it should be common and familiar in Kent. It also flies about currant and gooseberry bushes, nettles, and elm trees.

The caterpillar, which is reddish or flesh-coloured, with bright orange on the back and a black head, frequents currants and raspberries, hops and nettles, elms and willows. The chrysalis is reddish, with pink spots.

THE MOON NEXT WEEK



The moon at 9 a.m., summer time, on April 19

Newspaper Notes and Queries

What does Mg. mean? It is the chemical abbreviation for magnesium.

What is a Shock Absorber? An appliance under an aeroplane to lessen the shock when the machine alights.

What is a Lazaretto? A public building for the reception of diseased persons, particularly those with contagious diseases; also a place for the fumigation of goods landed from a ship previously in quarantine.

PARROT OUTLAW OF NEW ZEALAND

Bird That Will Soon Be
as Extinct as the Dodo

\$1000 A YEAR PAID FOR BEAKS

Last year the New Zealand Government paid out nearly £600 for the beaks of parrots.

They were those of the kea, a bird whose portrait was given in the C.N. some time ago, and, as five shillings is now paid for every beak brought in, the shooting of keas has become almost more profitable in the Canterbury and Otago districts, where it is found, than ordinary farmwork.

Before long, it is believed, this interesting though destructive bird will be as extinct as the dodo and the moa. The news will please farmers; but Nature lovers will be very sad at the loss of still another creature of the southern hemisphere. There would seem, however, to be no hope for the bird.

The kea is a creature of the mountains, and lives mostly in remote regions among the snows. But, though its natural home is in the rugged mountains, it frequents the sheep stations, for it has developed a lamentable taste for mutton. Sitting on the back of a sheep, it will, with its powerful beak, eat right into the body of the animal, so that the creature dies.

Five Shillings a Beak

On a certain farm some time ago the young sheep were attacked one night by keas, and 200 beasts were slain. Such deeds, of course, necessitate that the bird should be outlawed, and a fierce war is now being waged against it.

The Government originally offered one shilling for every beak brought in, but as cartridges were very dear it did not pay to kill the birds. In 1920 only £46 was paid in bounties for keas' beaks, which meant that only 920 birds had been killed. Last year the bounty was raised to five shillings a beak, and about £1000 has been paid out, representing 4000 beaks.

The whole countryside in the kea districts is now mustered for war on the bird, and, as some county councils offer half-a-crown a beak in addition to the five-shilling bounty of the Government, there is every inducement for the creature's extermination.

THE BLESSING OF SILENCE

City Noises That Damage Our
Nerves

Silence is now declared to be a condition of health.

It is no use to say "I have trained myself so that I do not hear any noise." We hear every noise that is about whether we are conscious of it or not, and the exertion of "not hearing" is an enormous drain on our strength.

Instruments have been invented which record the energy wasted in not hearing sounds. A man may read a book and say that while he is reading it he does not hear the noise of buses, motor-horns, newsboy cries, the wind in the chimney, and the rain on the window-pane; but the instruments prove that he hears them all.

Far from resting in his chair, he is putting forth tremendous nervous energy not to hear the clamorous sounds of a modern city.

Fortunes await all those who can rob the modern city of its roar. Let the inventor dream of a silent factory and an office that is as still as a greenwood in summer. The medical correspondent of The Times declares that Londoners suffer far more than they know from the incessant assaults of noise on the drums of their ears, and adds that "pure air, sunlight, and silence are a trinity of great healers."

C.N. QUESTION BOX

Little Puzzles in Natural History

Answered by Our Natural Historian

All questions must be asked on postcards, and not more than one question on each card.

When Do Tits Begin to Build?

Most of the tits begin building in April; the long-tailed tit in March.

What, Beside Ant Eggs, Can Goldfish be Fed On?

Finely crushed vermicelli, which should be put into the tank sparingly.

Of What Use Are Snakes?

If this means of what use to men, the answer probably is that they are useful in keeping down other creatures that might become great pests.

Have Lions Ribs Like Human Beings?

All mammals have ribs attached to the backbone, and enclosing a space in which the various organs, like the heart, lungs, and stomach, are protected.

Does an Ostrich Sit on Its Eggs?

Sometimes, with its breast resting upon the sand in which the eggs are laid, a hollow being scooped out for the purpose. But the hatching is done principally by the heat of the sun.

Is it Cruel to Take a Baby Bird from a Nest and Keep it in a Cage?

Wild birds are rarely happy in cages, even if taken young, and in any case to remove young from the nest is cruel to the parents. Only birds whose parents and grandparents lived in cages should be kept in this way.

How Long Does an Eagle Live?

No one can say with certainty, but eagles in captivity have lived over a hundred years. At Vienna a golden eagle in the Royal Park reached 104, and one caught in Norway in 1829 lived in England for 75 years, laying 90 eggs during its last thirty years of life.

What is the World's Average Birth-rate for a Year?

The population for 1921 is given as 1700 millions, and in 1886 it was 1483 millions, so that the average for 35 years would be just over six millions a year. For the previous twelve years it was over seven millions.

What is a Male Hawk Called?

The male hawk used in falconry in olden times was the male peregrine falcon, and was called a tiercel, or tiercelet. The name is derived from a Latin word meaning a thirdlet, from an idea that every third egg of the falcon produced a male.

Does a Stick Insect Molt?

The curious creatures known as stick insects go through the usual forms of insects—egg, larva, pupa, which differs scarcely at all from the larva and imago, or perfect insect. In some cases the larva changes its skin several times, and if it loses a leg by violence a new though smaller leg will grow.

What is the Difference Between the Songs of the Mavis and Missel-Thrush?

The missel-thrush's song is loud, wild, and disconnected, with the call-note "tic" repeated several times, and an angry screech when the bird is alarmed. The mavis, or song-thrush, also has a loud song, but it is inspiring though somewhat monotonous from constant repetition of certain notes. It has been likened to the words, "How d'ye do; bo-peep; Judy; pretty Dick." The call-note sounds like "chick," and the bird screams when alarmed.

Have Animals a Sense of Fear?

No one who has seen a pigeon about to be crushed by a python or a rabbit soon to be caught by a stoat can doubt that there is animal fear. The whole question is dealt with very fully in an interesting and well-illustrated article in the new number of the C.N. monthly—My Magazine for May—now lying on the bookstalls with this paper.

SATURN & HIS RINGS

TINY BODIES REVOLVING
ROUND A PLANET

Where to Look in the Night Sky

A WORLD IN MINIATURE

By Our Astronomical Correspondent

Saturn continues to be a prominent feature of the night sky, being now visible as soon as it is dusk in the south-east above Jupiter and to the right.

He appears a little brighter than last year, for his wonderful encircling rings have opened out a little, and possessors of telescopes are now able to get a view of their northern "surface." Though they seem to have a surface it has been proved that these rings are composed of innumerable minute bodies, or particles, revolving around the planet in unending streams, and so they appear to us as continuous rings of light.

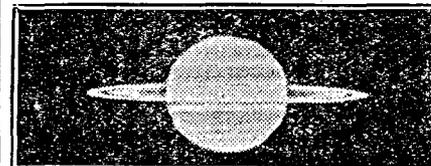
These rings are of different degrees of brilliance, the third, or inner, ring being quite dusky, and becoming almost imperceptible near the planet. Obviously, these revolving particles, which have been likened to little moons, are less numerous here; indeed, the ball of the planet can be seen through this ring, which has been called the crape ring.

Making a Model

Those who have no opportunity of seeing Saturn through a telescope should construct a simple model.

A small ball, say two inches in diameter, should be used to represent Saturn. For the rings a sheet of very thin card or stiff paper will be the most practicable, though this is, in proportion, much too thick, for the diameter of Saturn's globe from north pole to south is 69,770 miles, while his rings are barely 50 miles thick, his globe thus being nearly 1,400 times the thickness of the rings.

We cut a circular disc $\frac{1}{4}$ inches wide, which represents the full width of the rings, about 172,000 miles; then,



Present appearance of Saturn

with compasses, we make a circle, $2\frac{1}{2}$ inches in diameter, in the centre of the disc. This leaves a band all round it $1\frac{1}{8}$ inches wide, representing 42,000 miles.

Now we will divide up this band with ink into the three rings. Mark the main division between the two bright rings with a black line nearly a sixteenth of an inch wide, representing 2300 miles. This is Cassini's Division, and it should be about a quarter of an inch from the outer rim of the disc. We have thus the outer ring, approximately 11,000 miles wide.

The Crape Ring

The middle and brightest ring will be represented by making a faint line nearly half an inch inside the thick black line. This is supposed to be 18,000 miles. The remaining three-eighths of an inch of card to the inner rim shows the area of the faint crape ring, and should be shaded to black at the inner rim.

Now we cut out the central white portion of the card—that is, $2\frac{1}{2}$ inches in diameter—and the rings are ready to put round the ball, when it will be found that the inner rim is only an eighth of an inch away from it. This is almost the exact proportion that the inner rim is above Saturn's surface—5000 miles, amazingly close.

The rings may be supported by pins stuck in the ball, and if the model is held some distance away from an artificial light, which represents the Sun, and tilted slightly as in the picture, we shall get a fairly true rendering of this planet as he now appears, including the shadow cast by the rings on Saturn and the shadow of his globe on the rings.

The Earth on the same scale should be a small pea about three-sixteenths of an inch wide.

G. F. M.