

### The Supposed "Fascination" of Birds.

It is well known that the stoat (*Putorius ermineus*) sometimes performs extravagant antics by way of ruse in approaching rabbits or small birds, which, in the opinion of some persons, are "fascinated" or hypnotised by the display. I incline to believe that the subject of these manoeuvres becomes so deeply interested, amused, or puzzled by the movements of the acrobat that it defers flight until too late. This view has been strengthened by what I witnessed from my library window in the spring of 1917. A male blackbird was sitting on the open lawn; a stoat was racing round the bird at high speed, now rolling itself into a ball, racing again, then leaping fully 2 ft. high and turning an aerial somersault, and again racing in circles. How long the performance had been going on before I happened to become a spectator I know not, but it went on under my eyes for perhaps seven minutes, during which time the blackbird never stirred and the stoat continued in violent movement. Every moment I expected that it would spring upon the bird, which it might easily have done, but nothing of the kind happened. Suddenly, in the middle of the performance, the blackbird flew away; and the stoat, apparently not caring to exhibit without a "gallery," resumed its normal gait and disappeared in the bushes.

Now if the blackbird was "fascinated" in the sense of an arrest of motor volition, what broke the spell? The acrobat was at the height of its antics when the bird flew off. One may assume, I think, that the latter's interest in the performance was absorbing up to a certain point, for it is contrary to the habits of a blackbird to sit motionless for many minutes on a spring morning; but it does not seem as if its volition had been affected.

In his great work on British mammals Mr. J. G. Millais describes instances of the stoat (than which there is no more bloodthirsty animal) resorting to these acrobatic feats with no deadly purpose, finishing up by romping with its audience of young rabbits and worrying them in make-believe. In the case I have described it does not appear that the stoat had any intention of making its breakfast off the blackbird.

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### Girvanella and the Foraminifera.

BULLETIN No. 104 of the United States National Museum contains the first part of Mr. J. A. Cushman's "Foraminifera of the Atlantic Ocean." Workers in this group will find it of much value to have a complete and well-illustrated account of the foraminifera as occurring in the Atlantic. In this paper there is, however, one doubtful point in regard to affinity in which two distinct organisms are confused, and this, if not corrected, will mislead the student. I refer to the relegation of Brady's *Hyperammia vagans* to the genus *Girvanella*, Nicholson and Etheridge. It is a generally accepted opinion that *Girvanella* is probably related to the blue-green algae (Cyanophyceæ), as shown by Rothpletz, Wethered, Seward, Garwood, and the writer. In the earliest descriptions Nicholson and Etheridge, it is true, held *Girvanella* to be of foraminiferal affinities, and Brady compared it to *H. vagans*, but the consensus of opinion is now in favour of its plant origin. As I have elsewhere shown (Aust. Assoc. Adv. Sci., Adelaide, 1907), its larger dimensions, arenaceous shell-wall, bulbous primordial chamber, simple, not branching, tube, and absence of septation separate it from *Girvanella*. In following Rhumbler (1913),

Cushman includes other species of thread-like rambling and attached organisms. Whether they are all foraminiferal or algal in affinities can be determined only by careful examination by means of microscope sections, at the same time bearing in mind that the structure of the true *Girvanella* tube is not a mosaic of particles held by cement, but a finely granular structure such as is seen in other living calcareous algæ. The point here raised is directed against the placing of the genus *Girvanella*, as defined by Nicholson and Etheridge, with the Foraminifera.

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National Museum, Melbourne,  
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### Feeding Habits of Nestling Bee-eaters.

THE paragraph in NATURE of March 28, 1918, p. 70, upon a paper in which Mr. W. Rowan describes the defæcation of the nestlings of the British kingfisher, leads me to mention the habits of a bird also nesting in tunnels: I refer to the bee-eater (*Merops*). Mr. J. E. Ward, recently a fellow-passenger from New Guinea, told me that the young of a Papuan species defæcate outside the nest but within the tunnel. The fæces attract flies, which breed in the mass, and the resulting larvæ form the food of the very young nestlings. As the flies later emerge, the young birds have grown sufficiently to be able to catch the insects on the wing.

Mr. Ward noticed that nestlings in captivity did not gape for food as do most young birds, and he was thus led to investigate the subject, with the result above mentioned.

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S.A. Museum, Adelaide, September 6, 1918.

### THE COMMERCIAL USE OF AIRSHIPS.

THE future of the rigid airship from the commercial point of view is brought prominently into notice by a paper lately issued by the Air Ministry entitled "Notes on Airships for Commercial Purposes." This memorandum discusses at length the possibility of the use of airships in the immediate future, and enters into a detailed comparison between the large aeroplane and the rigid airship. At the outset it is stated, however, that the two types of aircraft, as at present developed, are not likely to compete with one another seriously, since their characteristics are widely different, the aeroplane being essentially a high-speed, short-distance machine, while the rigid airship is a long-distance, weight-carrying craft. The great endurance of the airship and its power of remaining in the air during a temporary breakdown of the machinery are valuable assets when long flights over sea or mountainous country are contemplated. The safety and comfort of passengers are considered to be greater in the case of the airship than in that of the aeroplane. In connection with the possibility of loss by fire in the former case the Air Ministry points out that there has been only one such loss since 1914, despite the fact that about 2½ million miles have been covered, and that in this one case the cause of fire has been ascertained and eliminated. It is conceded that at present the airship is more affected by bad weather than the aeroplane, but it is stated