FLOWERS OF THE PRIMROSE DESTROYED BY BIRDS

WE have received a number of answers to Mr. Darwin's letter on this subject in NATURE, vol. ix., p. 482; these we have thought it advisable to bring together here. On the general question of the destruction of flowers by birds, Prof. Thiselton Dyer writes as

MR. DARWIN remarks that he has never heard of any bird in Europe feeding on nectar. There is perhaps one well-authenin Europe feeding on nectar. I nere is perhaps one went-aumenticated instance in Gilbert White's "Selborne" (illustrated edition, p. 186): "The pettichaps.... runs up the stems of the crown imperials, and putting its head into the bells of those flowers, sips the liquor which stands in the nectarine of each petal." This is the more curious, because, according to Kirby and Spence ("Entomology," 7th edition, p. 384), this plant "tempts in vain the passing bee probably aware of some noxious quality that it possesses." I do not know how far this is true, but it has a peculiar odour which makes it rather unpopular as a garden plant.

I have, in my note-book, another instance, also from the Liliacea, of a plant visited for nectar in an extra-tropical country. Barber relates that in South Africa "the long tubular flowers of the aloe are well supplied with nectar, and this provision affords during the winter season a continued store of food for our beautiful sun-birds," the numerous species of the genus Nectarinia (Journ. R. Hort. Soc., n.s., ii. 80).

Two other cases of the destruction of flowers by birds occur to me. I was assured this year that the flowers of the common crocus are persistently destroyed by sparrows, at least in the neighbourhood of Hammersmith. The base of the perianth tube, which is the usual seat of any secretion of nectar, is here beneath the surface of the ground; perhaps, however, the style and stigma are attractive to the birds. I did not investigate the matter at all closely, but my informant was an observant person, who I think would be likely to have satisfied himself that the sparrows really did the mischief, the effects of which were obvious enough. If so, we have a clear instance in crocuscating of an acquired habit on their part.

The other case, that of the destruction of flower-buds of fruit-trees by bullfinches, is probably well known. The mischief is said to be out of all proportion to any benefit the birds can derive from it, as regards food. Such a visitation would obviously tell heavily against the plants in any country where they formed part of the indigenous flora, and had to take their

chance with the rest.

Dr. J. H. Gladstone writes, that in his garden the flowers of the primroses have been similarly bitten off, and the crocuses also. He says-

ONE morning some weeks ago I especially remember seeing the beds and the gravel walks strewn with the yellow petals of the latter flower, which were severed from their stalks, and bore abundant marks of the sharp beaks which had torn them asunder. I cannot learn that anyone saw these London birds at their destructive work, which was probably done before any of us were stirring.

Mr. T. R. Archer Briggs, of Plymouth, writes-

I HAVE been familiar with the fact to which Mr. Darwin directs attention for as long a period as that during which he says it has engaged his own, without, however, my being able to point out the author of the mischief. In the neighbourhood of Plymouth it is no uncommon thing to find the flowers both of the primrose and polyanthus bitten off and lying around the plants exactly as Mr. Darwin has described; indeed, so often does this occur here, that I have known it a source of annoyance to cultivators of the latter plant. When residing some years ago at a house in the parish of Egg Buckland, about four miles from Plymouth, I remember to have repeatedly seen the polyanthus flowers in the grounds so destroyed, and to have heard it asserted that the redbreast was the culprit; but of this no proof was brought forward. The locality is a land of springs and streams, and it could not have been a want of water that led the destroyer to do the work there.

The tubular portion of the primrose is much infested by small insects (thrips?), and I have sometimes thought that a bird, for the sake of feeding on these, might be led to bite the flowers; but, on the other hand, they are so minute that one can scarcely think they would attract its notice.

I would say, in reply to Mr Darwin's queries, that primroses are in profusion about Plymouth (at least beyond the immediate neighbourhood of the town, whence they have been rooted out by wretched fern- and wild flower-grubbers), but I have never seen the flowers bitten off to such an extent es in the small Kentish wood he refers to, or in a sufficiently large quantity to materially affect the numbers of the species here.

The Rev. H. C. Key, of Stretton Rectory, Hertford, says that primroses being in great abundance in his neighbourhood, he was led by Mr. Darwin's letter to make a careful search for flowers bittten off in the way he describes, but he failed to find even one.

It is obvious that the abundance of other food for which birds have a preference—such as apple, pear, plum, and cherry blossoms afford—may possibly have saved our primrose flowers. from destruction; but, taking into consideration the fact that animal food must necessarily be supplied to the young birds at this season, I should be disposed to suggest that the primroses Mr. Darwin speaks of have been mutilated by birds rather for the sake of procuring thrips and other beetles, which are attracted by the poster than for the procurity of the poster than for the poster than the poste attracted by the nectar, than for the nectar itself.

I find the untouched primrose flowers here swarm with beetles and acari; but the great profusion of apple, and pear-blossom, &c., close at hand, may prove more attractive to the birds from the flowers being more open, and therefore more easily accessible.

Mr. G. M. Seabroke writes-

I HAVE observed the same thing as he relates in my small garden in this town. Nearly all the early buds from some twenty primrose plants were bitten off, and birds of some sort were undoubtedly the perpetrators of the mischief. I laid the blame on the sparrows, but did not see them in the act. This is the first year that I have noticed this form of depredation.

Mr. T. R. Stebbing, of Torquay, writes as follows:-

A FORTNIGHT ago the bank on either side of the road from Kingsbridge Road Station to Salcombe were covered, for many miles, with a brilliant profusion of primroses in bloom. In all this long range of country, eighteen miles in all, there was no appearance anywhere of that destruction of blossoms as to which Mr. Darwin makes inquiry. The attention of my companion and myself was especially directed to the primroses throughout our route not made to the large hours and made and made and the second of the country to the large hours are the second of the country to the large hours are the second of the country to the large hours are the second of the country to the large hours are the second of the country to the large hours are the second of the country to the large hours are the second of the country to the large hours are the second of the country to the large hours are the second of the country to the large hours are the second of the country to the large hours are the second of the country to the large hours are the second of the country to the second of the country to the large hours are the second of the country to the second of the country to the large hours are the second of the country to the country to the second of the country to th our route, not merely by the lavish and unexpected beauty of the display, but by the look-out which we were keeping up for white or red varieties. Among the myriads of plants with the ordinary yellow blossom we noted five with white and two with pinkish flowers. On returning over a portion of the same road ten days later, we detected as many as seven plants with the pale-red or pink flowers, but none of these were blooming freely like the white and the yellow flowering-plants in the same district.

It may be worth noticing that this great stream of primroses flowed down from the rather bleak upland near the railway right into the fertile and sheltered valley of Salcombe, so that in one district or the other the birds might have been expected to seek the nectar, had they been to the manner born, in this part of the

A correspondent, E. T. S., says that-

In the north-west corner of Hampshire the birds have the same taste as in Kent for the nectar of primroses and polyanthuses. A few weeks ago a correspondent wrote theoce that this spring the blackbirds "were as bad as peacocks," whose well-known habit of cutting off the blossoms of polyanthuses, carnations, lilies, and any particularly choice tropical plant that they can get hold of, makes them a gardener's despair. A peacock who resided for a short time in the neighbourhood referred to, might possibly have taught the native birds the trick, but this is hardly probable, as he died three winters ago, and the present year, when all spring flowers have bloomed earlier and more abundantly than usual, is the first in which his example has been extensively followed. I should doubt the practice being limited to a single species. Sparrows certainly gather flowers very carefully; I have seen them almost strip a bed of the variegated arabis, though in this case the flower-stalks were carried away and used, not for food, but in nest-building. Does any other bird use fresh flowers for that purpose?