

but his ratio of 1 : 10 is clearly intended for comparison with my ratio of 1 : 25. It would be interesting, therefore, to know the sex and age-groups that make up a "unit herd" of eleven, of which one must, presumably, be an adult stag.

Further confirmation that the "unit herd" must be nearer 1 : 25 than 1 : 10 is found in Mr. Wallace's figures. In 1939 he states that 7,000 stags were killed in "the regular deer forests" at which period the total deer population was placed "at about 200,000 head". If all the stags killed pre-war were fully matured—which is most unlikely—this would represent a ratio of about 1 : 29. A number of younger stags would, however, be included in the 7,000 killed and if this was only 10 per cent, the ratio would automatically increase to about 1 : 31.

Mr. Wallace doubts my figure of "approximately 11,000 red deer stags killed annually" pre-war. All I can say is that my figures were obtained personally from the owners, tenants, or agents of some 600 properties in Scotland, of which less than 200 were the "regular deer forests" that supplied the 7,000 stags referred to by Mr. Wallace. Is it not reasonable to suppose, therefore, that a further 4,000 stags could not have been killed on the 400 or so properties not considered by Mr. Wallace, particularly as some of them were capable of yielding over thirty stags per season?

As I pointed out previously, experience on an island forest showed that the "unit herd" figure of twenty-five live deer of *all ages* to every adult stag killed had proved, over a number of years, to have been an accurate basis for calculating the island's deer population. I am still convinced that the same basis can be used for the mainland *as a whole* even though it may not be true for small areas in which deer of both sexes are only seasonally in residence.

For an animal that does not reach full maturity until its seventh year, it is quite impossible, as Mr. Perry suggests, that the "unit herd" can be as low as eleven (a ratio of 1 : 10) and still *maintain* itself. Not every hind of breeding age will breed annually and in addition to the adult stag—and presumably adult hind also—that will be shot from the "unit herd" each season, winter casualties and calf mortality have also to be taken into account.—G. KENNETH WHITEHEAD.

RED DEER IN IRELAND

As anxiety has been expressed about the red deer of Killarney, the only remnant of the indigenous red deer in Ireland, I have

made inquiries from the several authorities responsible. Reports from the Muckross and Kenmare estates and from the Bourne Vincent Memorial Park state that poaching is negligible and that the stock is being well maintained.—SECRETARY, F.P.S.

HARE INVESTIGATION

The Mammal Society of the British Isles is starting an investigation into the status of the brown hare, *Lepus europaeus*, in Britain. In particular it is hoped to record any changes in distribution and numbers which may follow the spread of myxomatosis in rabbits. Presence or absence records will be collected from as many parishes as possible. Experiments in recording the size of hare populations are in progress and should enable some sample censuses to be made in March, 1955. Will those who can help in this investigation please write to Dr. N. W. Moore, The Nature Conservancy, Furzebrook Research Station, Wareham, Dorset.

NOTICE

MAMMALS IN BRITAIN

A week-end course for naturalists, arranged by the Department of Extra-Mural Studies, University of Birmingham, 3rd to 5th December, 1954, at Westham House, near Warwick. Inclusive residential fee, 37s. 6d. Programme and full details from Captain Frank Owen, Warden of Westham House, Barford, Near Warwick.
