

## SHORT NOTES

## GIANT FALLOW DEER

In an article on the deer of Epping Forest, published in *Oryx*, March, 1954, I referred to a large fossilized horn of a fallow buck found at Clacton and dating from the time when this country was a promontory and not an island. This fossilized horn is in the Natural History Museum, South Kensington. Since writing the article I have visited Germany and Denmark. In Germany I saw a number of horns of fallow bucks, which appeared to be of the same type and size as the fossil horn from Clacton and was told that all these large fallow came from Schleswig Holstein, but that it was feared that they had been exterminated by occupation troops after the late war. In Denmark, however, I was told that these large fallow still exist in parts of Jutland. I saw an excellent photograph (see illustration) of a live buck in a Danish book, *Hjorte Bogen*, by F. W. Braestrup, published in 1952. This buck appears to be of the same type and size as the large fallow from Schleswig Holstein.

Fallow deer from other parts of Germany seem to resemble our modern fallow and I was told that some special quality in the soil of Jutland and Schleswig Holstein was believed to account for the remarkable growth of horn and body of the fallow from those districts. I was glad to learn that given the proper conditions parts of Europe can still produce giant fallow resembling the fossil from Clacton.—ANTHONY BUXTON.

## RED DEER IN SCOTLAND

Anthony Buxton is probably right to query the accepted ratio in Scottish red deer of one big stag to twenty-five other deer. This ratio has, I believe, been established only for certain forests in the West Highlands and Islands. It need not necessarily be that in other forests. During the past ten years, for example, a random series of counts in the forests of the western Cairngorms and northern Grampians have given a ratio of only 1 : 10. Thus, any estimate of the total number of deer in Scotland, which is wholly or partly calculated on the 1 : 25 ratio, may be misleading. In this respect the Deer Committee's present estimate is, I believe, 85,000 deer in the regular forests, plus an unknown number outside these.

Major Buxton makes the point that no young stags would be allowed near the hinds in a harem. My experience has been that one must not, perhaps, be too dogmatic on such points.



*[Th. Kjaer*

GIANT FALLOW DEER IN DENMARK.

Young stags can sometimes be seen feeding peaceably in a master's harem—just as it is quite untrue to state (as is almost invariably done) that the sexes only run together during the rut. Often in the summer, and regularly during the winter, large mixed herds of big stags and hinds, together with calves or young beasts, are to be seen feeding together all day in Central Highland forests. Only in the late spring and early summer is it unusual to see hinds among the big stags, as at this season the hinds tend to scatter out in small groups to the most inaccessible moors, while the stags are still clinging to the lower glens and pinewoods, until their June ascent to the high tops.—RICHARD PERRY.

My recent notes on Scotland's red deer population have aroused certain comments from Major Anthony Buxton and also from Messrs. Richard Perry and Frank Wallace, so I would like to enlarge upon what has already been written.

In the first place, Major Buxton says that I "seem to suggest that the normal ratio in red deer is one big stag to twenty-five other deer", and draws a parallel with conditions in the Caucasus where he "never saw more than four hinds with a stag (and seldom that number) in the rutting season". On the Continent the red deer inhabit forest country and in consequence large harems are not so easily acquired or maintained as on a bare hillside. However, my note was *not* concerned with conditions that prevail in the Caucasus or with the ratio of stags to hinds during the *rut*, but solely with the number of deer of *all ages* for each adult stag (seven years old) in *Scotland* as a whole. In this "unit herd" there will not be more than fourteen hinds whilst in addition to the seven-year-old stag there will probably be a six-year-old, one or two five-year-olds and several younger stags. In other words, therefore, there are, in each "unit herd" at least three stags of breeding age which, given forest conditions (i.e. woods, as on the Continent) one or more of the younger males might be able to hold two or three hinds. The remainder of the "unit herd"—some eight animals—will consist of calves, knobbers and yearling hinds.

Every "unit herd", which is quite distinct from a "harem herd", *must* have its complement of calves and immature beasts. For this reason, therefore, I cannot believe that Mr. Richard Perry is correct when he states that in the western Cairngorms and northern Grampians the "unit herd" is only eleven, i.e. one big stag to ten other deer of all ages. I imagine he means that there is only one big stag for every ten hinds,

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