

THE FALLOW DEER

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FALLOW DEER

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Forestry Commission

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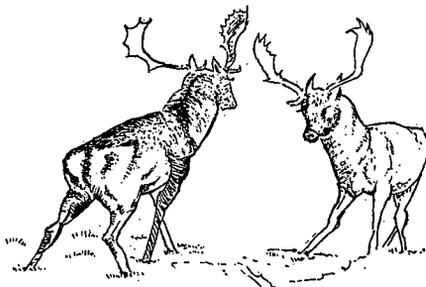
I. INTRODUCTION

Although a fossil of a fallow deer (buck) was found at Clacton in 1868, it is generally accepted that fallow deer are not indigenous to the British Isles. Their original indigenous habitat is Asia Minor, Macedonia and the shores of the Mediterranean. They are now established in the Baltic States and throughout Western Europe as far east as the Ukraine.

They were probably introduced to Britain by the Romans. They have also been introduced to North West Africa, North Palestine, Australia, New Zealand and Tasmania. Because fallow deer thrive in captivity, they have always been the principal species for deer parks, their venison being of high quality.

Fallow deer were very numerous in the times of the Normans, and were highly regarded as beasts of the chase. The wild stock in Britain has been augmented from time to time by escapes from parks. For instance, many parks were destroyed by Oliver Cromwell and escapes resulted. In this century, the necessity for food production during two world wars caused many parks to be turned over to farming. A decline in the management of certain estates led to park walls and fences falling into disrepair. Many deer escaped, some to bring fresh blood to existing colonies, and others to found new feral herds.

The vast areas of new plantations formed by the Forestry Commission, and by private landowners, to make good the severe felling losses of two wars, have provided many new habitats for fallow deer (and for other species of deer). At the present time fallow deer are



increasing in numbers and spreading into new areas.

II. DISTRIBUTION

Throughout Britain there is a widespread distribution of feral fallow deer, although in some areas they are at present sparse.

In England there is only one county, London, where they are not found. In twenty counties they occur in fair numbers.

Fallow deer are scarce in Wales, not being recorded at all in six counties.

In Scotland they are present in 14 counties and not recorded in 14. They occur in three of the Scottish Islands.

In Northern Ireland only one county, Londonderry, does not record fallow deer, and in Eire there are only four counties without.

The schedule overleaf, with one or two minor alterations, is taken from the *Field Guide to British Deer*, originally published by the Mammal Society of the British Isles (now under revision by the Deer Society.)

III. DESCRIPTION

Colour — Voice — Weight

The most distinctive feature of fallow deer is the tail, which is 9 inches long (longer than that of any other British deer), and black on the top side, giving a very distinctive pattern, and white underneath. (See Figure 2.)

In summer the tail is flicked constantly, and frequently gives the stalker the first glimpse of the deer. (Often it gives him the last and only view, too!)

Occasionally the tail is carried, squirrel-like, curled upwards, when it shows the white underside. This is usually during the first moments of alarm, when the deer will bounce three or four times on stiff legs, the object being to give warning to other deer.

The tail of a fawn is also curled upwards when suckling.

In size, a fallow deer is smaller than a red, but slightly larger and "leggier" than a sika. Roe are much smaller.

Distribution of Wild Fallow Deer in Britain by Counties
 Figures after each county show number of Deer Parks

	<i>None</i>	<i>Occasional</i>	<i>Few</i>	<i>Fair Numbers</i>	<i>Well Distributed</i>
ENGLAND	London 3 Isle of Wight -	Cheshire 3 Cumberland 3 Derby 4 Durham 3 Hunts. -	Beds. 2 Cambs. - Cornwall 5 Herts. - Lancs. 3 Leics. 2 Lincs. 5 Norfolk 3 Northumber- land - Rutland - Somerset 3 Warwick. 2 Westmorland 3 Yorks. 4	Berks. 2 Bucks. - Kent 6 Notts. 3 Staffs. 1 Surrey 3 Sussex 4 Worcs. 2	Devon 5 Dorset 4 Essex 2 Hants. 3 Glos. 6 Hereford 6 Northants. 5 Oxford. 5 Salop. 5 Suffolk 4 Wilts. 6
ISLE OF MAN	All				
WALES	All the other six counties	Anglesey 1 Carmarthen 2 Flint -	Denbigh - Glamorgan 2 Mont. 1	Monmouth. -	
SCOTLAND	West Lothian 1 and 13 other counties	Angus 1 Kirkcudbright 1 Lanark - Roxburgh -	Argyll - Banff - Caithness - Inverness - Ross and Cromarty - Sutherland - Wigtown -	Dunbarton - Dumfries 8 Perth -	
SCOTTISH ISLANDS	All other Islands		Islay - Mull - Scarba -		
NORTHERN IRELAND	Co. Londonderry -		Co. Antrim - Co. Down - Co. Fermanagh - Co. Tyrone -		
EIRE	Co. Donegal - Co. Kilkenny - Co. Longford - Co. Wexford -		All counties except those shown in first column		

Colour. There are four main colour varieties—Common, Black, White and Menil. Millais, in 1897, considered that the New Forest type was the true wild form from which all others had originated. The common fallow has a wide range of tones, and now a case can be made for separating the New Forest type as a fifth variety.

The summer and winter coats of each variety also differ within regular patterns, following successive moults.

The *Common fallow* deer in summer may be various shades of chestnut with prominent creamy-white spots. In winter the coat loses its spots and becomes darker, although the spots are still discernible on close examination.

A long-haired variety, so far only seen in bucks, is found in Mortimer Forest, Shropshire. The *New Forest* variation is a true “fallow” colour in summer, with creamy-white spots. In winter it becomes darker still than the common fallow. It is then without spots, and is known as a mulberry colour; *in fact it is a very dark brown. The underparts are white, not buff.*

The *Black fallow* are said to have been imported from Scandinavia. They are a sooty black all over with faintly visible darker spots in summer. In winter their coat is a softer, greyer tone of black. The rump and whole tail are black, which distinguishes them at once from the only other black deer, the sika stag, which has a white rump. In some fallow areas black is the dominant colour. There is one herd of black fallow deer with pink bellies. Sometimes black fallow have a reddish tip to the tail.

The *White fallow*. As a fawn it is normally coffee or sandy coloured. The coat becomes creamy-white during the next summer. But some white herds do throw white fawns. White fallow are very rarely snow-white, and their eyes are a normal colour (true albinos are recorded, but rare). Creamy fallow sometimes show faint white spots in summer. During the rut a white fallow buck becomes excessively dirty through rolling. It is often said that white fallow are decadent, or that they result from inbreeding. In the New Forest there is no sign of this, and some of the best bucks are white.

Where mixed herds occur in the New Forest, a white doe usually has a normal fawn. Only two cases of a white doe bearing a white fawn have been recorded, and it is assumed that this has come about by a white buck covering a white doe. (The chances of a white buck being near a white doe during the rut are rare). White (i.e. sandy coloured) fawns are usually born to normally coloured does, presumably covered by a white buck.

White fallow have all-white tails.

Menil fallow retain their spots during the period of the winter coat, which is generally paler than the normal type. They are common in certain parks. True menil have a Y-shaped convergence of spots on the haunches.

The summer coat starts to shed early in October, and the winter coat at the end of April.

Only sika hinds are likely to be confused with fallow does, but the sika hind has shorter ears and a grey V down her face. Her tail is shorter and not very much in evidence, and the caudal disc is larger. (See Figure 2.)

Voice. Does and fawns make a low wickering note when talking to each other. The same note is also made by does on the rutting stand.

The cry of terror which is made by a fawn when handled, or, much more rarely, by a doe when savaged by a dog, is a bleating scream. Young bucks and prickets may also make a similar sound. However, injured deer usually suffer in silence.

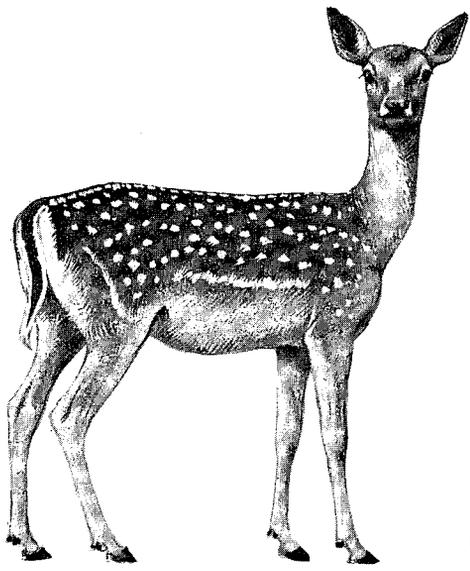
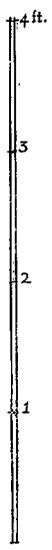
As a warning of danger, a doe will utter a short, deep bark. More often this call denotes suspicion and curiosity. When fully alarmed they run off silently. A buck will sometimes use the same alarm note: again, it denotes surprise and suspicion, rather than fear.

During the rut, or mating season, the rutting call of fallow bucks is known as groaning. This is a grunting, sometimes belching sound which is described in greater detail in Ch. 9, The Rut. This call is not used outside the rut.

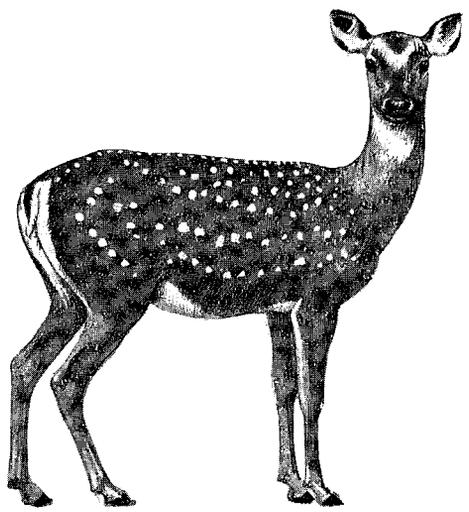
On the whole, fallow deer are rather silent.

Weights

The average weights vary with the locality, the



FALLOW DOE



SIKA HIND

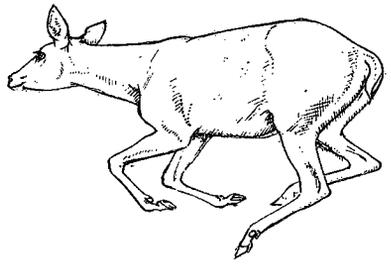
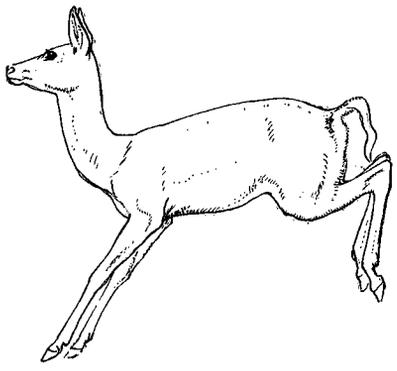
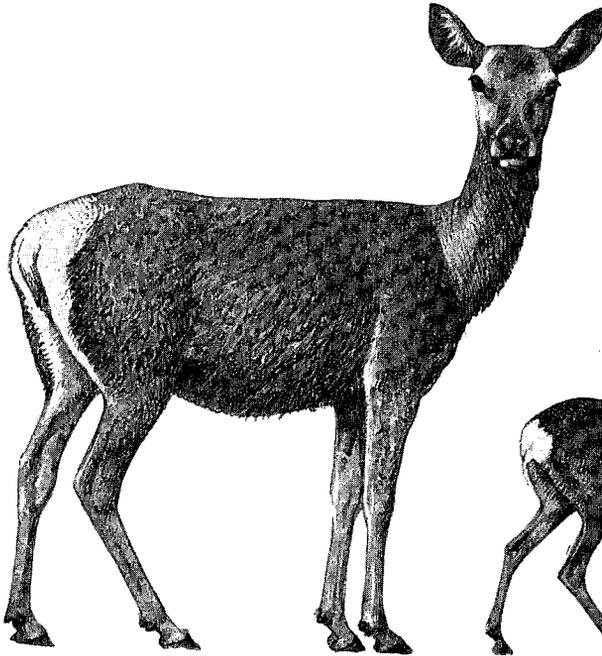
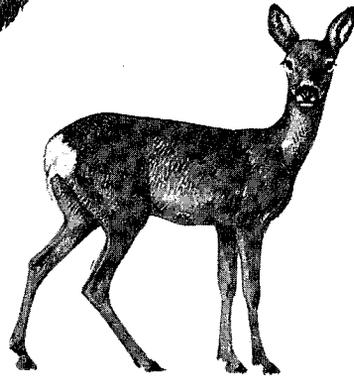


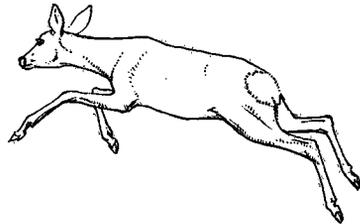
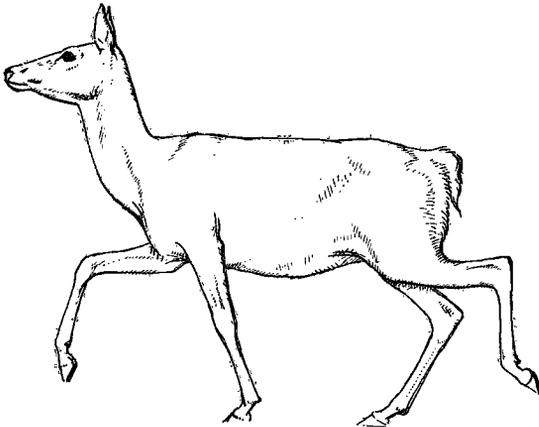
Figure 2. Recognition of female deer by appearance and gait; all are in summer coat. Note differences in spotting of coat, tail, and height (scale on left).



RED HIND



ROE DOE



time of year and the local food supply. The following weights may be taken as a fair indication:—

	<i>Gralloched</i>	<i>Dressed Carcase</i>
Great Buck (Aug./Sept.)	170/200 lbs	130/140 lbs
Average Buck (5 year old)	140/150 lbs	90/100 lbs
Doe	70/80 lbs	50/60 lbs
Fawn	45/50 lbs	33/38 lbs

In heavy mast years, that is years when there is a good crop of acorns or beech mast, weights may be up by 10 lbs.

Gralloched—Entrails removed. (Head, skin, heart and liver intact.)

IV. SPOOR TRACKS, SLOTS AND FEWMETS

Before studying tracks it is necessary to understand the natural movements of deer. When feeding, fallow deer will move about at a quiet

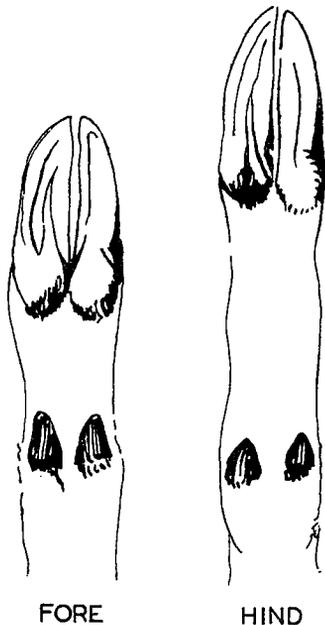


Figure 3. Fore and hind feet of Fallow deer; note dew claws.

walk. When moving unalarmed, they will walk at a steady pace, with a number of halts to look and listen. Sometimes, after a halt, they will move off at a fast trot.

When danger is spotted, they will bound on rigid legs three, four or five times. The resultant drumming of their feet on the ground acts as an instant warning to other deer. After bounding, they may pause for a moment—then they run off very fast. At this pace the cleaves are widely separated, and the slots very distinct (see Figs. 3-6). Fallow deer prefer to pass through a gap in a fence or underneath the bottom wire, rather than jump. But of course they will jump quite high obstacles, often from a standing

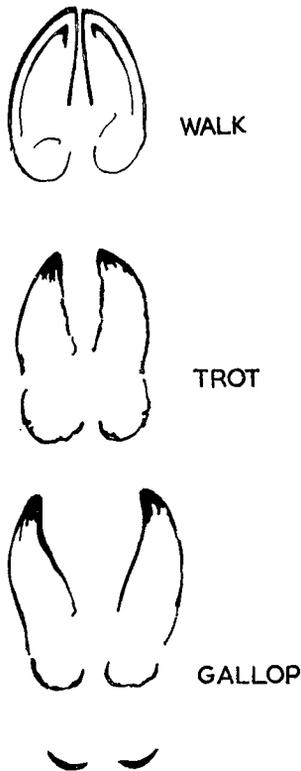


Figure 4. Spoor of Fallow deer, showing three different gaits: walk, trot, and gallop; the dew claws leave an imprint during the gallop.

position, when all four feet are gathered together for the take-off.

By contrast with fallow, the natural gait of red deer is a characteristic loping trot with a fairly long stride. Roe deer, when alarmed, go off bounding for some distance.

The foil of fallow deer, i.e., the trail left in the dew, or the depressed marks left on grass or other vegetation by the passing of deer, is rather more marked than the foil of roe deer, but not so obvious as the foil of red: although a large fallow buck may leave foil nearly as noticeable as that of a red hind.

The track or slots, made by the cleaves of fallow deer, are very much smaller than those of red deer and much larger than those of roe. They are approximately the same size as those of sika deer, but fallow are more pointed and pear-shaped, sika being rather more similar to the slots of sheep. Bucks, and all male deer, leave slots which point outwards: the slots of female deer point forwards. The average step of a fallow buck is $1\frac{3}{4}$ ft. compared with 2 ft. for a red stag, $1\frac{1}{2}$ ft. for a sika stag, and $1\frac{1}{4}$ ft. for a roe buck.

Droppings or fewmets are usually found in small clusters of separate droppings, though they may be adherent. They are rounded at

one end and pointed at the other, buck droppings being concave at the base. The fewmets are found on the feeding grounds and at various stages between the feeding and day-time resting places. When deer first rise from their day-time lying positions, or lairs, it is not long before they leave their fewmets. (See Figure 7.)

V. ANTLER DEVELOPMENT

The male fallow deer, known as a *buck*, has antlers which carry *brow* and *trez tines*, but no *bez* tine. When adult, they are broadly palmated with serrations (*spellers*) on the outer edge. The *palm*s may be deeply fissured in poor quality heads, nevertheless there is no other British deer which carries antlers at all similar to an adult fallow buck's.

A buck fawn commences to grow bumps from which pedicles develop at about Christmas time, and during the early spring following its birth. From these pedicles, two spikes develop, protected by *velvet*, during May and June in early fawns, and later in poor or late fawns. The fawn is now known as a *pricket*. The velvet is cleaned during late August and September. Even spikes, of the length of the ears, or longer, indicate a good pricket;

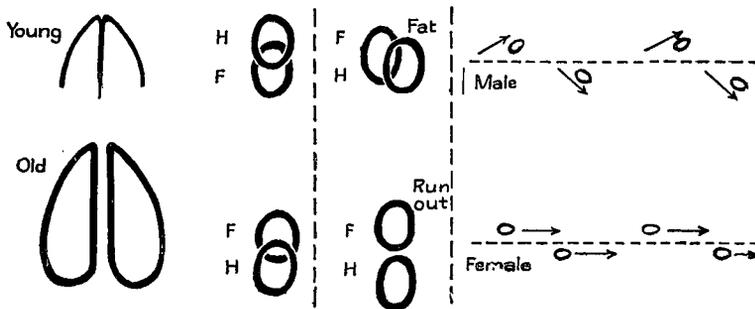


Figure 5. Recognition of age and sex of deer by their spoor.

Left. In the spoor of a young deer, only the front parts of the cleaves make an imprint; the hind feet register ahead of the fore feet. In the spoor of an old deer the whole of each cleave makes its mark, and the fore feet register ahead of the hind feet.

Centre. A fat deer has its fore and hind feet out of line; a run-out buck does not bring its hind feet up to its fore feet.

Right. A male deer points his cleaves outwards; a female deer points her cleaves straight ahead.

uneven spikes, or growth much less than the length of the ears, are carried by inferior animals.

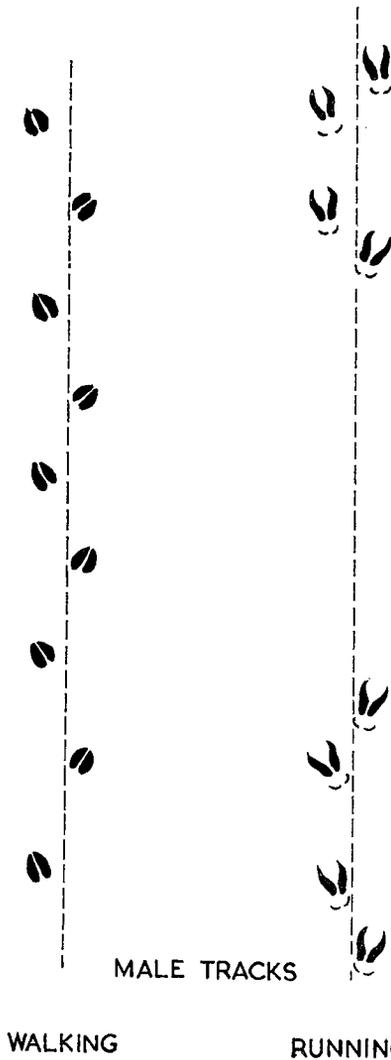


Figure 6. When walking, the imprints are evenly spaced and the cleaves are close together. When in flight, the imprints fall in groups of four; the cleaves are open, and the dew claws leave their mark.

A two-year-old male fallow deer (i.e. rising three years) is known as a *sorel*. It develops brow and trez tines, but the top varies from a round point, or forked round points, to a slightly flattened top; this last type indicates a good beast which will develop good palmation in later years.

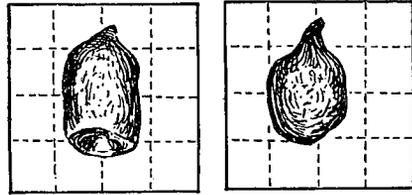


Figure 7. Fawnets of Fallow buck, left, and Fallow doe, right.

A third-year male fallow (rising four years old) is known as a *sore*. A poor sore may resemble a good sore. But an average or good sore should show a marked flattening and increase in width of the top. It should also show well-developed brow tines.

Four-year-old (rising five) fallow deer are known as *bare bucks*. Palmation is showing at this stage, but it is still relatively narrow. Six and seven-year-old male fallow deer are known simply as *bucks*. They become adult at eight years. Provided that antler development is reasonably good, the palm should then be about five inches or more in width, and the beast then qualifies for the term *great buck*.

When food is good, he may improve a little for the next few years, but he will start to 'go back' from the twelfth to fourteenth years. The thickness of the beam becomes greater, but the antler length and width deteriorate, and the spellers often become rounded. Eventually, with great age, the brow tines and even the beam may deteriorate, too.

Deformities to the antlers may be caused by disease (lungworm and liverfluke particularly) and by an injury to the body of the deer. For instance, a leg or a testicle injury will cause deformity to the antler on the opposite side of the body. A castrated buck may grow no



Figure 8. A run made by deer continually creeping below a fence at the same spot; New Forest.

ANTLER DEVELOPMENT

(1) GOOD 'HEADS' FOR THEIR AGE

New Forest standard



PRICKET
Yearling



SOREL
2yr old



SORE
3yr old

(2) POOR 'HEADS'



Yearling



2yr old



3yr old

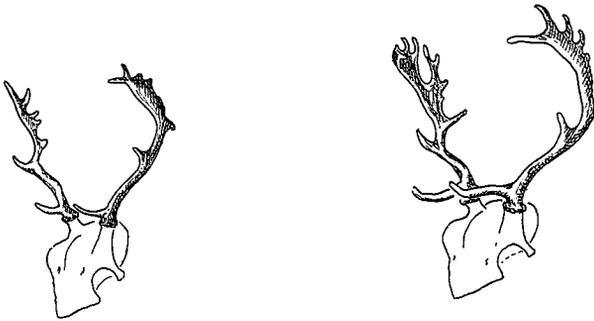
Figure 9. Antler development over the years; good heads *above*, poor heads *below*. For further details of ages, etc., see page 10.



BARE BUCK
4yr old

BUCK

GREAT BUCK



4 or 5yr old

antlers; but if this injury takes place in later life, antler development is arrested and the antlers may not be cast again. A *hummel* is a male deer which does not grow antlers, but which is nevertheless sexually complete and capable of breeding. Hummels are very rare in fallow deer, but occur more commonly in red deer.

Antler shape and formation are inherited, hence the need to cull (or thin out) bucks with inferior-shaped heads. Heavy antler growth is also closely associated with good feeding.

VI. HABITAT AND BEHAVIOUR

Fallow deer are less regular in their habits than are roe deer. The behaviour of any particular group of fallow deer may vary on account of the food supply, the type of cover which is available and the degree of disturbance, particularly persecution.

Basically the fallow deer is a woodland species, preferring hardwood areas to high elevation conifer forest. The ideal habitat will have plantations in the thicket stage for daytime cover, open woodland areas of hardwoods, or mixed conifers and hardwoods, with a ground layer of herbaceous and shrubby species, particularly brambles, all within reasonable reach of pasture land.

It follows that the least favourable woodland habitat is a high elevation pure conifer forest, which only adjoins rough moorland.

But fallow deer are very adaptable animals and they are liable to turn up in any form of woodland, and also on waste lands which are not afforested.

Feeding habits vary with the locality and the amount of disturbance. Where disturbance is a major factor, fallow deer come out to feed during the evening and at night. They are especially active on moonlit nights. They also feed at dawn, and at first light they start moving towards their day day resting place. In areas where disturbance is slight they may be found feeding between 9 a.m. and 11 a.m. and in the late afternoon.

Old deer, and deer marauding fields and

pastures, especially where shooting is frequent, come out later at night and return earlier in the morning.

A large proportion of the stock of an area will be found lying down an hour or so after full daylight. Where disturbance is severe, they will choose dense warm thickets. But where disturbance is not a serious factor, they may be found under quite open conditions, sometimes lying on the leaves of a bare forest floor. In such cases they lie with their backs to the wind, facing downwind. They will often lie up in furze or gorse bushes outside the woodland area, especially during February and March. Where neither shooting nor disturbance is severe, deer may be found during the daytime moving about and browsing in semi-open forest conditions.

They cling to their runs or racks and use precisely the same runs for many generations of deer. When a mixed herd is travelling, the old does lead, followed by the young and small deer, with the big bucks at the rear.

Fallow deer have all three senses highly developed. But the least keen is eyesight. They are quick to spot movement and fairly quick to spot the human form, when upright. But a man who remains still, particularly when against a dark background, and if wearing a facemask, will often be overlooked. A man on a high seat, if he remains still, is very rarely noticed, even at close range. In the half light, or fog, deer see better than a man.

The hearing of deer is acute, but they will often accept normal forest noises—the rustle of leaves or even a broken twig. But heavy, regular human footsteps are recognised. A metallic noise—field glasses against rifle, or even a loud safety catch—will alert them at once. Deer very often take but little notice of men strolling along and talking naturally.

Most efficient of all is their power of scent. One may risk a slight movement or make a small noise and get away with it: but one cannot make the smallest error with the wind. In the case of both sound and scent, deer seem to have the ability to pinpoint the exact position of danger.



Figure 10. Successive stages in the development of a Fallow buck's antlers, from April to July in a single season; from casting of old antlers, through "velvet" and the shedding of velvet, to "hard horn". After J. G. Millais.

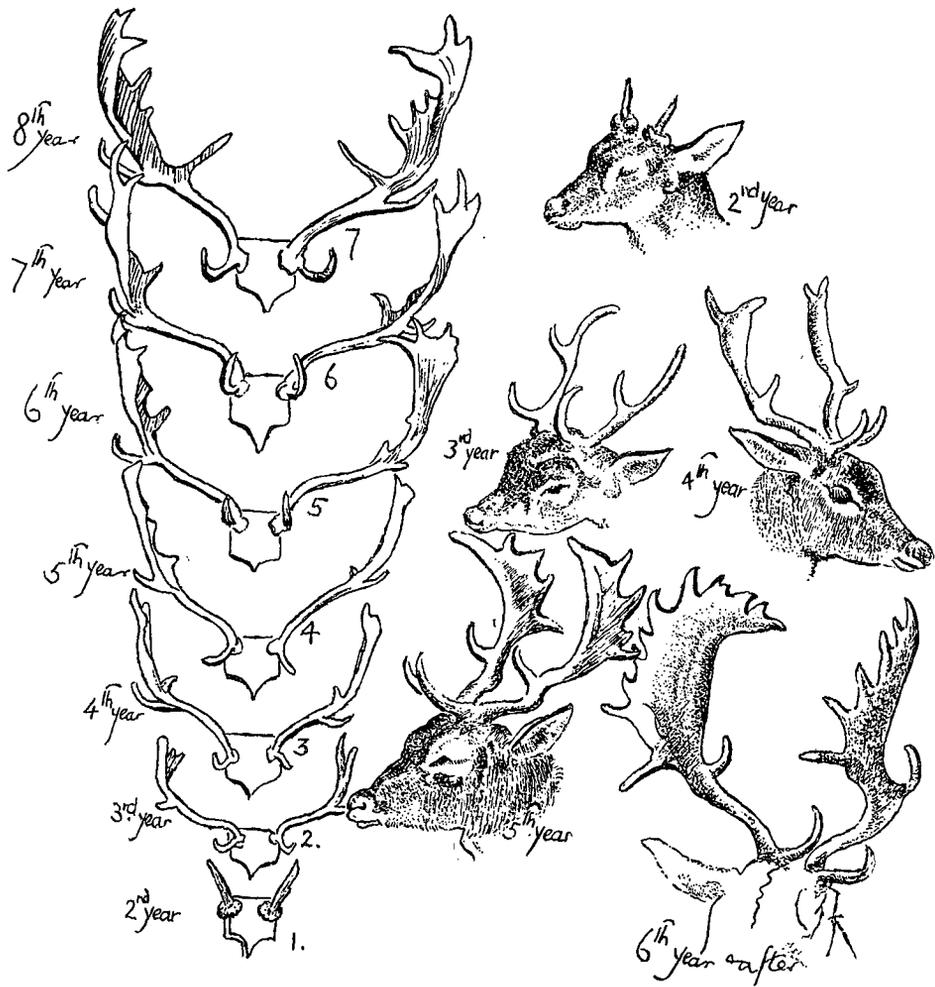


Figure 11. Antler development in the same buck, over eight successive seasons. After J. G. Millais.

VII. FOOD

The food of fallow deer covers a great variety of grasses, herbs, shrubs and fruits, grass being the main food. In fact it is certain that there is a relationship between the general health of a stock of deer and the variety of food available, as well as the bulk. Fallow deer will eat a very wide variety of food: for instance in the autumn many types of fungi are eaten.

Amongst the grasses, *Molinia*, *Deschampsia* and *Holcus* species are not eaten readily. In the case of the sedges, it is the seed which is taken; rushes are eaten when food is scarce.

Of the very many herbaceous species, fox-glove (*Digitalis*), sage (*Teucrium*), Evening primrose (*Oenothera*), ragwort (*Senecio*) and nettle (*Urtica*) are not sought after. The leaves of most bulbs are not eaten, daffodils being immune. Bracken (*Pteridium*) fronds are sometimes eaten in July, and tips of the male fern (*Dryopteris felix-mas*) are eaten with relish.

Most shrubs are eaten, although it is possible that dogwood (*Cornus*) is not. Ivy (*Hedera*) is a favourite winter food, and both holly (*Ilex*) and green yew (*Taxus*) are eaten although there are records of yew proving poisonous to deer. Young gorse (*Ulex*) shoots are taken in summer, and old gorse in hard weather. Heather (*Calluna*) and bilberry (*Vaccinium*) are eaten freely. Without doubt the favourite food shrubs are brambles (*Rubus*) and roses (*Rosa*). Both are amongst the most important items of food for fallow deer (and for roe deer). Privet (*Ligustrum*) is also readily eaten. When fallow deer break into gardens, as they do in the spring, it is the roses and runner beans which they seek out, and also, inevitably, any especially prized shrub!

Amongst broadleaved forest trees, sweet chestnut (*Castanea*), red oak (*Quercus borealis*) and wych elm (*Ulmus*) are preferred to all else, but oak (*Quercus*), beech (*Fagus*) and poplars (*Populus*) are readily eaten. The birches (*Betula*) are not often taken unless no other broad-leaved species is present. All young conifers may be eaten, especially when they are growing amongst grass, which attracts the deer to the area, or when food is scarce. Unusual species

planted in small numbers always seem to attract attention. There is some indication that in some areas Western red cedar (*Thuja plicata*) and Lawson cypress (*Chamaecyparis lawsoniana*) are not so readily eaten: but that does not mean that they are immune. Where the feed is poor, then the pines (*Pinus*) are more readily eaten than where grazing is best.

Most natural fruits are eaten in due turn—bilberries, blackberries, mountain ash (*Sorbus aucuparia*) berries and crab apples (*Malus sylvestris*) all being much sought. But the most important fruits are chestnuts, beech mast and acorns. Quick recovery of condition after the rut (bucks) and ability to withstand prolonged hard weather are in no small measure dependent upon the crop of acorns in October. The worst conditions are brought about by a hard winter following a failure of acorns in the autumn. Then if a late spring with drought conditions retards the spring growth of grass, starvation level may be reached. Deer sometimes suffer ill effects through eating too many green acorns, but this is rare.

During snow, fallow deer tend to herd up in areas of holly or, where this is absent, in briar patches and heather areas. They are adept at pawing through the snow to reach grass, or acorns, which they find by scent. When a herd of deer is feeding in this manner, it quickly attracts a host of other forest creatures which take advantage of the small crumbs of food brought to light. Blackbirds, thrushes, jays, woodpigeons, pheasants, squirrels and even sometimes rabbits and hares, all benefit.

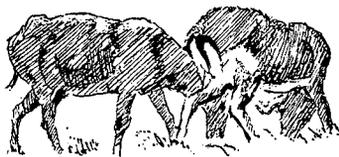
Fallow deer sometimes eat the bark of trees. This is called "stripping". Yew, Lawson cypress, Western red cedar, Norway spruce and many other conifers have their bark nibbled. Also stripped are holly and many hardwoods when smooth-barked, particularly ash. There are two main periods for stripping—the end of July and during hard weather in winter. It is done by the incisors of the lower jaw with an upward stroke of the head.

Within a forest the grazing of rides by deer is beneficial; but on farm lands deer will graze all types of pastures, particularly reseeded fields, and this leads to complaints. They are

keen on the "early bite" in spring and may cause serious damage. They also damage fields set aside for hay crops. They will eat young wheat and corn and may appear to do much damage. But usually a good crop results. However, when the grain is ripening, fallow deer will wander through it casually, plucking a head here and there, grazing the herbage in the bottom and trampling a wide area. At this time they may lie up in corn fields. They will eat root crops of turnips, swedes and mangolds, sugar beet and potatoes, but they prefer swedes.

Often a buck will wander through a root field, as it might be with his hands in his pockets, every now and then plucking a turnip and throwing it disdainfully over his shoulder.

Fallow deer are very rarely seen to drink. A tame male fallow was found to drink not more than $\frac{1}{2}$ pint a week.



VIII. SEASONAL ACTIVITY

The dates of all seasonal activities vary with different localities. Generally speaking they are earlier where feeding conditions are best, and also earlier in the South than in the North.

Fallow fawns are born from the end of May, the majority being born during the second week of June. Twins are very rare. Occasional late fawns may be born right through July to August, but these late fawns rarely thrive, and should be culled.

Prior to the birth of the fawns, the does are very secretive and lurk in fairly dense cover. For a day or two after the birth the doe will be seen by herself, often some little distance from the fawn. It is important to realise that a doe seen on its own at this time of year is not necessarily a barren doe. Nor is a fawn, lying by itself, deserted or lost.

Soon after the fawns are strong enough to

follow the doe, it is common to find two, or sometimes three does together with their fawns. This is the beginning of herd activity, although at this time of year there are still many does who live a solitary existence with their own fawn. If the doe suspects danger, she will give a faint 'wicker'. At once the fawn will lie down and the doe will then move off.

From the point of view of deer control, it is important to know for how long a period the fawn is dependent upon the doe. A fawn may survive if the mother is killed at the end of September or early October, but it will suffer hardship and even if it survives, it is unlikely to make a well-grown yearling. Even November is quite early enough for a fawn to be orphaned.

Normally the fawn runs with the doe until March, and during the winter months the does and fawns form quite large herds, often accompanied by a pricket or two and sometimes by a small buck. But the bucks run in separate herds at this time and tend to use different areas. Male fawns start to develop the pedicles in January, and the growth of the first head, or spike as it becomes, commences soon after.

During March those deer which are again heavy in fawn—and that is the majority of them—often wean the current fawn, and one gets little "nursery" parties of fawns herding together. For a while they seem to be bewildered and behave unwisely. In May, a doe with a grown fawn still at heel is often barren, although there are cases of a doe being accompanied both by her current fawn and the previous year's fawn.

It is during March and April that deer tend to wander far afield in search of the new spring growth of vegetation. They break into gardens and they feed heavily on fields.

At the end of April and during the first week of May the bucks cast their antlers, the oldest bucks casting earlier than younger animals. Prickets may carry their spikes into June. Both antlers are cast within a day or two of each other. The process is painful and the pedicles are raw and sometimes bleed. Immediately after casting, the buck is most

CALENDAR OF FALLOW DEER

Month	Bucks				Bucks and Does			Does		Month
	Legal Open Season	In 'Hard Horn'	Fraying Activity	Play Rings	Rut	In Herds	Change Coat	Legal Open Season	Fawns Born	
Jan.	Some seasonal activity	Some seasonal activity	Some seasonal activity	Some seasonal activity		Some seasonal activity	WINTER COAT	Some seasonal activity		Jan.
Feb.	Some seasonal activity	Some seasonal activity	Some seasonal activity	Some seasonal activity		Some seasonal activity	WINTER COAT	Some seasonal activity		Feb.
March	Some seasonal activity	Some seasonal activity	Some seasonal activity	Some seasonal activity		Some seasonal activity		Some seasonal activity		March
April	Some seasonal activity	Some seasonal activity	Some seasonal activity	Some seasonal activity		Some seasonal activity		Some seasonal activity		April
May	NO SHOOTING	CASTS				Herds break up		Some seasonal activity	DOES GRAVID	May
June	NO SHOOTING	ANTLERS GROWING						Some seasonal activity		June
July	NO SHOOTING	ANTLERS GROWING					SUMMER COAT	Some seasonal activity		July
Aug.	NO SHOOTING	CLEANS ANTLERS	Some seasonal activity	Some seasonal activity		Herds re-commence	SUMMER COAT	Some seasonal activity		Aug.
Sept.	Some seasonal activity	Some seasonal activity	Some seasonal activity	Some seasonal activity		Some seasonal activity		Some seasonal activity		Sept.
Oct.	Some seasonal activity	Some seasonal activity	Some seasonal activity	Some seasonal activity		Some seasonal activity		Some seasonal activity		Oct.
Nov.	Some seasonal activity	Some seasonal activity	Some seasonal activity	Some seasonal activity		Some seasonal activity		Some seasonal activity		Nov.
Dec.	Some seasonal activity	Some seasonal activity	Some seasonal activity	Some seasonal activity		Some seasonal activity		Some seasonal activity		Dec.

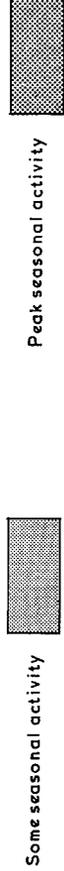
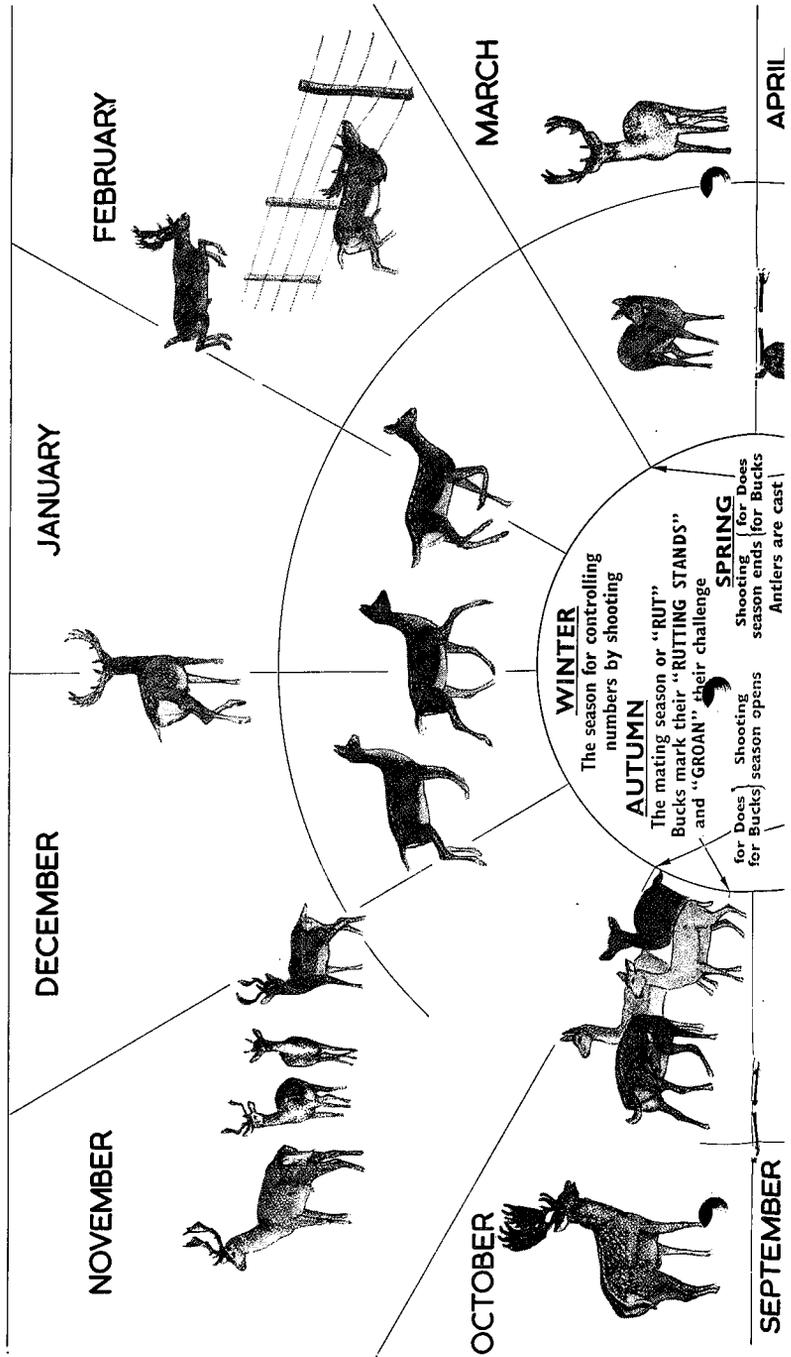


Figure 12. Calendar of Fallow deer, showing seasonal activities for both sexes, and close seasons for shooting.



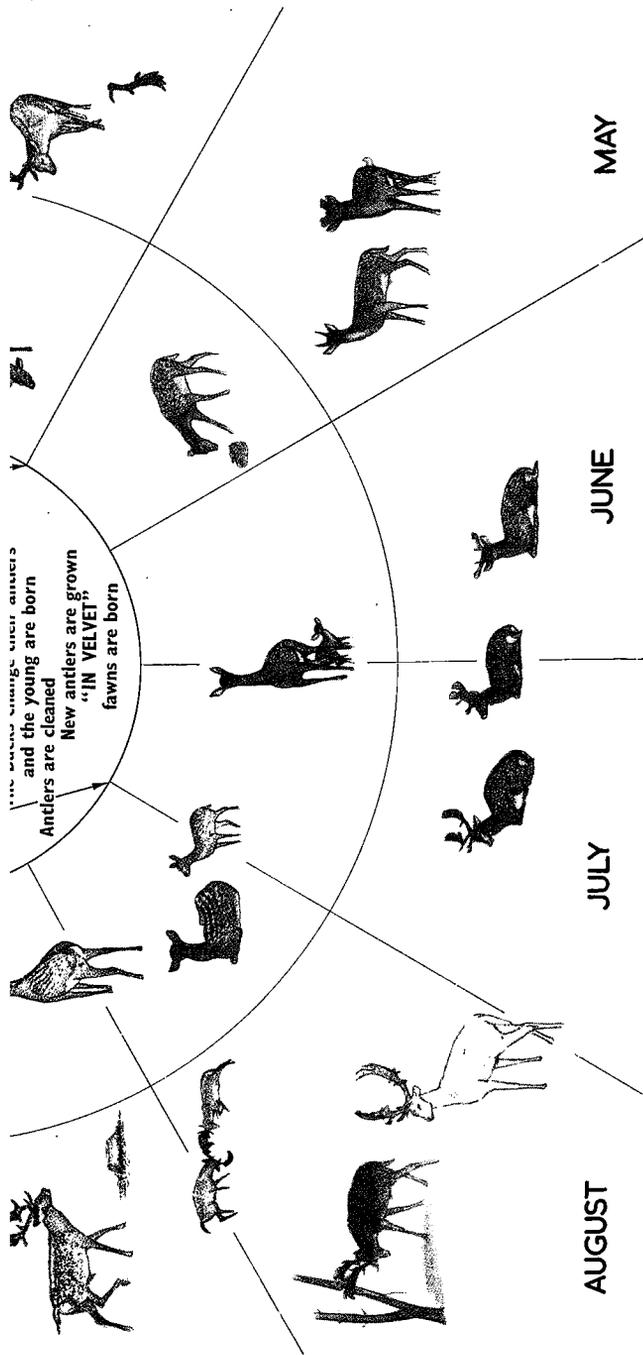


Figure 13. The annual cycle of life for Fallow does (inner ring of diagram) and Fallow bucks (outer ring). Note seasonal colour changes of coat.

uncomfortable and may be bullied by other bucks in the area, as is a sick animal. The new growth commences at once. In fact, as with a child's second teeth, growth has already started before the antler is cast. Cast antlers are quickly gnawed by deer, who use the corner incisor teeth to rasp them. The calcium content is the attraction. Rodents also gnaw antlers.

By this time the change into summer coat has commenced. The winter coat starts to lose condition early in February, when the bucks spend a good deal of time rubbing. The hair on their necks often becomes fairly bare through rubbing. However, from then until the end of April the change is scarcely perceptible in the field. But during May the summer coat appears with surprising speed. In the space of a fortnight the great majority of the deer of an area will have assumed their summer *pelage* or coat, although in a late season odd deer may not change completely until June.

Once a buck casts his antlers he suffers a psychological change. There is no doubt that a buck in his prime is proud of his 'adornment' of antlers. His whole demeanour makes this plain. But as soon as he has cast, he becomes furtive and secretive. For the next three months he goes into seclusion and he takes the greatest care to avoid knocking his new, growing antlers. He will pass through dense forest with his head thrown back so that the growing antlers lie towards his shoulders, and he is adept at weaving through small spaces.

By early August antler growth is nearing completion. The previous year's buck fawns, now known as prickets, and the older bucks, begin to clean their velvet towards the third or fourth weeks of August. They have an urge to rub their antlers, as if the velvet itches. But the habit of protecting their antlers, which has been of prime importance for four months, is still an instinctive part of their nature. It is at this period that the keepers of the New Forest watch the thistles. For a fallow buck will nearly always test the sensitivity of his new antlers on a thistle. Very gently he will rub all the side shoots of the thistle, often without breaking the main stem. It is only after this test that he is ready to start cleaning the velvet

in earnest. Damage to saplings and young trees ("fraying" or "burnishing") will be found within a day or so of the thistles being rubbed. Isolated small trees and those growing on the sides of rides and glades are preferred, if only because they catch the attention of a buck more readily. For a few days a buck's antlers may be ragged, with strips of velvet hanging in shreds. But the cleaning process is completed speedily, and a sorel may clean in one morning.

Thereafter bucks are much in evidence and they associate together in small male herds.

By mid-September bucks are starting to wander about seeking territories for the rut, and they do considerable fraying of saplings and young trees. At this time there is much movement of male deer. Groaning may commence before September is out. The winter change of coat, and the rut, follow in mid-October. (The rut is the subject of a separate chapter.) After the rut the bucks are emaciated and in very poor condition. They are not very much in evidence for several weeks, and thereafter they form male herds, except for very old bucks which remain solitary: or sometimes may be accompanied by a pricket or young bare buck.

During February and March the male fallow deer, which are still in male herds, often spend some time on their "play rings" especially during warm and sunny afternoons. A play ring is usually made around some prominent feature such as a stump, or a rock, or isolated tree, around which the deer gather and chase each other, often anti-clockwise, sometimes kicking their heels in the air, and sometimes standing on their hind legs and boxing each other. The ground around these play rings is trampled bare of vegetation. The significance of this activity is not clearly understood, and more observations are re-



quired. But the simple explanation is that it is just play. (Sika deer have a similar seasonal activity.) At this time of year quite a lot of playful sparring takes place, and there is also a revival of fraying activity. Play rings are also sometimes used in late August and September. Does and fawns also visit play rings.

IX. THE RUT

The rut of the fallow deer is quite different from that of other British deer in several important points. For instance, it is the does which come to the buck, and the fallow buck makes no attempt to round up and hold a harem of does as a red stag will do with his hinds.

The rut takes place on rutting stands which are traditional in that they may have been used

since time immemorial. Bucks very rarely rut on their "home" ground, and some bucks, which are not known locally, always turn up for the rut.

The general picture is as follows:

In September the bucks become restless and roam away from their normal haunts. But they are more nocturnal just before the rut and they are difficult to find at this time. The older bucks, some of which are but rarely seen outside the rut, begin to mark out their territory. This they do by thrashing young trees and bushes situated roughly around the perimeter of the rutting stand which they intend to occupy. The area at this time may be several acres in extent. The same buck may occupy the same rutting stand year after year, but it is not always so.



Figure 14. A Fallow deer play ring in the New Forest.

It is also the case that certain rutting stands have a greater status than others. Quite a number of different bucks will visit the oldest traditional rutting stands from time to time during the rut, year after year, whereas other rutting stands are not again occupied if the master buck is shot. These latter are probably "fringe" rutting stands.

When the buck thrashes bushes around his stand, a secretion exudes from scent glands situated below the eye. The buck will rub the opening of the gland against the stem and branches of the tree he has thrashed, thus leaving his scent thereon. But he will also anoint many more trees than he thrashes.

By the end of September the necks of the bucks become greatly thickened and enlarged, and the Adam's apple becomes more pronounced. The first groaning may be heard, although it is usually well into October before the majority of bucks start to groan. "Groaning" is the name given to the sound made by a fallow buck during the rut only. This rutting call is a throaty grunting, sometimes almost a belching sound, given continuously for varying periods. While the buck is groaning his head is held pointing slightly downwards and it is jerked upwards as the sound is emitted through his open mouth. The tone of this rutting call varies with the age of the buck, old bucks giving the deepest notes. A young buck's voice is very much higher pitched and in the distance is almost reminiscent of the purring of a turtle dove. On a still day groaning may be heard over half a mile away.

A roaming buck seeking a new area may groan from time to time as he travels. But normally when a buck starts groaning it is a sign that he has taken up his rutting stand. He will now make scrapes, using his forefeet, which also contain scent glands, and his antlers, and he will then urinate on to the scrapes. He will plaster his sides and flank with soil from the scrapes. In any case, by this time a buck is possessed of a very pungent odour!

The object of all this activity (rubbing his scent glands on to bushes, urinating on to his scrapes and groaning) is to advertise his presence on the rutting stand so as to attract

the does to him and, at the same time, to warn other bucks of his presence.

By mid-October, and often earlier, the master bucks will have taken up their final stands, which are confined to an area roughly 60 or 70 yards long by 40 yards wide, and at the height of the rut even smaller. Up and down this area the buck will parade, groaning almost continuously for many hours on end. Around him will be a varying number of does, sometimes accompanied by the odd pricket and a fawn or two. There is an atmosphere of intense excitement, and the does often gambol and run hither and thither, sometimes making a wickering noise. In the background there may be one or two lesser bucks, but they dare not enter the main arena. However, occasionally another great buck, possibly one which has been disturbed from his own rutting stand, may enter the rutting area. This sometimes results in an immediate clash. More often the newcomer walks slowly through the area, followed, almost indifferently, by the master buck who edges up until he brushes the hind quarters of the newcomer with his own shoulder. That action at once triggers off a fight. The newcomer wheels around and their antlers lock with a resounding crash. A fight between two large bucks is a magnificent sight, and the strength of their neck muscles and hind quarters is immense. However, they rarely injure each other. But in 1962 a buck was killed by another in the New Forest, the victor's brow tines having penetrated the heart. Even more rarely antlers become inextricably locked, when both beasts perish from starvation. Sometimes a buck is blinded by his adversary.

When an engagement is broken off, the vanquished buck will take himself off with the utmost dejection.

As the does which come to a rutting stand, come in season, so they are duly served, sometimes after a long chase, which may take both deer well away from the rutting stand. Usually a doe is not served at the first attempt. The place of the does which have been served is taken by fresh does, which come into the rutting stand.

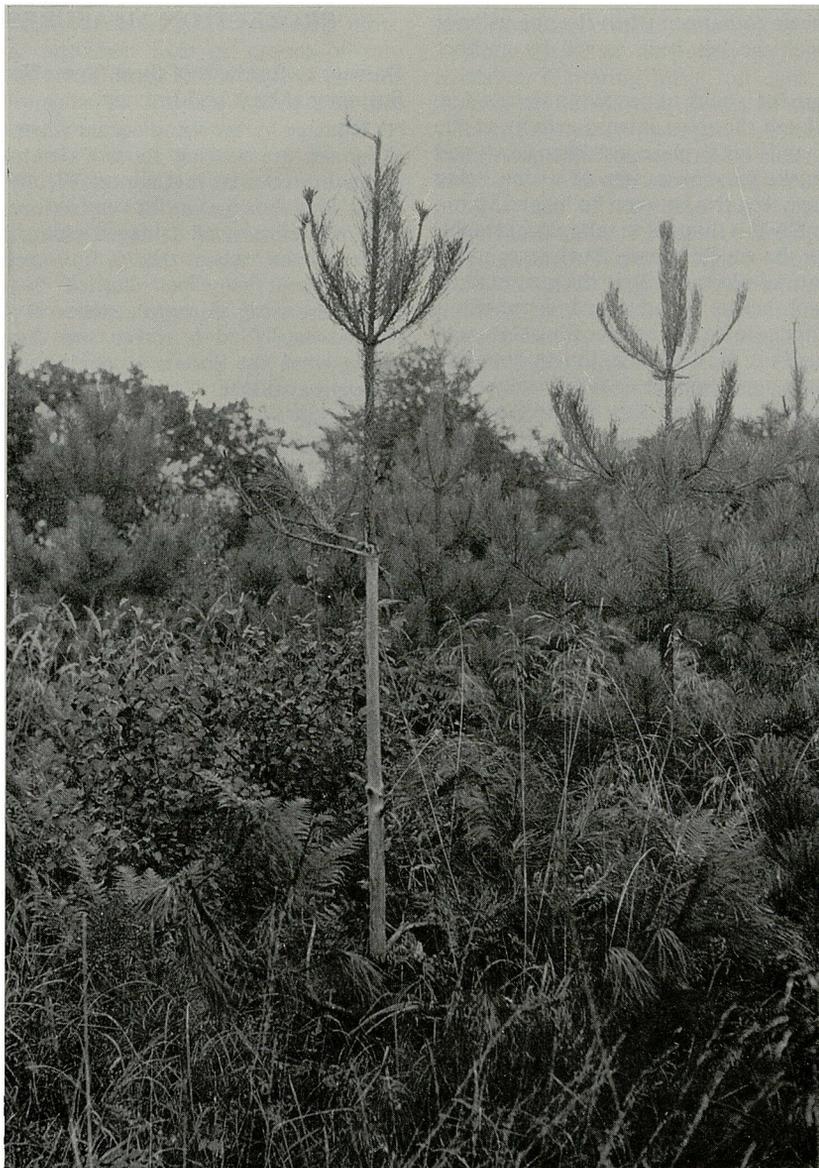


Figure 15. A Scots pine tree frayed by a Fallow buck, when rubbing velvet from his antlers.

On rare occasions a buck may kill a doe. This appears to happen when the doe will not stand or if she has been served by another buck.

It is rare for a buck to be seen to serve a doe, and although the most intense activity at the rutting stands takes place just after dawn and before dusk, most witnesses of a doe being served have seen this between 9 a.m. and 3 p.m., but normally it is thought to take place at night.

During the rut the master buck loses much of his natural alertness. It is the surrounding does which act as a bodyguard, especially if there happens to be present a really old doe, as there usually is. Nevertheless, the rut does give exceptional opportunities to eliminate old and undesirable bucks, and this selective control should be carried out ruthlessly.

When a rutting stand is disturbed, all the deer disperse. But the buck will fairly soon take up his position on an alternative stand and then the does will draw to him again. In an area where disturbance is frequent, a buck will have several different stands. In such cases, at dawn he may use a different stand from the one used the previous night, even without disturbance. Sometimes another buck will use his alternative stands when the master buck is absent. In areas where the deer are frequently harassed, the bucks tend to groan far less. They then rely mainly on scent to draw the does.

During the rut the master bucks eat practically nothing. Therefore they very quickly lose condition and towards the end become emaciated. A buck which has started rutting early may retire from his stand before the end of a rut. In such a case a lesser buck will take his place.

In the New Forest the first buck is heard groaning on about September 27th, and the peak of the rut is from October 18th/25th. The odd buck may still be groaning during the first week of November.

Although there are cases of does of 16 months old being served and carrying a live embryo, it is usual that does do not breed until their second year (i.e. at the age of 28 months). The gestation period is 8 months. There is no delayed implantation as with roe.

X. DAMAGE AND PROTECTION MEASURES

Damage to forests is of three types: Browsing, Stripping of bark and Fraying.

(1) Damage by browsing occurs when deer of either sex are seeking food. Favourite food plants are covered in Chapter VII. Within a forest such damage can be very serious. Complete replacement of damaged plants may be necessary or, when this is not necessary, establishment may be retarded by several years. Browsing damage reaches a peak in winter when food is scarce and during the spring when the buds are opening and fresh foliage is available.

Deer are often blamed for damage done by other animals—ponies, cattle, sheep, hares and rabbits. There was even a case where a deer expert was called in to deal with serious "deer damage" which had been caused entirely by field mice! Deer have no incisors in the upper jaw, the lower teeth closing against a horny pad. Where they eat shrubby growth the upper side of the bitten shoot is shredded or torn, although the underside may be more neatly cut. Hares and rabbits make a clean cut.

(2) The stripping of bark is done by the teeth for food. The incisor teeth are used. It is done by both sexes but there is some evidence that bucks are mainly responsible for July stripping and does for the winter stripping. Where there is an understorey of natural shrubs (spindle, guelder rose, etc.) they should not be cut out unless they interfere with the forest crop, as deer will seek them out in preference to valuable species. Fallow deer are much more prone to eat bark in some areas than others. This may be due to local habit—or to some mineral deficiency.

(3) The incidence of fraying is described in Chap. VIII, Seasonal Activity. Both browsing and fraying may be very serious in gardens near forest areas.

Complete protection can only be achieved either by erecting a deer-proof fence or eliminating all the deer. The latter is rarely possible or desirable. Both methods are very

costly, and fences are only recommended in special cases such as forest research plots, arboreta, specimen trees or groups of rare species or small plots. In the case of gardens and allotments in districts where deer are numerous, fencing is, however, *essential* as it is the only means of providing complete protection. Normally a fence 6 ft. high is adequate, but the bottom half should be made of sheep, pig or rabbit netting. Fallow deer prefer to push through or under a fence rather than jump it, and bucks will readily pass through two taut strands of barbed wire set only 14 in. apart, whilst does will get through an 8 in. gap. Electric fences can be effective. But if deer are stampeded through an electric fence they break the light wire, and unravelling the resulting tangle is beyond a normal man's patience!

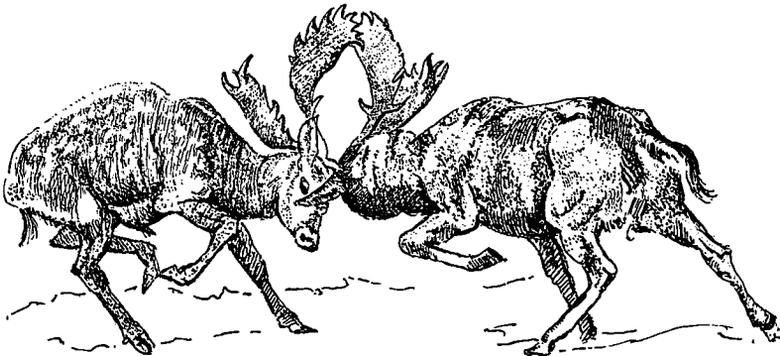
All other methods of protection are palliatives rather than cures. The spreading of brash around newly-planted trees reduces browsing damage, which is always worst where the forest floor is bare. But this is costly and it is not by any means an ideal method. The brash interferes with weeding and it may rot down before the trees have grown above the danger level. All the proprietary sprays are expensive and of short duration. Some can even cause more damage than the deer if applied at the wrong time! All need annual reapplication.

Wool or fibres wound round the leading

shoots of the best trees give a measure of protection, but only to those shoots.

Many forms of temporary protection are available. Glittering tinsel, tin cans hanging from a strand of wire, sewels of twine with coloured rags or feathers tied in, tarred string, bangers and the like can all be effective for a few days. None can be relied upon after deer become used to them and this happens in a very short time. Polythene netting is not recommended because fallow bucks very easily become entangled by their antlers. Great suffering may ensue and even if the net is inspected daily, which is not usually practical, an emmeshed buck is difficult to extricate.

The most satisfactory methods of protection are those which may be called commonsense forest practice. If birch and brambles come up amongst the planted crop, weeding should be as light as possible. Over-weeding leaves the trees fully exposed and it also encourages grass which attracts the deer. Fraying damage can be reduced considerably by leaving single stems of weed species such as sallow, mountain ash and birch on the rides and in glades and openings. Sallow is a favourite fraying stock of fallow bucks. It is also sensible to avoid planting-up traditional rutting stands and to keep them as free from disturbance as possible. Where they are planted, wholesale damage is inevitable. When brashing is done, it should be so arranged that there are always some un-



brushed blocks. Thus deer control is made much easier because their day resting places will then be known; otherwise the deer may harbour in widely dispersed places.

XI. CONTROL

General Considerations. There are now no predators which take fallow deer in this country (although a fox will kill a weak fawn). Without adequate control, any herd of deer will increase until the natural food supply is inadequate to support the number. This may have a critically adverse effect upon other fauna, besides the deer themselves, and also upon rare flora, besides causing harm to forestry and agriculture. Therefore it is essential to kill an adequate number out of each herd, each year, to ensure that the herd is kept down to a size when material damage will not occur.

Successful control depends on:

A sound knowledge of the general biology and habits of the animal:

A detailed knowledge of the local habits:

An ability to make quick assessments of new measures necessary to deal with new local situations.

The man who is too dogmatic about what an animal is supposed to do, sooner or later will fall down badly. The successful man is he who has the ability to observe, very keenly and accurately, and then to draw the right conclusions from his observations, and finally to act correctly in the light of these conclusions.

The man with an itching trigger finger is not a suitable person for deer control. Self-restraint is most important.

There are but few short cuts to knowledge other than by spending every available moment on deer ground. In this connection it is true to say that to understand any animal it is necessary to try to look at the world in general through that animal's eyes—and ears—and nose.

To achieve this intimate understanding, it is better to sit silently on a point of vantage such as a hillock or high seat and observe—rather than to hurry from point to point in the hope of seeing something round the corner. But

when it is necessary to move, it is excellent training to use deer paths rather than man-made rides. Four things become obvious at once:

- (1) That the paths, although appearing to wander haphazardly, lead remarkably directly to and from the feeding and resting areas.
- (2) That a man (or a deer) standing on a green ride, when viewed from 60 yds. inside a thicket, is very obvious because of the extra light on a ride.
- (3) That because deer tend to browse much of the vegetation which they can readily reach, the view from the level of a deer's eye is very much better than that from the level of a man's eye.
- (4) That the slots reveal the ages, sexes and numbers of deer using the paths and the approximate time of passing.

It is important to practise the art of moving slowly and silently: and the ability to "freeze" and remain absolutely still.

The vagaries of wind in hill country and in woodlands may be very tricky, and wind direction must be studied constantly. (In this connection non-smokers are at a disadvantage!) When there is a strong wind blowing, the ground wind direction may be exactly the opposite to the main wind direction at tree-top level. (Fig. 17). A gentle wind may eddy in any direction.

A wild, wet, windy evening is the best of all for stalking fallow deer on foot. They tend neither to hear sounds nor to notice movement because of the patter of rain on the leaves and the natural waving of branches.

Census. After a fair knowledge of the habits of the local deer has been obtained, the next step is to make an estimate of the numbers; though with small herds in small areas of woodland, a fair idea of the number will have been obtained whilst observing them. The best time of year to carry out a census is the end of March when cover is at its lowest and the deer are in herds. A count by sexes and by ages of all deer seen should be made. In practice it may only be possible to cover the

following categories: Great Bucks, immature Bucks, Prickets, Buck Fawns, Does, Doe Fawns. Any unusual deer (white deer or deformed antlers, etc.) should be recorded.

It is the case that the number actually counted will be less than the actual stock, often by as much as 30%. Some men make allowance for this at the time of the census. It is important that over the years the method of obtaining the census figure should be consistent.

In addition to the March census it is important to take a census of bucks at the rut. Ideally all rutting stands should be marked on a 6 in. map with a corresponding schedule of the bucks using the stands. This forms a most valuable record.

XII. THE SHOOTING PLAN

After taking the census, a decision must be made as to how many deer should be killed. Every person in charge of deer control must decide this difficult point before deer are shot. Total elimination of deer is not a sound objective. The cost of such a policy would be quite prohibitive; it is also impracticable unless a deer fence is to be erected, as deer from outside will re-colonise the area.

The objects of deer control may be stated quite simply:

- (1) To preserve plantations and crops.
- (2) To uphold the quality and health of the stock of deer.

Both these objects must be achieved only by humane control methods.

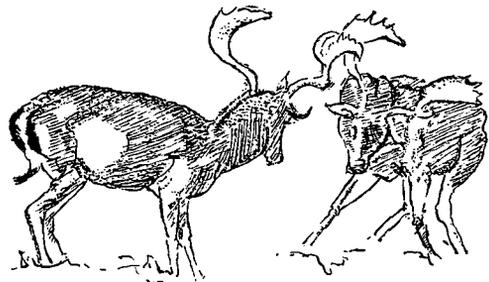
In fact some damage is inevitable: but if the quality and health of the deer stock are good, then the income from stalking rights and venison will offset the damage, provided that the numbers are kept within bounds. It is this balance which calls for skilful control. The following points must be taken into consideration:

(a) *Natural Increase.* This will depend on the age and composition of the herd, and the food supply and range. As a rough guide it is reasonable to assume that the annual increase will be about 33%. Therefore the

next season's stock will be the census figure, plus 33% for fawns to be born between the census and the shooting season. A drastic reduction will be achieved by a kill well in excess of 33%, whilst a kill of less than this figure will result in an increase.

(b) *Selective Control.* Quantity is controlled by killing females, where possible taking old does and those in poor condition. Quality is controlled by shooting males selectively, so as to eliminate inferior animals. An inferior animal eats as much food and does as much damage as a good quality deer: therefore he should be eliminated at as early an age as possible. It is generally accepted that an equal proportion of sexes is desirable, but two does to one buck is reasonable. Where damage by fraying is excessive, three does to one buck is acceptable for a few years until the trees grow through the most vulnerable stage. However culling of males should not be taken too far, for a buck needs eight years to become fully mature, and it requires a number of young males to produce one master buck. It is probably unwise to allow even a good master buck to breed for more than three consecutive years, except in large regions where the fallow deer population is widespread. If he is left too long he will be serving his own daughters.

(c) *Vulnerable Crops.* Where there is a high proportion of vulnerable crops (plantation or agricultural) at stake, a heavier kill is needed than where plantations have passed through the vulnerable stage, or where rough grazings adjoin the forest. Forest



areas with poor feeding conditions require a heavier kill than areas with lush feeding conditions: also the available food may

become reduced during the thicket stage of plantations. It is important to kill those deer responsible for doing this damage,

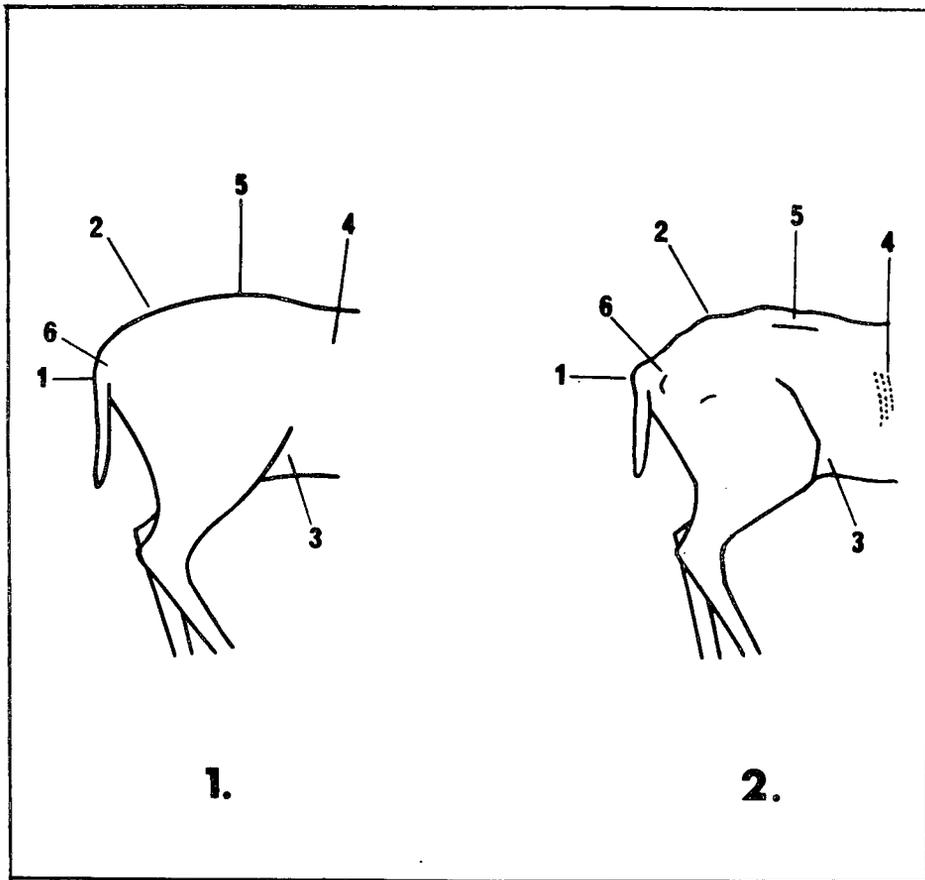


Figure 16. *Condition in Fallow Deer*. The points to look for when assessing condition.

1. The rounded, full curves indicate very good condition (July to September).

2. Poor condition is shown by:

(a) (1) The top of the tail appears angular.

(2) The top of the rump appears angular.

As winter advances, these conditions begin to show, anyway.

(b) If any one of the following points is clearly observed, the deer is in poor condition:

(3) The outline of the front of the haunch becomes angular.

(4) The outline of the ribs becomes visible.

(5) The sides of the vertebrae show as a faint line.

(6) The outline of the pelvic girdle shows.

therefore they should be shot on or near vulnerable areas. Control may be lighter where no damage is being done. At no stage should the deer population be allowed to get out of hand.

All these points must be considered in the light of local knowledge, and then a shooting plan must be drawn up.

It is often recommended that one should make out a diagrammatic shooting plan showing all the deer of the herd split into annual age classes, separate columns being used for bucks and does. Those to be shot are then marked off by a cross, so many for each age class.

This may be a useful exercise and it looks beautifully tidy on paper. It has some application to a very small herd of feral fallow or to a deer park where every animal is known. But it is not a practical proposition to do this where there are large numbers of wild fallow deer. It falls down because the census cannot be expected to be accurate enough to provide the precise details required: in any case it is impossible to distinguish the exact ages of wild deer on the hoof. A good stalker can distinguish an old doe from a young doe, but between three years and, say, eight years does cannot be distinguished in the field. It is therefore pointless to schedule how many does of each age class shall be shot.

However, the shooting plan, based on the census (N.B. see (a) above), must show how many does and doe fawns it is intended to shoot, and how many male deer divided into the census classes: ideally, buck fawns, prickets, sores, bare bucks, bucks and great bucks.

But whoever controls the shooting must be prepared to use common sense and a certain amount of elasticity in implementing the plan. First, any injured deer must be shot at once. Secondly, any inferior animal should be shot (within the open season) when the opportunity arises. If this results in one or two more being shot than was planned, that does not matter. Thirdly, if damage becomes excessive, more deer may have to be taken. In this case it is important to shoot the ringleader, which may be an old doe or one particular buck, on the

ground where the damage is. (Excessive damage may be a result of the census figure being too low: or more deer may have come into the area). Another instance concerns fawns: sometimes one gets a season when there is a marked preponderance of one sex and it may be desirable to shoot more fawns of this sex. In a very severe winter there may be a number of very weak fawns, and it will then be desirable to take these weak fawns in preference to healthy does.

It is absolutely essential that control should be humane and therefore the next considerations are:

Close Seasons

Choice of Weapons

Method of Use of Weapons.

The Deer Act, 1963 (see *Section XVI*, page 38), lays down fixed close seasons for England and Wales. This means that fallow deer may only be shot during the following periods:

Bucks: August 1st/April 30th

Does: November 1st/March 1st.

These dates were designed to allow the maximum possible time for legitimate control (i.e. when the bucks carry antlers and before the does are too gravid in young). For simplicity no short close season was made for bucks immediately after the rut, but most landowners will want to give them a period of grace at this time, when the main effort of control should be devoted to reducing the female stock. It is important to be able to shoot bucks during March and April, when their condition is fully recovered, and when many complaints about deer damage are received. But as fallow bucks are not clean much before the end of August, September 1st is a better date to commence shooting them. *The close season dates must be strictly observed by all concerned in Deer Control.*

Only a rifle of suitable calibre should be used for shooting fallow deer. Absolutely unsuitable and illegal weapons are the .300 Rook rifle, and the .22 in any of its forms. The .240 is the smallest calibre which is legal. It should only be used for killing does and fawns, as it is too light for bucks. Suitable weapons are the

.256, .270, .275, 7 mm., 30.06, .303, .308 or a rifle of similar performance. It is not necessary to use a bullet over 130 gr., and 110 gr. is suitable.

A rifle should normally be used from a high seat where there is a safe background.

It is a great advantage to use a good telescopic sight, although a scope must not be expected to convert a bad marksman into a good shot. Nor should it be used to take extra long shots. The main advantages are first that a fair shot may be taken under poor lighting conditions, when open sights cannot be seen clearly: thus an extra quarter of an hour may be gained at each end of the day at precisely the time when the oldest and most wary deer are to be seen. The second advantage is that about the time in life when a man has to take to reading glasses he can no longer see both the back and foresight of a rifle as clearly as he used to do: but he can still use a scope with complete clarity. The disadvantages of a scope are that it is not easy to use in very

heavy rain: and it has to be treated with extra special care. However, all guns and rifles should be so treated anyway.

It must be conceded that there are areas of woodland frequented by fallow deer where control by rifle may be too dangerous because of the human factor. Such cases are exceptional. They may call for the use of shot guns, when only men experienced in the use of shot guns *on deer* should be allowed to operate. By law (1963 Deer Act) they are confined to SSG shot, or larger. The maximum range should be twenty yards. It should be noted that L.G. gives too sparse a pattern and the percentage kill falls off to under 50% with this shot size.

When shooting any deer by any means, it is desirable to have, nearby, a dog which is trained to follow and bay a wounded deer. Beagles are excellent for this purpose. Jack Russell's or Border Terriers are ideal and they are small enough to be carried on to high seats. But retrievers and other breeds can

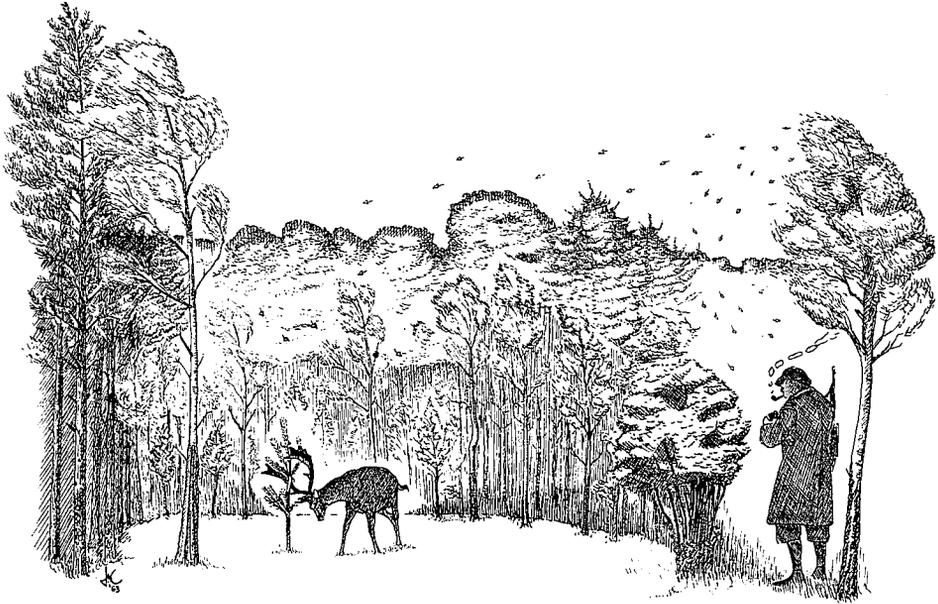


Figure 17. Eddies may affect scent: A gale is blowing leaves towards the buck, but an eddy carries the stalker's tobacco smoke in the opposite direction.

readily be trained. If they run mute they should have a sheep bell attached to the collar so that their movements may be followed.

XIII. THE SITING OF HIGH SEATS FOR SHOOTING DEER

The advantages of using a high seat from which to shoot deer are:

- (1) The use of a high velocity rifle is much safer than it is at ground level.
- (2) There is less risk of human scent reaching the deer, as one's wind will usually pass above them. (Even when there is a down draught, it is often possible to deal with the quarry before it reaches the point where one's scent comes to ground level).
- (3) Deer do not look upwards, and there is little risk of the deer seeing a man in a seat, provided that he remains still and quiet.
- (4) A good view of a much greater area is obtained from a seat. Thus observation, census work and efficient shooting are all aided.

There are many considerations to be borne in mind before a decision can be made as to the precise siting of a deer seat. In some circumstances a few feet one way or the other may make the difference between success and failure. Height is also important. A seat at 25 ft. above ground level may give a splendid view in winter; but in the autumn one is likely to be enveloped in dense foliage, whereas a 10 ft. seat will give a view under the canopy.

The first consideration is objective. Is the seat required for observation and counting, only? In that case the widest possible area should be covered. Or is it required mainly for control? If so, different siting may be required for male deer and female deer. Adult bucks do not graze on grassy rides so much as does and fawns do.

A frequent mistake is to site the seat so that it overlooks the centre of a cross-roads. Deer at such places usually cut the corner, so that they can pause for a moment in cover before

crossing the ride. It is better to cover one good crossing place, which is regularly used, than the junction of four rides which is not used.

When siting a seat to cover a particular crossing place, or path, the mistake of placing the seat over, or beside, the deer path is often made; in such a situation one is presented first with a head-on shot, then, all too soon, with a view of the top of the deer's back, only, and finally his fast-receding bottom. None of these aspects presents a good target, and one may well have the frustrating experience of being unable to shoot at all, even though the right buck may have passed within a few feet of one. The seat should be sited so that the deer pass broadside on at 40/80 yards, against a safe background.

Deer behaviour varies so much with the time of year that it is most important to remember this point. A site chosen because deer are using it in the spring, with the object of shooting them the following autumn, is likely to prove unsuccessful. They may not use it again until the next February—or at any rate until the rut is over. Similarly, rutting stands are not regularly used outside the rut.

In due season crab-apple trees, beech stands in mast years and oak trees laden with acorns, all draw deer. A mobile folding seat is very useful for these seasonal sites.

The time of day when a seat is to be used is important. If it is to be used in the evening, it may be placed on the edge of the feeding-ground. But in the morning it is rarely possible to reach one so placed without disturbing the deer. For morning use the seat should cover a suitable area between the main feeding ground and the day-time cover. Fallow deer, which have fed on a field during the night, will often spend quite a long time in "open forest" before seeking a place in which to lie up.

Siting the stand in relation to the sun is important. Nothing is worse than having a low blinding sun shining straight into one's eyes. The oldest bucks move last in the evening and first in the morning, when the light is poor. Other things being equal, the seat should be sited so that it is in shadow and the clearing is in the maximum amount of light.

A background for a seat is not essential, but it is desirable, where possible.

Normally a seat is sited so as to give an uninterrupted view over an open space. Deer spend a lot of time in cover at the edge of open glades. Where the woodland is not too thick it is an advantage to be able to see into the edge of it, where deer will stand before coming into the open. A good site is that of a seat at the edge of thick cover, looking through fairly open woodland towards a cleared space. From such a site, deer are easily seen outlined against the open ground.

It is essential that a seat should be reasonably comfortable and well secured. If one is sitting on a knobby surface with one's feet dangling in space, it is impossible to keep still for long periods, without one's limbs going dead, or getting cramp. A good foot rest is therefore necessary. A little camouflage is useful, but it is a hindrance if it catches the rifle as one raises it, or if it rustles each time one mounts the field-glasses. A folding saw, or a pair of strong secateurs, make useful equipment when one occupies a tree seat for the first time, and careful attention must be paid to pruning branches and small twigs which may be in the line of fire.

The approach to a seat requires thought. Normally the seat should be sited for the prevailing wind of the area, so that it may be approached without giving one's wind to the deer. This is obvious. But in practice it may be very difficult to achieve, for the very simple reason that there may be three directions which must not be disturbed by one's wind—in the evening these are the feeding ground, the day's resting ground and the zone of approach by the deer. If there is any doubt about the wind it is better not to use the seat concerned on that day. If follows that seats for use in different winds, yet covering the same area, may be desirable.

In the evening, it is better to risk giving one's wind to the feeding area, rather than to the day resting area, or to their approach line. Once one is in the high seat one's wind will normally be above the level of deer on the feeding ground, but if they are aware of one's

own approach *before* they have moved out, one's evening will be wasted.

It is a very good thing to keep a small path swept clear of leaves or twigs, so that one can reach the seat without noise. In woodland, deer can be led into openings within view of the seat by clearing racks through through the undergrowth. They will soon start to use them, especially if deer paths, which lead the wrong way, are blocked with cut bushes, branches, etc. It is also obvious, but nevertheless often forgotten, that the ladder should be on the side hidden from the deer, so that one can climb up with the minimum disturbance.

The rungs of the ladder should be fitted into the stiles by rabbet, notch or mortise; it is not sufficient merely to nail them or screw them on. Any ladder to be used by employees must comply with the Agriculture (Ladders) Regulations 1957. (S.I. 1957, No. 1385) H.M.S.O. 4p post free.

The erection of a seat and all work concerned with it, such as pruning foliage, etc., should be carried out during the middle part of the day. Work should cease well before the deer are due to move. Yet, quite often, because keepers are always busy with routine work, they will defer making the seat until the evening. Good sites may be ruined for several weeks by work being carried out at the time of day when the deer are wanting to use the site. Permanent seats should be large enough to seat two men.

Under woodland conditions, especially where there is an understorey of hazel or coppice, shooting "lanes" may have to be specially cleared. These lanes, or vistas, should be wedged-shaped, becoming wider away from the seat. The best use is not being made of a rifle, if a shot cannot be taken up to 100 yards.

Finally there is the rather important item of collecting your deer after the shot. A good fallow buck may weigh over 200 lbs. There is no point in placing a seat a mile away from a hard track, if there is a much closer alternative.

Shooting will be done with a rifle. It is a good plan, if possible, to have 2 or 3 rifles out on the same evening on seats in one area. Each

XIV. TAKING THE SHOT

must know where the other is and each must remain in his own area. Thus, all the movements of deer in that area will be observed that night and there is ready help for dragging out a big buck.

Deer drives by beaters to men posted with shotguns are unnecessary, and often inefficient, as well as being inhumane. No reputable estate should permit them.

But in woodland areas there is a case for "moving" deer to rifles posted at suitable vantage points on high seats. One beater is sufficient. This is an efficient method, especially suitable for small isolated woods which are only visited at irregular intervals. In such areas waiting at dusk will not give results, but when fresh slots are seen leading into the woodland, then the deer can be moved out to a waiting rifle. Deer injured on the roads can be dealt with in a similar manner, as they will not show up unless they are put up.

All rifle shooting must only be done by experienced and safe shots, and this is especially necessary if a beater is known to be moving deer forward. Both he and the rifles must know every inch of the ground, and the rifle must have a clear view across an open area.

Any trainee stalker must always be accompanied, and be closely supervised, by an experienced rifle shot.

A thumbstick is a useful tool for anyone stalking deer in woodlands on foot. It is useful to have a lanyard attached to one's belt, or to a buttonhole at one end and the other end attached to the thumbstick. The stick can then be released without falling to the ground if both hands are required for holding field glasses and rifle.

A face mask is a simple piece of equipment which is of very high value. A deer will often stand and stare at a man wearing a mask when it would be away in a flash had it seen a human face.

A good pair of field-glasses should be the first equipment to be acquired—long before the calibre of the rifle to be used is even considered. The most useful magnification is 7×50 .

There are three main considerations:

Safety: The fact that deer are grazing unconcerned does not mean that there may not be a human being, or animal, within the danger zone beyond.

Choosing the Right Deer: This is a matter of experience. Promising young and middle-aged male deer should be spared.

A Clean Kill: Long shots, trick shots, moving or difficult shots must not be taken.

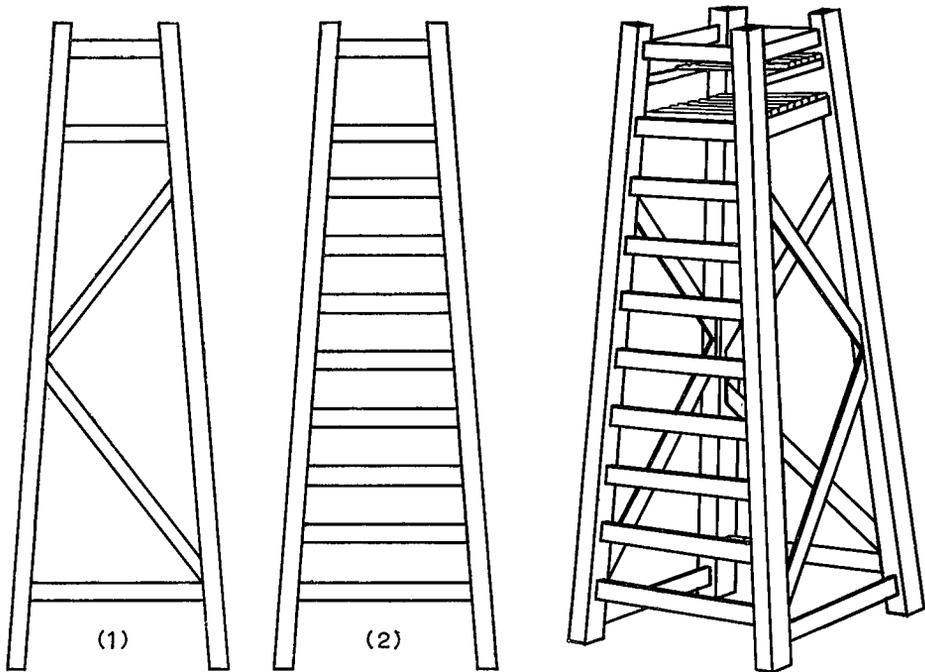
If in doubt about any of these points, *do not fire*. There is always to-morrow.

Let us assume that the man with the rifle is knowledgeable about the habits of deer, and that he is working to a shooting plan based on an estimate of the local deer population in relation to damage and the natural food supply. Let us assume that he is proficient in the use of a rifle on a range and on a life-size deer target shot from a high seat. He has reached the stage when he may start to kill deer. He has taken up his stand, which may be a high seat or a point of vantage on the ground. His field glasses are focused and ready for use. His rifle is loaded and at "safe".

First, he must decide in which directions it is safe to fire (i.e. where there is a safe background which will hold the bullet or any possible ricochet without danger to man or beast). However tempting a chance may be offered in any other direction, it must be resolutely refused.

Second, he must estimate 100 yds. in each of the safe directions. (If in doubt it is better for him to make it 85 yds.) He will then memorise various marks on the ground at this distance—a log of wood, a patch of white grass, or dark heather, etc. If a deer (the right deer to shoot) appears outside this range, he must resolutely discard the temptation to fire.

Third, when a deer appears, he must examine it carefully with his glasses in order to determine whether it is a shootable deer. A shootable male deer is one of any age with a poor head, or an old buck going back. In the case of female deer, a poor fawn or an old doe



1 and 2 are made first - not less than 10 feet to floor. Use bolts for frame

Figure 18. A high seat for shooting Fallow deer.

will be preferred to others. The condition of the coat is a good guide. Where excessive numbers have to be reduced, female deer should be shot in preference to all others, but never, of course, during the close season. Normally the man with the rifle will know broadly what deer he expects to see from any chosen stand. He should know precisely which deer he intends to shoot before he sets out from home.

Fourth, he must not take aim until the shootable deer presents a clear view of a vital target. If there is only one twig in the line of fire, the shot must not be taken. A leaf or frond of bracken will cause a high velocity bullet to split up. On no account should a rifle be fired through even a thin cover of twigs or bushes. The beginner will be well advised to confine himself to the heart shot. (It is very important that he shall have seen deer skinned and gralloched, so that he will have a sound knowledge of the relative position of the heart, lungs, liver, stomach and bowels.) A close range the neck shot is sound.

The head shot is undesirable. It is all too easy to smash the jaw bone, an injury which is abominable and which is one of the most difficult to follow up successfully.

Let the shooter visualise the effect of his bullet, not as a hole in the side of the deer, but as a shaft, or arrow, piercing the deer. It is important to think of the exit point of the bullet. The chosen deer may be standing in a slightly oblique position and an appropriate allowance must be made in order that the heart shall be hit. This is especially important when shooting down from a high seat.

It is also most important to memorise the exact place on which the deer is standing. It is essential to be able to find this precise spot after the shot is taken.

The shooter must also make sure that his own position is comfortable, otherwise his accuracy is impaired. His left arm should be through the sling of the rifle; the rifle must not be rested on a solid object. It is the left hand which should rest on a solid object, if available, or grasp a thumbstick for added steadiness, if a standing shot is to be taken.

When all these many preliminaries have been duly considered, the time has come to take aim. The safety catch is pushed forward and, if the deer is standing squarely, aim is taken by sliding the foresight up the inside of the nearest foreleg until a point has been reached somewhere between $\frac{1}{3}$ and $\frac{1}{2}$ of the width of the body of the deer. The sight is held steady and the trigger gently squeezed. If the shooter is breathing heavily or if the rifle cannot be held absolutely steady, the shot must not be taken. Lower the rifle, rest a few moments and then try again. At the shot, if placed correctly, the deer may bound forward and go off with a headlong rush, often as if untouched. He will swiftly drop dead, somewhere between twenty and eighty yards. If the shot is high, the deer may drop dead where he stood. But it is always wise to be doubtful of the deer which drops at once. It may be stunned. If the shot is behind the heart, then he will often move off slowly, giving the chance of a second shot.

It is a mistake to hurry after a wounded animal if hit in the stomach. He should be given half an hour or so to settle down and grow stiff and then be followed by a dog. Accounting for a wounded deer must take precedence over all other activity.

In all cases it is essential to examine carefully the precise place where the deer was standing, even if a miss is thought to have occurred. If the deer has been hit at all, the "pins" of hair will give an indication as to where he was hit. The blood trail will also give evidence of a heart shot (dark) or lung shot (pale red and frothy).

If a deer shot through the heart cannot be found on the straight line on which it has started, it is often the case that it will have turned at right angles to the point of entry of the bullet, a short distance before dropping. Sometimes it may turn at right angles to the exit hole.

XV. DISEASE IN FALLOW DEER

Wild, free-living fallow deer are, on the whole, remarkably free from disease, although it must

be borne in mind that it is only comparatively recently that much attention has been paid to this subject, and new conditions may yet be discovered. Before the eradication of tuberculosis from domestic cattle in Britain, venison was welcomed by the hospitals as being free from this infection; brucellosis, another scourge of domestic stock, is fortunately comparatively rare in deer. Foot and Mouth disease has not, so far, been detected in free-living British deer even when these animals have been in close contact with outbreaks in domestic stock. Many deer are heavily tick-infested and it is not surprising that Tick-borne Fever has been found recently in fallow deer in the South of England; but the effect, if any, on the deer themselves has not yet been determined.

Parasitic pneumonia, caused by lungworms, although common in roe, rarely seriously affects the fallow species despite the fact that many lungs show some degree of past or present evidence of infection. Damage to the liver by liverfluke often occurs, particularly after a series of wet summers, favourable to the snails which act as intermediate hosts for the parasite. On the other hand, a prolonged wet winter tends to cause lameness in deer because of foot rot. Fortunately, with the ensuing dry spring weather, recovery is usually rapid.

It is interesting to note that abnormalities of antler development may be associated with diseases such as parasitic pneumonia, or heavy fluke infestation.

XVI. LEGISLATION

1. Game Licence

Under the Game Licence Act, 1960, it is necessary to possess a game licence in order to kill deer. This does not apply to deer killed on enclosed lands or to deer hunted by hounds.

2. Deer Act 1963

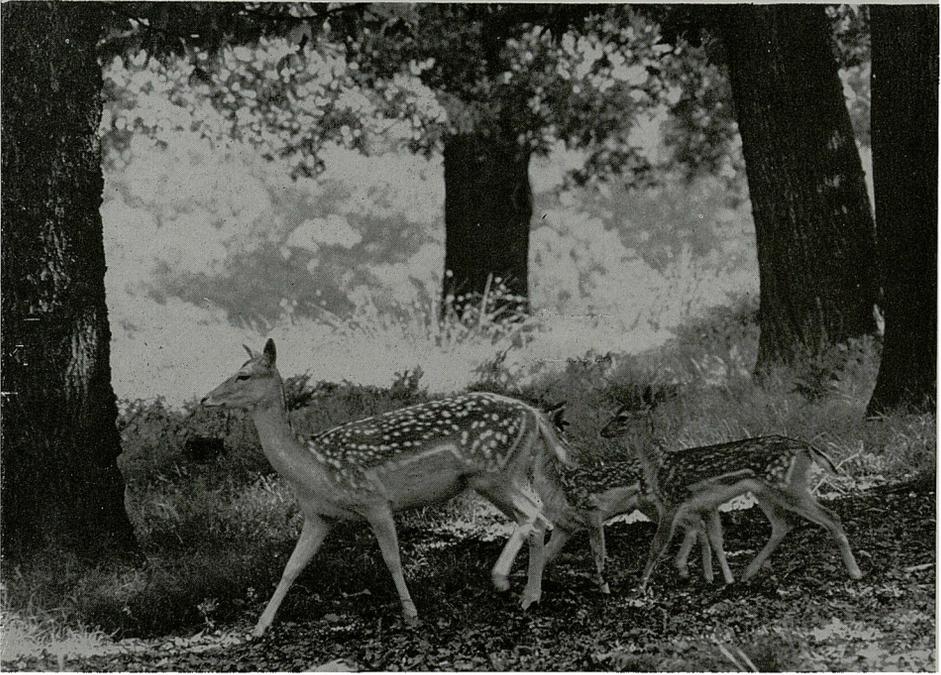
This Act prescribes close seasons, prohibits shooting after dark or snaring deer, and defines weapons which may not be used. It applies only to England and Wales.

Copies of the Act may be purchased from

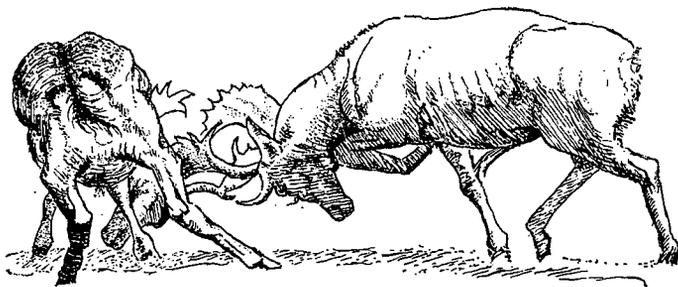
Her Majesty's Stationery Office, price 4*p* net (by post 6½*p*), and it should be consulted for the detailed legal provisions.

The following is a synopsis of the Act's main provisions:

- (1) Close season from 1st May to 31st July (inclusive) for all male *Red*, *Fallow* and *Sika* Deer.
- (2) Close season from 1st March to 31st October (inclusive) for all female *Red*, *Fallow*, *Sika* and *Roe* Deer.
- (3) Killing of deer prohibited between expiration of first hour after sunset and the commencement of the last hour before sunrise.
- (4) The setting of traps, snares, poisoned or stupefying baits in such a position as to be calculated to cause bodily injury to deer, is prohibited.
- (5) The use of traps, snares, nets, poisoned or stupefying baits for the taking or killing of deer is prohibited.
- (6) The use of any of the following for the injuring, killing or taking of deer is prohibited, namely:
 - (i) any of the following firearms or ammunition:
 - (a) Smooth bore gun of less gauge than 12 bore.
 - (b) Rifle having a calibre of less than .240 inches or a muzzle energy of less than 1,700 foot pounds.
 - (c) Any air gun, air rifle or air pistol.
 - (d) Any cartridge for use in a smooth bore gun other than a cartridge purporting to be loaded with shot none of which is less in diameter than .269 inches.
 - (e) Any bullet for use in a rifle other than a soft-nosed or hollow-nosed bullet.
 - (ii) any arrow, spear or similar missile.
 - (iii) any missile, whether discharged from a firearm or otherwise, carrying or containing any poison, stupefying drug or muscle-relaxing agent.



Figures 19 & 20. (*above*) Fallow doe with two fawns (*below*) young Fallow buck jumping stream.



- (7) The discharging of any firearm or the projection of any missile from any mechanically propelled vehicle at any wild deer is prohibited.
- (8) The use of any mechanically propelled vehicle for the purpose of driving wild deer is prohibited.

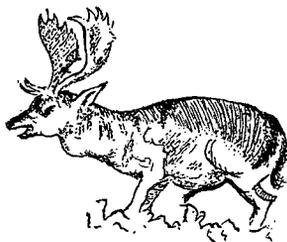
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