

Developing a National Deer Management Strategy:

A response to the Draft Deer Management Policy Vision

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There is a need to manage deer populations to address overpopulation, to ensure healthy populations, to control disease, to protect habitat and limit damage to forestry and crops. The three common pillars of sustainable deer management are mentioned in the Inter Agency Draft Discussion Document of 2010 – environment, economy and social wellbeing - with of course deer welfare being particularly important.

The various stakeholders will have different priorities in developing such a strategy. The group developing such a strategy should consist of as wide and experienced a group of stakeholders as possible, under an independent chairman, with possibly a restriction on numbers to ensure the interests of no particular sector would dominate. Initially a core group of aspirations should be decided on and as these are actioned upon and as a mutual trust develops a more coherent and wide ranging strategy may develop.

There are areas of relatively high deer densities in Ireland where those species have caused considerable problems to farmers and foresters over the last thirty or so years. However in the last couple of decades there has been a considerable expansion in the range and distribution of deer species, due to natural movement in the case of sika and red deer, accidental escapees from deer farms in the case of fallow and red deer and deliberate release into the wild of all three species.

In those marginal areas where deer densities are still low, landowners may at the moment have a rather benign attitude to their presence, but as numbers increase this is likely to change. At present deer control is done on an ad hoc basis either by unregulated hunting or dependant on landowner policy, though in some other European jurisdictions the deer management process and optimum deer density levels are set on a statutory basis.

A concise guide to the different deer management systems in each European country is given in 'European Ungulates and their Management in the 21st Century' edited by Apollinio et al, Cambridge University Press, 2010. It is a sad reflection on this country's lack of any coherent national deer management plan that the Republic of Ireland is the only country doesn't even get its own chapter, but is lumped with the UK! Even Greece with practically no wild ungulates gets its own chapter...

Presently there is little anti hunting sentiment in Ireland. It is important that any body overseeing a NDMS passes on the message that deer management and control helps maintain a healthy environment and produces healthy food. At this present time the country could benefit from the development of the deer sector, through sporting leases, wildlife or hunting tourism or processing of culled carcasses. Currently many

landowners allow deer to be shot on their land, often illegally, without understanding the valuable resource they have which could add to farm income, whereas in other cases land is let to the highest bidder without due regard to their proper ability to control the deer population. With regulation and enforcement of deer management structures and in particular with the provision decent training it may be possible to arrive at a situation where both the landowners and deer population can both coexist in relative harmony.

Any NDMS should identify and help develop a market for deer related services and products to add value in those areas where deer densities are greatest. Venison sales to consumers in the UK have increased by 34% in the years 2006-2009 and the country has gone from being a net large scale exporter to an importer of venison. Wild venison prices are currently on a fifteen year European high. As a product it is extremely healthy, low in fat and high in omega oils. Because of the lack of any structure that allows private individuals to sell small amounts of wild game directly to the public a scheme should be made available to allow shared larder facilities for the temporary storage of wild game in areas of the country currently not serviced by the six licenced Game Handling Establishments. This will have the effect of helping to curb the illegal export (with subsequent loss of cull data) of large numbers of deer carcasses across the border into Northern Ireland and from there to the UK.

Suggested stakeholders:

For any National Deer Management Strategy to work there must be engagement with as many of the relevant interest groups as possible – and preferably from any early stage.

The following groups should ideally make submissions, and while all may not be keen to sit on a committee develop the strategy, they may wish to make a contribution only when the agenda affects their own areas of interest. Interested parties would include the following State and Semi-State bodies: Wildlife Service, Forest Service (DAFM), Coillte and Teagasc. The Wildlife Service have obviously a central role in this through supervision of natural habitats, licencing of deer hunting, enforcement of the Wildlife Act and responsibilities for data collection. They should take a lead in this initiative rather than hiding behind a perceived lack of resources. Decisions need to be made and if resources are not available for some initiatives at present then funding may be required from elsewhere. Representation is required from bodies representing landowners such as IFA, ITGA, SIF, WOI and others. Also from bodies representing deer hunting interests, there are ten national and regional deer organisations, plus CA and NARGC. There are technical interests which may have important roles to play, but maybe in only a small area of policy development. They may not wish to take a full part in such a group but would be happy to be involved if required, such as FSAI, DAFM (Veterinary Section), RSA and licenced game dealers. However there are others, and these are the important unknowns, many people who value deer in the environment and care about what happens to them. How representation can be achieved needs to be considered. Conservation organisations such as the Irish Wildlife Trust and Birdwatch Ireland are likely to have an interest in the issue. Finally there are interested individuals with particular professional skills who could contribute to the project.

There are a number of issues involved in developing a NDMS:

- Deer Management.
- Habitat Management.
- Hunter Management.
- Population Monitoring.
- Deer Welfare.

Deer Management:

The various stakeholders in an area need between them to decide on the optimal deer density, locally, regionally or nationally. This need not be a count of the deer but a vegetation survey will give a guide as to whether densities are too high. This will vary according to habitat, farming practices and species of deer present. This is often referred to as the 'cultural carrying capacity'.

Most wild deer populations have an abnormal sex ratio, with a large percentage of females in the total number of that population. This is due to overshooting of males, particularly younger males, which in turn has resulted in a lack of mature males, particularly in the case of fallow deer.

Excessive unregulated over hunting of an area may appear to reduce the population of deer in an area, but in fact may just do so because by making them shier they become less visible.

Deer shooting open seasons need to be reassessed. With three species of deer and diverse habitats and deer densities, it should be possible to vary open seasons at different times to suit local conditions, rather than dealing with issues in the rather crude way of issuing almost blanket Section 42 (out of season) licences allowing for the killing of deer including lactating females during the summer months.

If deer densities are too high the season for killing female deer should be extended. An earlier or later female season would make the culling of them less weather dependant. Properly trained hunters should be able to recognise yearling females, which could be culled from September. Fallow deer have their young 2-3 weeks later than red or sika deer. If on welfare grounds it is defensible to cull fallow does on November 1st it should be equally defensible to cull sika and red hinds from October 15th. This would also have the affect of reducing the pressure on male deer earlier in the season. There is no biological reason not to allow the culling of female deer into March or later, but it is indefensible on welfare grounds to allow the killing of female deer in the summer months when they have dependent young.

Selling of deerstalking and deer carcasses in a regulated way can provide an income to offset some of the damage to crops and forestry. This has been utilised to good effect by Coillte to mitigate some of their losses to damage, but to date only a few larger private landowners let deer hunting rights. The cooperation of a number of smaller landowners in this regard to put their combined deer, and possibly other, sporting rights to tender would provide an income to them and allow the hunters enough security of tenure to invest in the structures, such as high seats, essential for good deer management.

Habitat Management:

In some areas of the country the presence of large numbers of deer over a long period has resulted in very little natural tree and scrub regeneration resulting in lack of browse or low ground cover required for birds, small mammals and insects thereby affecting biodiversity.

Deer management is essentially vegetation management. Browsing and overgrazing destroys the understory. Hunters need to be taught that too many deer for a habitat may actually not necessarily mean a large number of deer.

The effect that deer can have on an environment is ably demonstrated by deer exclosures. In areas of high deer density these should be routinely erected to act as controls for the efficacy of deer management. One of the major reasons for bracken encroachment in areas of forestry and uplands is due to overgrazing by deer and sheep. The shading effect of the bracken hinders regeneration of other plant species and affects the diversity of plant and animal species.

Farmers and foresters need either to address proper deer control or else reassess their planting strategies. Small areas of trees cleared and replanted will attract more damage by deer than larger areas, but will almost certainly make it easier to control deer numbers. Large areas of mature sitka spruce make proper deer control almost impossible, but though there is a more enlightened view to restocking in recent years, many hunters are trying to control deer in a very difficult environment. This is particularly so in Coillte leases where the trees are planted to the edge of the property and in most cases the leasee has no right to kill deer on the land onto which the deer emerge.

Scottish research has shown how reducing deer numbers on open moorland has allowed grouse numbers to increase by reducing the numbers of ticks which carry louping ill, a major killer of red grouse. Stakeholders must realise that allowing the numbers of one wildlife species to be unsustainably high can have a markedly adverse affect on other less visible but more threatened fauna and flora.

Hunter Management:

It is essential that there is a strong hunter body providing leadership and quality training to those involved in culling deer. Currently there are a number of bodies which aim to fill this role but actually represent only a small number of licenced deer hunters. Most deer hunters at some stage join one or other of these organisations but rarely remain as members. What little training they provide is basic and not audited, geared only to the entry level deer hunter, without offering anything to those with more experience. Many of these organisations need to reassess their role and develop more professional structures. There is no place in a small country for the plethora of deer associations/societies and their various sub branches. Unfortunately there seems little will for these groups to merge to provide a stronger voice both for the deer hunter and the deer that they like to think they represent.

The majority of deer hunters are based in those areas such as mid Leinster, Donegal and Munster where traditionally deer densities were the highest. Hunters were used to

seeing relatively large numbers of deer, even if they did not actually shoot large numbers. They need to be educated to the fact that in many areas these high densities are/were not sustainable and that there needs to be a rebalancing of expectations. Large numbers of deer made for easy deer hunting, but not necessarily a good hunting experience.

Hunters need training in deer management. Few hunters are able to age live deer. They need to be able to age male deer. They need to learn how to differentiate between adult females, yearling females and juvenile deer. They should be able to differentiate the sex of juvenile deer in the late winter and spring, particularly if an open season is to be extended into March. This should be second nature by assessing the deer's size, shape, behaviour or other characteristics.

Unfortunately the development of quality deer management requires extra effort in controlling females and more thoughtful consideration of what males are to be removed. It is rare to get consensus between a group of hunters culling deer in the same areas to agree to a proper cull plan, but strict control of sex and age classes of the deer taken is essential to proper management.

Even if consensus can be achieved unregulated poaching by night can be a problem. Another difficulty encountered is the fact that the most popular time of year for deer hunting is September and October, when deer are often quite visible and distracted during the rut, but only male deer can be killed. By the time the female season opens on November 1st deer naturally become quieter in their movements as the rut settles and having been subjected to two months of hunting pressure. This coupled with reduced hunting pressure as many hunters turn their attention to pheasant hunting, more inclement weather and other social distractions in the run up to Christmas means that the required number of female deer to be killed are very often not taken.

Population Monitoring:

It is essential to develop a strategy for accurate data collection. Decisions made locally or nationally relating to deer management need to be made on a good scientific basis.

Cull data or observational data. The actual number of deer in an area is not that important, what is relevant is to have healthy habitat and healthy deer with little landowner conflict. The only benefit in trying to measure the number of deer or the size of the cull is to get a handle on where we are and to act as a baseline for audit of ongoing performance. However for these figures to have any value they must be collected in correct, standard and verifiable way. Currently as NPWS are unable to put resources into this, it would be up to hunters or landowners to supply the raw data. To do this they need to be trained.

Much used to be made of organising deer counts to assess deer population size. These were traditionally used (and still to this day by SNH in Scotland) to assess the numbers of open ground deer. With the exception of higher mountain areas of the country with little forestry planting this is not a feasible method of assessing the deer population nationally.

To get an idea of age structure, samples from culled deer should be examined and aged, possibly through game handling establishments. If the deer hunting organisations could get their act together they could provide training courses in jaw aging, pellet counting and many of the other tools of modern deer management. In New Zealand, for example, the major hunting organisation will only allow trophy deer heads to be measured if accompanied by the lower jaw for aging purposes. There is no better way than this for hunters to get a basic concept on how to assess the age of male deer at least.

Deer Welfare:

In recent years as the deer population has grown, habitat has suffered, but in most cases because of our mild winters there has been sufficient food for most deer to get through the winter in relatively good condition. However the severe cold weather in some areas in Spring and later the Winter of 2010, particularly in upland areas, caused losses of many deer, particular males in poor condition after the rut and in juvenile deer. This should act as a wake up call to those managing deer in these areas that the carrying capacity of such habitat has been exceeded.

Establishing Local Deer Management Groups:

DMGs should be based in geographical areas conducive to managing particular populations of deer, a particular valley, mountain, or large forestry block. Initial meetings should be held in a central area involving as many local landowners and deer hunters as possible. Meetings should preferably be chaired by an individual with deer management experience, though without a vested interest in that deer management area. The deer management group should form a small committee of both landowners and hunters and establish rational goals and strategies. There should be regular follow up meetings. The group should try to devise their own criteria for assessing the success of the strategy, either by cull targets, animal censuses or habitat damage assessments. The challenge is to try to merge the disparate interests initially, to maintain the dialogue of a regional deer management group going forward, and to convince uncooperative landowners and hunters within the area of the DMG to become involved.

Recent reports relating to wild deer management in Ireland:

There have been a few reports in recent years pertaining to the relationship between deer and forestry. Both draw heavily on published data from abroad but in many cases the conditions in Ireland (farming/forestry practices, land ownership, deer hunting practices, human population densities, deer population densities and deer species) make direct comparisons more of a hindrance than a help.

The Woodlands of Ireland report in particular makes a number of unfounded statements which because they go unchallenged by other stakeholders then become ingrained as fact, as have the NPWS deer cull figures which, though completely unverified, are published annually. A culture has developed whereby deer are demonised as being a severe problem, even where there numbers are low or in areas where they are well controlled.

The following points raised by the WOI report need to be addressed.

'Wild deer present severe difficulties regarding disease outbreaks such as foot and mouth': This is quite untrue. In the UK outbreak in 2001, the decision not to cull or disturb wild deer in foot and mouth infected areas left no reservoir of infection in the wild deer population. This despite the major deer species in many of the infected areas being roe and muntjac, species being much more susceptible to the FMD virus than any of the deer species found in Ireland. The report also overplays the significance of bovine tuberculosis in deer, the role played by deer in the spread of tick borne diseases such as Lyme's disease and in particular by mentioning chronic wasting disease, a prion disease that has never been reported outside the United States and Canada.

'Deer Road Traffic Collisions': Despite the publicity given to the issue in recent years the prevalence of deer related RTCs is not an issue on the same scale as other countries in Europe. There are a couple of factors affecting this:

- Irish deer in general tend not to be found in high densities in areas of high human population.
- The species of deer found in Ireland are not territorial (as are roe and muntjac in the UK) and therefore there is less displacement of younger animals into areas where they may be unaware of traffic hazards, except in autumn during the rut.

Where there are issues are mainly in the areas where motorways have been built or roads upgraded. Road user speeds have increased. Fencing of these roads can be a problem. Good fencing can prevent deer getting onto the roadway but if not continuous for long periods inadequate fencing can mean that deer that do get onto the carriageway are then unable to get off it. It is not correct to compare the situation of RTCs in the UK to any potential similar problem in Ireland.

'Ill founded reliance on recreational stalkers': Recreational hunters form the basis of deer management in all European countries with the exception of certain large acreages in places such as the Highlands of Scotland and large forested areas in Eastern Europe. To suggest that employing professional deer cullers would be cost effective in Ireland with small landholdings, shows a lack of understanding of the issues and productivity of such a group. Who would pay their wages and expenses? The relatively small number of deer shot by these recreational hunters is in many cases more than offset or compensated by the subsidies they provide to landowners for the presence of deer to hunt on the land in the form of sporting leases. Comparing the numbers of deer shot by different types of hunters without any personal details is very misleading. Many of those killing large numbers of deer are doing so at night with a lamp either illegally or legally under licence. Direct comparisons cannot be made. There is reliance in this document on dubious hunter bag returns supplied to NPWS often six months or more after the animals are killed. It is suggested that *'recreational stalking should continue just as that and should form the basis of revenue generating deer stalking enterprises'*. Nowhere in the report is it suggested how this may be achieved or on what basis significant revenues can be generated. The Irish situation of landownership is different to that in many other European countries. There are relatively small acreages involved with landowners in the tradition of giving the shooting rights to local people for free (NARGC gun clubs). There is not the large urban population removed from the land that will pay high prices to be taken deer

hunting as in other countries, even those living in Irish centres of population will have ready access to areas to hunt and would be unwilling to pay the prices required to subsidise a 'commercial deer stalking' enterprise. There is only limited scope for bringing in foreign tourist hunters to hunt deer. They will not travel to hunt fallow deer, our most widespread species, which are widely available elsewhere in greater quality. In general, few foreign hunters wish to shoot female or juvenile deer. Wild sika, however, do offer some potential for commercial stalking, but in reality only for a small number of weeks per year. But sika, once a novelty for other European sportsmen and a unique experience for hunters visiting Ireland are now available for hunting in eight other European countries in ever increasing numbers.

'Venison: No properly established quality control system': This is quite wrong. The controls on the sale of wild shot venison in Ireland are the strictest in Europe, and in view of many, including me, are far in excess of that required considering the food borne risks pertaining to the sale of wild game. Currently all deer carcasses sold legally within the state are subjected to a full examination by a qualified veterinary surgeon, either in a local authority or Department of Agriculture licenced Game Handling Establishment. There are six such plants licenced in the state. There is however an illegal trade in non inspected carcasses out of the state via Northern Ireland. The Food Safety Authority of Ireland in 2011 have accredited a course for the training of hunters to inspect game carcasses to comply with Regulations (EC) No 853/2004. However even when hunters are so trained they will still be precluded from cutting carcasses or selling directly to the public.

'Consistent and verifiable all Ireland deer density records database'. Whatever the chances of recording the presence of deer accurately on an all Ireland basis the chances of developing a consistent and verifiable deer density database, in a situation where densities will naturally change as habitat changes is almost non existent.

The problem with reports such as the Interagency Deer Policy Group Document of 2011, and others, is that they try to elicit results from poor and unverified data. They estimate the total Irish wild deer population of almost 300,000 animals (22410 red deer, 142460 sika, and 124390 fallow deer) based on NPWS cull returns which are possibly inaccurate.....note the numerous false returns for muntjac and the erroneous reporting of red sika hybrids as being present in most counties in the State! Not only are the numbers of animals culled probably not valid, but to guess an estimated annual cull of 8-10% (where did this figure come from?), and to make no allowance for natural mortality, makes the figures pure fantasy. Neither I, nor anybody else, can confirm how accurate or inaccurate the figure of 300,000 animals is or not, but I can say that it isn't based on science and the first job of any national deer management strategy group will be to bring science to the issue.

Some facts:

A guideline level for the annual recruitment or increase in the national deer herd (one calf per 90% of female deer over 2 years of age) will be about 30% - this will be possibly up to 40% in areas where the numbers of males are much lower than females. This latter situation is very much the rule under current deer management practices.

Any stakeholder involved with wild deer will be well aware that in many parts of the country that deer numbers have fallen in the last 2-3 years, mainly due to the illegal taking of deer at night. For numbers to have fallen it is quite obvious that the total mortality rate, at least in these areas, must have been in excess of 40% annually.

Allowing for natural mortality (predation of neonates, fence losses, road traffic collisions and weather in 2010) it is clear that the '*estimated annual take-off of 8-10%*' as mentioned in the text is a gross underestimate, even allowing for the fact that many animals are shot and not recovered by deer hunters and therefore never recorded in a deer cull return. A survey of hunter kill rate against carcass recovery rate would be very useful.

If the guesstimate of the national deer population from cull returns was made on a more realistic take off figure it might give a national deer population of less than 100,000 animals!

In short nobody has a clue how many wild deer we have in Ireland, but for the InterAgency Group to publish a figure of 300,000 animals is likely a gross exaggeration.

In my opinion there are several problems with the NPWS's current method of collecting national deer cull data – making a cull return with the following year's deer hunting licence application. Data is collected far too late in the year, long after the end of the open season. However most deer hunters keep no record of their hunting success and fill in their cull returns purely from memory, anecdotally returning balanced male/female ratios whether accurate or not because 'it is what is expected'. Calves are often returned as females. Other problems encountered are the fact that there is no defined period over which the return is relevant. There are an ever increasing number of animals killed under Section 42 licences, often at night, and if they are included in cull returns it is unclear as to what year they pertain – the closed season prior to that season's data collection or the year afterwards? Finally many hunters include park deer in their cull return.

The following are some of the recommendations I made at the National Deer Conference in April 2011.

- Cull return submissions should require details on each animal killed, including the date of killing and mode of disposal, either for home consumption, sold to a game handling establishment or killed but not recovered.
- NPWS cull declarations should be for males, females and juveniles. This should help reduce over reporting of antlerless juvenile deer as females.
- Consideration should be given to online cull returns which would allow reporting soon after killing. Place of killing could be grid referenced. This would allow easier data analysis.
- Hunter organisations should train hunters in proper cull recording.

- Elimination of hunter classification of hybrids, use phenotypic classification. If a hybrid deer looks like a red deer it should be classified as such, or conversely if it looks like a sika it should be recorded as a sika.
- Separate cull returns made for animals killed under Section 42 licences. This needs to be enforced.
- Figures should be analysed by NPWS or an outside agency to correlate against animals passing through GHEs to help verify figures and establish regional trends. Auditing should take place on random individual returns to assess the validity of the data collected.
- There should be a compulsory tagging system for all deer carcasses at the point of killing. In discussions I have had with both DAFM and FSAI, both organisations would be in favour of this for reasons of both animal health and food safety traceability and would be keen to work with NPWS on a universal tag which would suit all. These tags could be printed with the hunter's deer hunting licence number (which would remain constant year after year) and a sequential carcass number. This carcass tag number would be entered on the end of year cull return or possibly in a seasonal log book (see below). It would be illegal to possess an untagged carcass, and help control poaching by linking every deer carcass to a licenced hunter.
- There should be mandatory cull returns, to be submitted by a date one month following the end of the open season. There is a precedent for this in the issuing of salmon licences by the regional fisheries boards. In this case anglers are issued with tags and log books to record catches (even of released fish). These log books are filled in by the anglers as they go through the season. Logbooks and unused tags must be returned in an envelope provided by October 19th (soon after then end of the season). The onus is on the angler - whether successful in catching a salmon or not - to return these and hold a proof of posting for at least 12 months or be subjected to a heavy fine. Full details are available on salmonlicences.ie.

Funding of a NDMS:

It has been proposed that a NDMS be funded by a charge on the currently freely provided deer hunting licences. In the USA their Fish and Game Departments are funded entirely by hunters, and as their only paying customers their remit is to provide deer and other game in sufficient numbers for hunters under a tightly regulated harvest system. The NPWS in Ireland, who would collect these deer hunting licence fees, would have a much more holistic view of deer management and the environment rather than just the provision of deer to hunt. The funding of a NDMS in this way, particularly if such a strategy were to move in such a way that would be seen to conflict with the interests of hunters, would likely lead to conflict. I am not sure that the deer hunting organisations have thought this through.