SIKA DEER

Source: **WILD DEER MANAGEMENT IN IRELAND: STALKER TRAINING MANUAL** (2005) by Liam M. Nolan & James T. Walsh (LINK TO STALKER TRAINING MANUAL)

In 1860 the seventh Lord Powerscourt introduced Japanese sika deer, *Cervus nippon Nippon*, to his estate near Enniskerry in Co Wicklow. From there they have spread around these islands, the process of which was described by Powerscourt himself:

> *'I bought one male and three females of this species from Jamrach, and my herd increased so much that I sold and gave away some, in the first place to the late Mr Herbert of Muckross, Killarney, and afterwards to Sir Croker Barrington at Glenstal, near Limerick: Sir Victor Brooke at Colebrooke, Co Fermanagh, from whence they have spread to the Duke of Abercorn's woods at Baronscourt, Lord Dartrey's place in Co Monaghan and other places in the north of Ireland.'*

Sika deer are indigenous to eastern Asia, the Japanese islands, Taiwan and the mainland from Manchuria down to Vietnam. In fact the word '*sika*' is Japanese for *deer*.

Sika stag with hinds, Killarney

In total there are fourteen separate subspecies. There are six of these subspecies on the Japanese islands. What we call Japanese sika are thought to be the subspecies found on Kyushu Island in Japan, first identified by Temninck in 1838.

One of the differences between the subspecies found on the Japanese islands and the others is that they have black velvet on their growing antlers, the other sika subspecies,

such as Manchurian and Formosan sika common in some deer parks in the UK, all have red velvet antler. There are other differences in size and coat colouration.

There are three distinct populations of sika in Ireland.

Co. Wicklow

These deer, which originated in Powerscourt, spread slowly at first through the mountains of north Wicklow, when the park fence fell into disrepair. In 1934 Dr Peter Delap, writing in *The Irish Naturalist's Journal*, reported that there some 500-600 sika in the deer park at Powerscourt and a small group of about 50 deer living in the hills around Djouce, but that at that time, sika were not yet evident elsewhere outside Powerscourt. However it was when the State forestry plantations of the then Department of Lands were initiated that sika started to spread south and westwards.

They have at this stage reached very high densities in the Wicklow area, numbering an estimated 10-15,000 animals. They have spread to most of the counties of south Leinster including Dublin, Kildare, Carlow and Kilkenny – spreading relatively quickly where there are areas of interconnecting forestry.

Sika stag bedded down in brambles

Hybridisation with red deer is endemic in this population. Whereas the upland open hill deer in the county still show remarkable variation in hybrid characteristics, this is not so in the sika-type deer of the forestry plantations and in particular those animals on the edge of the expanding range. These animals are almost exclusively sika-like, having very few of the characteristics of red deer. While they look like pure Japanese sika they are not. They have a much larger body size and proportionately bigger antlers. There is an apparent tendency for sika genes to dominate where hybridisation occurs.

Red deer at left, sika deer at right. Antler of hybrid deer at centre, showing shared characteristics of red and sika

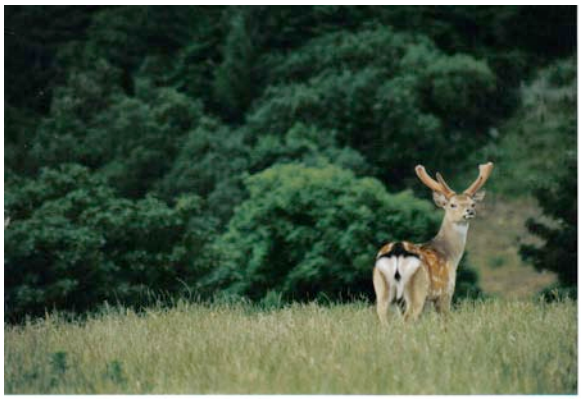
Co. Kerry

A stag and two hinds were introduced from Powerscourt to the Kenmare estate in 1865, where they rapidly increased in numbers. Further sika were introduced in the 1890s (two stags and five hinds from the Lansdowne Estate in Scotland, progeny from stock that originated from Powerscourt). They have now spread throughout Kerry and into many forests throughout west Cork.

The Co. Kerry sika are of importance because they are believed to be of 'pure' Japanese blood, having been moved from Wicklow before hybridization occurred there. With most of the sika worldwide showing signs of cross-breeding between red deer and other sika deer subspecies, the Co. Kerry Japanese sika may be of international significance. These sika deer are heavily shot within the boundaries of Killarney National Park, the main red deer range, to reduce the risk of hybridization.

Co.'s Tyrone/Fermanagh

Sika were first introduced to Colebrooke Park in Co. Fermanagh in 1870, where they were kept alongside a pre-existing herd of red deer. A number of hybrids of the two species were observed in the Park in 1885 and 1887. About 20 years later, some of the Colebrooke sika were moved to Baronscourt in Co. Tyrone, where they were kept in an enclosure. Both Parks are long since disbanded but the deer now range widely over Tyrone and south Fermanagh. There were definite hybrids noted in the wild sika population in 1973 when a male red deer from Donegal lived amongst the sika for three years.



Characteristic rump patch of sika deer, seen here in summer coat

Other areas

Sika deer are increasing in numbers and extending at the edge of their range. Stags wander furthest and are first to colonize new areas of forestry, often with regular disturbance hastening their spread. However there are reports of sika deer occurring in Galway, Mayo and Tipperary, unlikely to have occurred by natural expansion, suggesting human assistance at some level.

Sika Deer Male: Stag
Sika Deer Female: Hind
Sika Deer Young: Calf

Japanese sika deer are the smallest of our three deer species, with a marked difference in coat colour between summer and winter. There are also marked coat differences in the various degrees of hybridization between sika and red deer. In this chapter all details relate to pure Japanese sika unless otherwise stated.

The summer coat is chestnut brown with white spots. In areas where the two species are found together it is sometimes possible to confuse sika with common coloured fallow deer. Sika have erectile hairs on their white caudal patch. When alarmed, this patch of hair will flare to two or three times its normal size. This is an alarm mechanism to alert other deer in the group to a potential threat. This white caudal disc is surrounded by black hairs but unlike the cream caudal disc of red deer, it does not run up onto the rump. The tail is relatively short compared with fallow deer.

Sika hind and calf. The erectile hairs have flared on the calf's rump patch, causing the surrounding black hairs to disappear

In September, sika moult from summer to winter coat. The moulting process starts on the neck and appears to work back along the flanks. This is because of the longer winter hair on the neck. Both hinds and stags are grey in the winter. The stag's coat is slightly darker but their wallowing habits at this time of year make them appear almost black in colour. The dark mane present in males during the rut is not as prominent as in the red deer stag because the hairs are proportionally shorter and the rest of the body is dark and so it is not as evident. The sika stag has a distinctive 'V' shape to the forehead, formed by lighter-coloured hair on the forehead. Males and females have distinctive rounded ears which differentiate them from the two other Irish deer species. The species also has a distinctive white colouration to the hair covering the metatarsal glands.

Caudal patches and prominent metatarsal gland hairs, characteristic of sika deer

Stags are compact in build, with heavy shoulders. The typical mature sika stag has an eight point head, four points on either antler. Brow tines are upright rather than at right angles to the main beam, as with red deer. Whereas feeding has an important part to play in the size of antlers, genetics are important. The heads of Wicklow sika tend to be stronger and heavier than sika elsewhere, perhaps reflecting presence of red deer genes. Wicklow heads develop from six to eight points at an earlier age than, for example, the sika of Co Kerry, where a six point head is regarded as the norm and more typical of 'pure' sika deer.

Japanese sika deer in Killarney (summer coat). Note velvet on growing antlers

The other factor determining antler size is age. With increased culling, antler quality has declined markedly in some areas of Wicklow. Traditional, stalkers have focussed on shooting male deer, facilitated by a longer season and more clement weather conditions. Male deer therefore lack the time and opportunity to achieve maturity and to develop antler quality. More emphasis must be given to culling females. Such a switch of emphasis facilitates better overall control of numbers while giving males time to mature and to develop the desired antler quality.

Antlers are cast at the end of March, long before which the stags will have banded together into summer groups.

Sika stag: Shoulder height 0.9 metres. Weight 65kg
Sika hind: Shoulder height 0.8 metres. Weight 45kg

Sika calves are born from late May onwards. In general there is quite a spread over the calving period. Newborn calves can frequently be found from September into October. Whereas most sika hinds come into heat in the October of their second year and calve at two years of age, studies in the UK have proven exceptional fertility amongst sika hinds. Pregnancy rates have been demonstrated at 90% in adult females, 80% in yearling

females and 12% in calves. For calves to become pregnant they must attain a critical weight and are unlikely to reach that before late winter. An October born calf would have been conceived in February. With early-stage pregnancies difficult to detect by the average stalker and the end of the season being the end of February, these calf pregnancies often go unnoticed.

Twinning is rare and difficult to prove as a hind can feed two calves but that does not mean that both were born to her. There have however been several reports of twin foetuses in the Co. Wicklow area.

Although very rare in Irish deer species, twinning can occur, as evidenced by these twin foetuses from a sika hind

The calves are born with a spotted coat not unlike that of the red calf, which they lose with the onset of autumn. They suckle for at least sixteen weeks and while they should be self-sufficient by November with the opening of the hind culling season, research suggests that calves deprived of their mother at any time between early life and spring of the following year are unlikely to survive. Stalkers should always endeavour to shoot the calf before shooting any accompanying hind.

Sika hind in summer coat

Traditionally sika deer were thought to have a preference for areas of acid soil type - such as heather uplands, coniferous forests and rhododendron thickets - but they are extremely adaptable and do well in almost any habitat. Like all our deer species they are basically grazers but will browse as well. Thicket areas of conifer forest are most likely to be colonized. They do most of their damage on newly planted ground but actually spend relatively little time in these areas.

In areas where there is little available feeding, particularly in the winter and the spring, and disturbance levels are high, they are responsible for severe browsing damage to young trees and for bark stripping in semi-mature plantations. Bole scoring, the ripping off of bark with antlers, a common trait of sika deer in the UK, is relatively rare in Ireland but it does occur.

The sika rut is the same as that for red deer, from the end of September to the beginning of November. Stags can be very aggressive, chasing and fighting other stags and thrashing vegetation, though immature males are tolerated in a territory. This aggressive nature often results in broken antlers. This is particularly evident in some areas such as Co. Kerry, where there may be an added problem of poor mineralisation of antlers.

Mature stags have definite rutting areas. They regularly patrol these territories, wallowing in boggy areas, scraping with their feet and thrashing small trees in the general areas. Sika in hill or moorland areas often adopt mating behaviour more often associated with red deer, in that they collect hinds and try to hold them in a harem. They increase their scenting of the area by urinating into their wallows. When the hinds come into season the stag will sniff her vulva and lick her urine.

Sika stag prepares to mount a hind in Killarney National Park

The sika stag makes a characteristic triple whistle sound during the rut, but occasionally the number may vary. One stag whistling very often stimulates another to whistle nearby. This vocal activity is primarily from dusk to just after dawn, but in the peak of the rut it may continue all day. Whistling frequency increases when the weather is cold. The rutting whistle of the sika stag can be heard from the end of August, long before any hinds come into season. Stags also make a low mewing sound during the rut, though this will only be heard when the stalker is quite close. Sika stags constantly scent-mark their territories.

Sika stag in winter coat