

Britain and the Beasts of Prey

Report of a Symposium

At a one-day symposium in London in March, naturalists, foresters, agriculturists, sportsmen and others discussed the role in the British countryside of the fox, badger, stoat, weasel, pine marten, polecat, wild cat, otter and the recently introduced and rapidly increasing mink. It was unanimously agreed that the badger was an almost wholly beneficial animal and that gassing which is now illegal should not be legalised. From the discussions it emerged that no British predatory mammal was in serious danger, apart from the otter in Ireland, thanks to greater knowledge, increasing tolerance of predators and willingness to listen to scientific opinion.

A ONE-DAY conference on the place of predatory mammals in the British countryside, was held in the Linnean Society's rooms at Burlington House in London on March 25, and attended by representatives of 18 organisations covering such diverse interests as wildlife conservation, landowners, sport and gamekeepers, agriculture and forestry. The conference was held at the suggestion of the Fauna Preservation Society, organised by the Council for Nature, and sponsored by these two bodies together with the Society for the Promotion of Nature Reserves. Under the able chairmanship of Lord Porchester, Chairman of the Game Research Association, there was much useful discussion and a remarkable measure of agreement. At the end of the day six resolutions were passed unanimously:

1. That the Fauna Preservation Society, the Council for Nature, the Game Research Association and the British Field Sports Society be invited to prepare a pamphlet incorporating a code of behaviour for mammalian predator control.
2. That the Minister of Agriculture, Fisheries and Food and the Secretary of State for Scotland be asked to look into the control of the use of strychnine, cyanide gas and other poisons in vertebrate pest control.
3. That it would be undesirable to legalise the gassing of badgers.
4. That no introduction or reintroduction of mammalian predators be encouraged.
5. That increased research is urgently needed on the population, ecology, and control of mammalian predators.
6. That these recommendations be drawn to the attention of the second conference on "The Countryside in 1970", to be held in London in November 1965.

The conference discussed the impact of predators on three main aspects of the countryside: forestry, agriculture and game. But rather special treatment was given to the badger, partly due to the sympathy and interest that the badger arouses, and partly to the recent attempt of Mr F. A. Burden, M.P., to introduce a bill to legalise gassing.

Gassing, said Dr. Ernest Neal, was a highly dangerous and over efficient weapon in that it could quite easily eliminate badgers over large areas. It was perfectly easy systematically to gas every set, and although it was illegal it was dangerously easy for anyone gassing rabbits to include badgers "by mistake". Since 1914 and until about 10 years ago, he said, badgers had been increasing in this country, but since then, and especially in the last three years, they had decreased quite seriously in some areas, due he thought to four comparatively new factors, of which gassing was one. Another was heavy traffic on the roads and the electrification of railways. In Somerset and Dorset a badger was killed on the roads every two or three days, and there was no doubt that the number killed every year on the roads over the whole of Britain reached four figures. The railway toll was also high: when the railway from Ashford to Dover in Kent was electrified between 60 and 70 badgers were killed in a short time, and on one mile of railway in Hampshire 17 badgers were killed during a special watch of 15 months.

Another pressure on the badger was increasingly effective keeping with the increase in shooting syndicates in recent years, and while keepers' attitudes varied there was undoubtedly a great deal of automatic killing of badgers on shooting land. Finally, the destruction of their habitat affected badgers like all other animals. In addition to the loss of land for housing and industry, there was the changeover from deciduous woodland to conifers in forestry plantations—and badgers infinitely preferred deciduous woodland for the cover.

On the credit side for the badger there was the enlightened attitude of the Forestry Commission, whose Wildlife Officer, Mr P. F. Garthwaite, stated specifically that in woodland "the badger is entirely beneficial in its feeding habits. In addition to many insect and mammal pests of trees, it seeks out and destroys many wasps' nests, which are the bane of the weeding party's life in a young plantation". The Commission found something like four wasps' nests per acre, "and if a weeding gang puts its sickle into even one of these they know all about it". Mr. Christopher Cadbury, President of the SPNR, pointed to the value of badgers in this respect in a fruit area.

The chief difficulty with badgers in forestry plantations hitherto, said Mr. Garthwaite, had been their habit of making holes in fences that crossed their tracks. Now that the technique of training the badgers to use badger gates in fences had been learned, "the one barrier to the forester's complete friendship has been lifted". On the question of badgers killing poultry and game, Mr. Garthwaite said he had had no reports in recent years of badgers from Forestry Commission land harming either, and shooting tenants were not permitted to molest badgers. Mr. Neal also thought that poultry and game-killing by badgers was insignificant, and corn losses were small, though one speaker, Mr. Barker, described the losses of a farmer on Old Winchester Hill in Hampshire, where nine badgers had destroyed 20 cwt. of wheat in a 30-acre field (with a yield of roughly

30 cwt. to the acre). He said that his work on the badger's diet showed that eggs and birds in the nesting season formed a very small part of their diet, about 5-6 per cent.

It was generally agreed that the case for protecting the badger was very strong. As Mr. Neal said, the vast majority did no harm to man whatever, and a lot of good by destroying pests, but at the same time it was necessary to have some control measures available to deal with the occasional badger that raided hen-houses, or the set that threatened to undermine a road or railway, or cause a landslide. Several speakers pointed out that it was perfectly possible to dig out a badger set humanely and transfer the occupants elsewhere, and for this reason badger digging should not be made illegal. Taxed with the question of the best way of getting rid of the rogue badger, Dr. Neal advised live trapping where possible and shooting, which was selective and ensured that the right animal was killed. Research was now being done on the most suitable trap for badgers, which are immensely strong animals, fiercely resentful of being trapped, and quite capable of smashing up most traps. Digging he thought was effective if carried out in the right way and obeying the right rules. Col. Floyd emphasised the great cruelty of wire snares for such a tough-skinned animal and the fearful injuries that snares could inflict.

The Stoat and Weasel are Valuable Allies

Turning to other predatory mammals, Mr. Garthwaite said that in forests "the majority do no significant damage to trees. In conjunction with predatory birds and other factors they help to maintain the health of the forest by balancing surplus population of pest species which, in the absence of predation, could reach damaging numbers more often than they do". The forester had to consider the effect of the predators on farming and sporting interests in and around the forest area, but with the great advances in knowledge of animal population dynamics and predator/prey relationships there was a growing realisation that the indiscriminate slaughter of predators is against man's best interests. The Forestry Commission was evolving a long term policy designed to maintain, as far as possible, a balanced wildlife population in which only the unquestionably undesirable elements were removed. In a stable community nearly all the mammalian predators would play a part. The stoat and weasel were the forester's most valuable allies in checking surplus rodent populations—rabbits, rats, mice and voles—and needed only some local control near game-rearing pens and where poultry farms adjoin forest land. The hedgehog fed on a number of pest species. Pine marten, polecat and polecat-ferret were protected in all forests, and the wild cat was controlled only if predation of lambs was proved. Mink, rat and grey squirrel were all controlled, the mink and rat totally, the grey squirrel in vulnerable areas in spring and early summer.

Two points made by Mr. Garthwaite were taken up by Mr. Richard Fitter, Hon. Secretary of the FPS: first, that no species of

animal should be molested unless there were good reasons for doing so, and then only to the extent and for the period needed to achieve the objects of the interference; and second, that the use of the word "vermin" be discontinued—"it is an imprecise term capable of many interpretations and traditionally includes species now fully protected by law". Mr. Gouldsbury of the Gamekeepers' Association thought that the word had already fallen out of use; others disagreed, but all agreed that it should be dropped, and great care was taken in the discussion, not always successfully, to avoid it.

Mr. Max Nicholson, Director General of the Nature Conservancy, raised the importance of all Crown land being managed, as regards wildlife, on the same principles. Hitherto huge blocks of Crown land—the Forestry Commission owned $2\frac{1}{2}$ million acres, the Nature Conservancy $2\frac{1}{2}$, and so on—had been managed on different principles particularly as regards predators. As a result of discussions provoked by the first 1970 Conference, three criteria had now been established: first, that all land held by the Crown should be subject to approximately the same practice as regards wildlife management; second, that the practice should be stated coherently so that it could be explained; third, that the practice should be continuously adjusted to the latest scientific knowledge.

On the question of mammalian predators and agriculture, Mr. H. V. Thompson, head of the Ministry of Agriculture's Land Pests and Birds Research Department, stated that the only predator that needed to be continuously controlled was the introduced mink, whose potential damage both to poultry and fisheries was considerable. Mink, which now come under the provisions of the Destructive Imported Animals Act, 1932, were now established in West Wales, on Dartmoor, in Hampshire, Wiltshire and Dorset, and on the River Wyre in Lancashire. In Scotland they were in the counties of Aberdeen, Banff, Berwick, Kirkcudbright, Midlothian, Perth, Roxburgh, Selkirk and Stirling, and the chances of their being exterminated were very small. Of the other predators, from the agricultural point of view the fox needed to be controlled frequently; this was done by the hunts and by Fox Destruction Societies, of which there are now 185 in England and Wales, 137 of them in Wales. The wild cat needed to be controlled occasionally, the badger rarely. Stoats and weasels were in no way inimical to agriculture. Col. Floyd said the changes in agricultural practice had had considerable effects on predators, especially foxes. Barley growing had increased and barley fields were less attractive to foxes than wheat and oats; on the other hand kale growing had increased greatly, harbouring a large population of black slugs in the autumn, and providing a comparatively new habitat for foxes. Professor Hewer pointed out that little is known about the breeding biology of the fox in Britain, so that for the Handbook of British Mammals, published in 1964, the breeding biology of the American red fox had to be used. Mr. Thompson said that the Ministry of Agriculture had plans for a long-term study to be done in Wales.

Colonel Floyd, Chairman of the Council for Nature's Conservation Committee, drew attention to the fact that poisons such as strychnine were all too often, and quite illegally, left lying about the countryside, and there was general agreement, which found expression in resolution number 2 at the end of the day, that the law should be enforced. He quoted the case of a farmer who had put strychnine in the after-birth of a cow and left it on a hedge where a fox would get a lethal dose in one bite (left on the ground the fox would be more cautious); this farmer had poisoned his own retriever. Mr. Thompson said that used correctly and only for moles (for which it is legal) strychnine raised few difficulties. Dr. Ashby of Durham University suggested that violent poisons should only be used by the employee of a Ministry or other agent who could be held responsible.

Predators and Game Stock

On the impact of mammal predators on game there was less agreement, the chief protagonists being Dr. David Jenkins, principal scientific officer of the Unit of Grouse and Moorland Ecology of the Nature Conservancy, and Mr. A. D. Middleton and the scientists of the Game Research Association and the Eley Game Advisory Service. A distinction had to be drawn between lowland and moorland game, and on the latter it was agreed that predation was not important. It was also agreed that winter predation was unimportant for both lowland and moorland game. On lowland shoots, where hedgerow nests were much more vulnerable to predators than isolated grouse nests scattered over a moor, Dr. Jenkins conceded that it might be difficult to build up game stocks without reducing predators but emphasised that there was no documentary evidence to prove even this. Moreover, he added, "research on lowland game has given no evidence that continued and permanent attempts at the local extermination of all predators are necessary to maintain game stocks once these have been established. The evidence available in fact suggests that limited control measures will then suffice". On an established lowland shoot current shooting practices left a large surplus of game, and game biologists should try to find out how much predation was tolerable. Winter predation was unimportant.

Mr. Middleton agreed that winter predation was of little importance to either moorland or lowland game at normal population densities. He emphasised that control measures are in practice very limited, and produced some figures which showed how remarkably small was the annual kill of predators on kept land: e.g. in 1963, with a sample of 354 records from over one million acres of land, with approximately one keeper per 2000 acres, the numbers killed for every 1000 acres, were stoats, 4.6; weasel, 8.3; hedgehog, 8.4; rat, 51; grey squirrel, 28. Mr. T. H. Blank, of the Eley Game Advisory Service, said that on all the estates for which they had carefully kept records over a large number of years, there appeared to have been no permanent reduction of mammalian predators, and he thought that this held good for all

estates. Mr. Cadbury pointed to the importance of watching the balance of predators, and quoted a case in Lincolnshire where a heavy destruction of predators, especially predatory birds, was followed by a big increase of rats, resulting in far greater damage than the predators could have inflicted. All agreed that the real need was for more research.

Reasons for the Otter's Decline

Of the effect of the otter on fisheries, Mr. Fitter suggested that there was no case for its control. Mr. Mills, of the Scientific Department of the Ministry of Agriculture, said that although otters undoubtedly ate salmon, few people believed that controlling otters would increase the fish population, and emphasised the need for more research on the biology of the otter, particularly on population density, nothing having been done on this predator since the Otter Report of 1957. Mr. Maxwell Knight, speaking as a fisherman, thought sportsmen were far too greedy, and quoted the river keeper who said that if an otter killed four decent sized pike in a year he was entitled to as many trout as he could catch. Moreover, otters took eels, for which fishermen who knew what eels could do to fish spawn, were more than thankful. Captain Wallace, Masters of Otter Hounds Association, said that otters had decreased in English rivers, one cause being the cleaning out of rivers which destroyed their holts. It was also possible that toxic chemicals affected their breeding. Dr. Jenkins pointed out that otter skins were valuable—of the order of £3 each in winter, and nearly every keeper near a stream in the Highlands trapped them regularly.

In Ireland, said Mr. C. N. Connolly of the Eire Department of Lands, the otter's position was critical thanks to commercial trapping "which presupposes a market for otter pelts". Where the market was he did not know. This was the only case quoted throughout the discussions of a predator that seemed in danger of extinction.

Summing up the day's discussions, Mr. Max Nicholson suggested that what had emerged was that, apart from the otter in Ireland, there was no real emergency in the sense that any predator was faced with extinction. He thought that changing attitudes, greater attention to scientific opinion and increasing tolerance of predators were making themselves felt, and it was inevitable that changes in land use must mean changes for the wildlife. One danger he feared was that of piecemeal legislation. "We are in danger of getting a Badger Act, having got a Grey Seals Act, and then perhaps going on to a Harvest Mouse Act and a Hedgehog Act and so on". He suggested that what should be aimed at was some kind of comprehensive legislation, establishing a legal status for wild animals, as there was for wild birds, but with a very flexible provision by order, both as regards the species that were brought in and the times at which they were protected, and above all on the question of not making unnecessary hard cases by making it illegal to kill off individuals which are demonstrably doing damage.



Plate 1

John Markham

A BADGER EMERGES FROM ITS SET

At the recent symposium in London on British predatory mammals, foresters, naturalists and sportsmen agreed that the badger was a wholly beneficial animal.



**BRITISH
MAMMAL
PREDATORS**

Plates 2 and 3 left

Above: Otter
Oliver Pike

Below: Polecat
John Markham

Plate 4, right:
Pine Marten
John Markham

Plate 5, below:
**Mink, a new
British predator**
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Plates 6 and 7. Left: Drugged and roped to a wooden tray for loading on to the lorry. Right: Relaxed and recovering in the boma.

CAPTURE AND RELEASE

Plate 8. Released: one of the six rhinos released in the Murchison Falls National Park, Uganda, in 1961, photographed three years later.

