

USING WILDLIFE

One kind of medieval wood pasture fed not domestic cows, pigs, or sheep, but game animals, deer and boar. Some woodland habitats supported fur-bearers: squirrel, beaver, water rat, wild cats of several kinds, mustelids (the weasel family), fox, wolf, and bear. All these living things had their uses for medieval society, too. Terrestrial hunting was in medieval times relatively unimportant for subsistence purposes. Wildlife did not by and large serve human dietary needs. On twenty-six long-inhabited archaeological sites in northern France dating from the thirteenth century through to the seventeenth, for instance, game animals provided but 2 per cent of the food bones at secular elite locations (lord's houses, castles) and less than 0.5 per cent everywhere else (towns, monasteries, peasant villages). With the

possible exception of wild birds taken en masse for urban commercial markets ('four and twenty blackbirds baked in a pie' is not just a children's song), most people rarely hunted for food. But hunting in medieval Europe had immense cultural importance. It was a key part of elite leisure and served to demonstrate superior social status. Hunting also had interesting significance as a luxury economic enterprise supplying fur garments for personal use and, again, visible claim to elevated social rank. Both the hunt and furs made animals signs of something else.

Western European woodlands were large enough that fur-bearers from them seem important into the twelfth century. In particular, early medieval records from self-sufficient estate economies – Carolingian rulers, some of the big ninth- and tenth-century monasteries – report huntsmen and local acquisition of furs. But inexorably, through central medieval centuries up to the twelfth, overhunting and habitat destruction in the form of the great clearances had damaging effects on wildlife populations. Western fur-bearers were depleted or extirpated. By the high and later Middle Ages a beaver was but vaguely known to most western European naturalists, as their confused descriptions signal. Wild cats disappeared, and so, too, did most animals larger than the smaller weasels from all but the most remote and rough uplands in the west.

The luxury fur trade shifted to the eastern Baltic, which became Europe's source for the largest quantity of furs, mostly squirrel skins, which Hanseatic merchants packed 40,000 to the standard cask and shipped west to be worked up in the Low Countries or Venice into garments for middling or lesser nobles. Northern Russia and Scandinavia supplied fashionably rich and dark furs from various members of the weasel family (sable, marten, etc.).

The west itself substituted domestic use of an introduced animal, the rabbit. Rabbits are native to North Africa and the Romans had introduced them to Iberia. By the 1100s rabbits were present in France and by the 1200s had been brought to the Low Countries and England. Around 1500 they were crossing the Vistula in Poland and had arrived on the plains of Hungary. The first medieval European rabbits were reared in protected 'warrens'. Fearing for these fragile little habitual burrowers, their keepers in the damp north put them on dry sandy soils or built them a light earthen mound for protection (see frontispiece). When needed, the rabbits were dug out, killed for the tender meat, and the skins used to line garments of lesser, but

still well-off folk, especially townspeople. Rabbit provided an alternative to fur from feral domestic cats. Meanwhile the rabbits, having adapted ever more successfully to their new habitats, themselves went feral and spread all over the continent. At the same time the native member of the related family, the European hare, seems to have dwindled and in some areas disappeared. Good comparative zooarchaeological evidence from a wide sample of medieval sites shows hare remains diminishing in proportion to rising numbers of rabbits.

Elite infatuation with the hunt as recreation and display of status from Carolingian times motivated royal creation of special privileged jurisdictions called 'forests' (*forestis*). A medieval forest was no woodland, but a legally protected area managed for game. Forests – the first documentary mention comes from the seventh century – were established on Germanic precedents by late Merovingian and Carolingian monarchs, for whom hunting was a favoured pastime and a manifestation of their royal power. The term and concept were carried across the continent in Carolingian times and into Britain by Norman conquerors. Following on the model of the royal forests, later aristocrats created private parks for the same purpose. In forests and parks hunting held priority over other forms of land use. While other activities might be permitted, even frequent, they were always meant to defer to the needs of the hunt. Institutional features of the later medieval evolution from royal hunting preserves to state regulation of woodlands are discussed in chapter 7 below.

The prototypical medieval forest or park was a distinctive sort of managed landscape, not wilderness but more a pasture growing game rather than livestock. Its vegetation (*vert*) was meant to feed the game (*venison*), mainly deer and, on the continent, wild boar, and its landscape was shaped to facilitate the hunt. An illustration from the personal hunting book made in the 1380s for Gaston Phoebus, count of Foix, shows him riding to hunt the stag through a landscape of scattered trees and small groves, relatively sparse woodland now often designated 'parkland' (Figure 5.5). The mounted hunters could see and pursue the quarry and also be seen and admired by spectators.

The hunt was a ceremonial social act of display, initially by the prince, always by the great man. Surrounded by his huntsmen, his dogs, and his retinue of lesser nobles, the lord demonstrated through elaborate and bloody social ritual his identity, superiority, and prestige. Other hunts were undertaken by the prince's huntsmen and forest-keepers in obedience to his orders to harvest his deer for a great



Figure 5.5 The count of Foix hunts the stag in 'parkland', late fourteenth century

feast. Correspondence of the English royal court from the fourteenth century contains precisely such instructions to servitors at northern forests, where the king himself rarely appeared, to ship large quantities of venison for events planned at Windsor Castle. The forest was thus a managed game preserve used for the production and hunting of semi-wild animals.

The environmental effects of medieval forests and parks were, on the one hand, protective of the wild: certain habitats were retained and consumptive use of wildlife regulated by severe penalties against illegitimate taking. The effects were also destructive in several ways. Concentrations of game animals modified plant succession just as did herds of livestock. Management and pursuit of animals for trophy kills meant no concern for expending more energy than the quarry would yield. In this way the hunter did not behave as a natural predator must and pursue the most numerous accessible prey, but might rather select and chase rare animals to the point of extermination. Such prized game as bear, wolf, and wild pig were extirpated from the British Isles by the end of the Middle Ages. The last individual specimen of the great native European wild ox, the aurochs, was killed by a known noble hunter in Poland in 1637.

Medieval hunting also entailed purposeful environmental modification. Interest in the hunt motivated medieval elites to introduce

exotic animals to Europe. Besides the rabbit, a small species of deer, the fallow deer (*Dama dama*), was also brought to Europe, probably under French noble auspices. These originated in China but European populations likely descended from an earlier transfer into Persia (also for hunting) that drew the attention of crusading aristocrats. In the thirteenth century the French crown owned several herds of fallow deer. Peasant neighbours were called out on *corvée* (forced labour) to dig ponds to water the deer, build fences to keep them protected, and plant crops for their fodder. Anglo-Norman lords brought fallow deer to Britain along with rabbits and pheasants, another animal exotic to Europe. Hunting parks, like that Count Robert of Artois famously had built at Hesdin in the 1290s, could entail wholesale environmental transformation with wooded and open sections, artificial watercourses, and other habitats tailored for native and exotic beasts.

The effects, of course, are simply the demonstrations of social power: the hunt showed off who one was. By the later Middle Ages in most parts of Europe commoners were barred from hunting and the activity reserved to nobles. Even if the social monopoly was never complete or well enforced, it still provoked conflicts on the land as, for instance, when peasants found their lord's protected deer coming out of the park to eat in their grain fields or meadows. This grievance, among others, helped trigger the German Peasants' War of 1525. English rebels in 1381 carried a dead rabbit on a pole as a standard.

Medieval Europeans used aquatic wildlife in a different cultural context from the terrestrial but the results were parallel. Water-dwelling animals, generically 'fish' in medieval classification, mattered for eating (and only marginally for recreation). This was because, from the eighth century, authorities in Christendom tried to observe and enforce a religious taboo against eating meat for about 35 per cent of the year, including the forty consecutive days of Lent before Easter and otherwise a day or two every week. But in western Christendom 'fish' were an acceptable substitute for the banned flesh of terrestrial beasts. Household accounts and food remains alike establish regular and seasonally intense fish eating by those people who could bear the cost. For the poor who could little afford meat, fish posed no problem; they rarely had either. But, regular eaters of much meat, medieval elites assuaged their resentful abstention by reluctantly taking fish rather than going wholly without. The result was the fairly heavy exploitation of local aquatic ecosystems everywhere, both freshwater

and inshore saltwater, for immediate consumption or short-term preservation. Fast smoking or salting could keep freshly caught fish good enough to eat for a few weeks, but the poor selection and quality of fish available by the end of Lent was proverbial. Peasants seeking their own subsistence did some of the work of fishing, but probably a larger share was by full-time fishers who historically began serving their lords but soon were fishing for markets as well.

Rising European populations, the now-familiar pattern of clearance and soil erosion, and the rapid urbanization to be examined in chapter 6 all had the unintended consequence of driving depletion and destruction of limited natural inland fish populations. Almost as soon as references to fish prices appear in mid-twelfth-century documents, their upward movement reveals imbalance between supply and demand. Fishing pressure is shown, too, in the shrinking size of favourite varieties recovered from archaeological sites of long-term consumption. In kitchen middens along the southern shore of the Baltic, for example, early medieval sturgeon were of great size, those of the twelfth century much smaller, and the species nearly disappeared thereafter. Some local runs of salmon and sturgeon were extirpated from the twelfth century onwards.

Europeans responded to what they perceived as shortages of familiar foods. Fisheries which had once been more or less common or open were increasingly privatized, brought under the firm control of lords who then leased access at market rates to commercial fishers. The market sector expanded to distribute fish to those who had the wherewithal to buy. Rulers who claimed authority over large bodies of water (big rivers and western Europe's few large inland lakes) began to regulate those fisheries. A French royal fisheries ordinance issued in 1289 aimed to preserve fish populations, limit the catch, and allocate it among various users by restricting the size of fish taken and the types of gear employed. At the same time Europeans began to expand their fisheries on marine frontiers where the pressure had to this point been slight. The expansion targeted certain abundant species that available techniques of drying, salting, and brining could preserve in bulk for later consumption elsewhere. Such fish were herring and cod in the North Sea, Baltic, and nearby parts of the North Atlantic, sardine and hake south of the British Isles and in the western Mediterranean. A major commercial fishery developed from the thirteenth century along the north coast of Sicily to catch tuna for export. Just as dried cod and brined herring spread to markets across the north, the tuna

flesh was cooked, barrelled in brine, and shipped to Florence, Rome, and other mainland cities.

The assault also targeted marine mammals, prized for their oil, tough hides, and flesh rated the best among the 'fish', as it most resembled terrestrial meats. Opportune finds or captures of beached whales and attacks on accessible seal colonies in Mediterranean, western, and sub-arctic waters became more purposeful after 1000, as Basques actively pursued whales in the Bay of Biscay and Norse and other sealers worked more systematically around the North Sea, Scandinavian coasts, and North Atlantic islands. By the end of the Middle Ages the southernmost breeding population of walrus on the Scottish North Sea coast had been extirpated and Basque and other whalers had so depleted some varieties from European waters as to move operations promptly to newly found coastal North America.

Finally the perceived shortage of fish also led to purposeful environmental modification. Twelfth-century France saw intentional construction of artificial pond structures to grow fish on landed estates and the next century their proliferation along with techniques to rear a species exotic to western Europe, the common carp. This native of the Black Sea drainages of the Balkans had recently spread from southeastern into central and western Europe. Now domesticated carp were reared especially in artificial aquaculture enterprises to provide fresh fish to inland elites, the well-off who were too far from the sea to obtain fresh marine fish. Whole headwater streams were dammed and diverted to fill ponds of eventually hundreds of hectares, creating stillwater habitats where few had previously existed and further blocking the runs of native migratory fishes. Like rabbits, carp established feral populations too.

An overview of medieval Europeans exploiting their living environment reveals common patterns of human need – which drove uses in general and each specific use, of potential destruction, of conflict over use – and of efforts to manage. At regional and local scale the diversity of Europe's natural ecosystems called for, indeed helped create, specific local knowledge and social adaptations, for all that each rested on similar principles both ecological and socio-cultural. The latter meant programmes and actions always served the interests of people with power more than they did others or the environment itself. Still the medieval colonizations of natural biological resources – from the cereal economy, through the sheep, to the coppice woods, to

the rabbits, and the fish – often retained some sense of real natural limits, even when pushing against or beyond them.

The next chapter extends the analysis to mainly inanimate elements of the environment: energy systems, metals, water, and the creation and nature of medieval urban ecosystems. How and to what effect did medieval European societies make use of their non-living surroundings?