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Fish, feather, fur and forest: Exploitation of wild animals in medieval Novgorod and its territory

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ABSTRACT

The city of Novgorod the Great in north-west Russia has been subjected to extensive excavation of its superbly preserved medieval anaerobic deposits for many decades. Situated on the River Volkhov near Lake Ilmen and surrounded by mixed boreal and deciduous woodland and seasonally flooded meadowlands, Novgorod was well-placed for the exploitation of local wild fauna and flora. It was also the focus for international trade in furs obtained from a much broader catchment area. Although its inhabitants relied heavily on domestic animals and crops for their food, evidence for the acquisition of wild resources is also provided by animal bones, plant macrofossils, birch-bark documents and other archaeological finds. Pollen analysis has also provided information about landscape history of its hinterland. Even from a limited programme of sieved sampling, it is clear that a very large number of fish bones were present in the deposits. The main taxa are cyprinids, pike and zander, whereas birch-bark documents, largely concerned with tribute, mention salmonids and sturgeon, rare amongst the excavated remains. The wild bird assemblage is dominated by various species of ducks. Other waterfowl were utilised as well as large game birds such as capercaillie. Birds of prey are also present and other remains such as jackdaws reveal the local bird life in town. Wild mammals contributed little to the Novgorodian diet: bones of hare, beaver and elk being the most frequently found. Very few bones of fur-bearing mammals were recovered. The few remains include bear claws and bones of squirrel, marten, otter, and fox, in addition to beaver. Their paucity can be explained by the fact that most would have arrived from the hunting grounds to the north as prepared pelts without bones. Evidence for the hunting for these species is provided on sites deep within the forest zone such as Minino. Most of the wild animals eaten in Novgorod itself were obtained from the land and waters of its near hinterland. The paper discusses the character of the local forest based on pollen and other evidence. Models are being developed to provide a more detailed understanding of the changes in the composition of the forest during the medieval period and the consequences this had for wildlife. The paper demonstrates the benefits of developing a multidisciplinary approach comparing urban assemblages with contemporary sites in its hinterland and further afield, to understand more fully how wild species were exploited in complex societies.

1. Introduction

Veliky Novgorod (Novgorod the Great) is a well-known and well-researched medieval city, made almost entirely of wood and with remarkable preservation of its organic remains. It was a thriving urban centre, heavily involved in production and trade, notably of furs and pelts. Increasingly the growing city was dependent on a large territory known as Novgorod Land (Fig. 1), which lay mostly to the east and northeast of the city. At its greatest extent in the 14th and 15th century, this territory was larger than modern day France (Brisbane et al., 2012: 2) and provided much of the wealth of the ruling elite, largely through the collection of tribute.

The inhabitants of Novgorod extensively exploited this territory, especially the forests, not only for raw material for building and street construction, but also for furniture, domestic and agricultural equipment, tools and other everyday items. The lands also provided fuel for heating and cooking, and fodder and pannage for animals. In addition, the wild animals of the forest were hunted and trapped mostly for their skins and furs, but also in some cases for their meat, antler and other products. Lacustrine and riverine environments were also rich in potential food resources.

Using material from Novgorod and other sites, this paper brings together the zooarchaeological evidence for the exploitation of fish,

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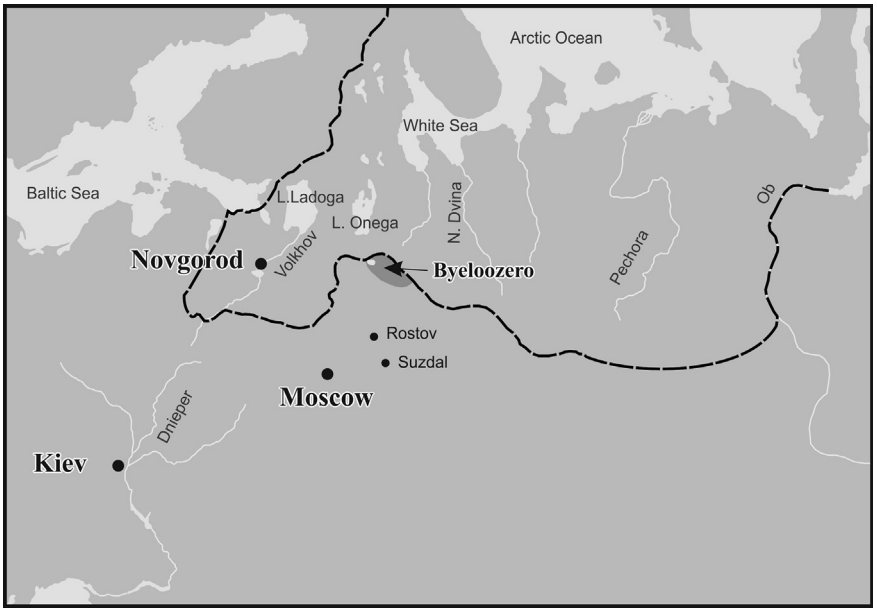

Fig. 1. Map showing the approximate area of Novgorod Land around AD 1400 including the region of Byeloozero where the site of Minino is located. After Yanin 1990, 74, with additions. Drawn by Mark Dover.

birds and wild mammals and sets them into the context of forest penetration.

2. Location, chronology and sites

Novgorod is located on the River Volkhov, approximately six km from Lake Ilmen. Lake Ilmen itself floods extensively in the springtime when it reaches its maximum extent of approx. 40 km long and 32 km wide but with a maximum depth of only 10 m. The lake's shallowness and flooding helps to create a more equitable microclimate in the Novgorod area, providing better alluvial soils and slightly raised annual temperatures (Spiridonova and Aleshinskaya, 2012: 30). This means that some species of deciduous trees are more widely found here, and that the land, when cleared, is good for growing crops. Around the lake there are a labyrinth of creeks, reed beds and water meadows.

Four main rivers (the Msta, Pola, Lovat, and Shelon) flow from the catchment into the lake but only one flows out, the Volkhov, which continues some 224 km north to Lake Ladoga. This means that the shallow lake has rapid water change and high oxygen levels, making it a very favourable habitat for a wide range of fish: today there are around 26 species (Savenskova et al., 2010).

Novgorod was founded, according to the Russian Chronicles, in AD 862 although archaeological evidence indicates that it began with tree felling and site clearance in the first half of the 10th century on low hills on either side of the Volkhov. However, it is highly likely that nearby earlier settlements started to have an impact on the forest with small-scale land clearance for farming beginning in the 8th century (Yeremeyev, 2012). These settlements were primarily located near the lakeshore and along the river valleys. They included Georgii, Prost, Vasilievskoye and Gorodishche, sometimes known as Ryurik Gorodishche (i.e. Ryurik's 'hillfort'), an important 9th and 10th century centre of trade and artisan production, as well as a military-administrative centre. Situated at the crossing of the Baltic–Volga route, the material culture from this site contains a distinctive assemblage of objects of Scandinavian origin, alongside artefacts attributable to the Slavs. The residence of the Novgorod princes was founded at Gorodishche and it continued in this role, on and off, for most of the medieval period (Nosov et al., 2005).

Around AD 1000 saw the beginning of a period of rapid urban expansion in Novgorod, with substantial population increase and the consequent greater demand on local and regional resources including those from the surrounding woodland, rivers and lakes. The town reached its greatest extent and economic influence between the 12th and 14th centuries, when it became an important *Kontor* of the Hanseatic League, housing first a Gotlanders' Court, and subsequently a German Court known as Peterhof, through which much of the town's trade with the Baltic took place (Brisbane et al., 2012).

In this paper we draw upon evidence from Novgorod itself, mainly from the Troitsky excavations in the south-west quarter of the town, and, from its immediate hinterland around Lake Ilmen, the sites of Gorodishche, Georgii and Prost (Fig. 2). As an example of a site on the edge of Novgorod Land, we also include a group of sites at Minino, which is located on Lake Kubenskoye some 500 km to the east-northeast of Novgorod (Fig. 1). A brief description of these sites follows.

Within the medieval city of Novgorod, many systematic excavations have taken place since the pioneering work of Artsikhovsky began in 1932. Well over 40 open-area excavations located on both sides of the River Volkhov have demonstrated the extent of occupation and its date from the early/mid 10th century onwards. The Troitsky excavation is one such site, located on the Cathedral (West) side of the river, immediately to the south of the kremlin area. Work began here in 1973 and continues to the present time revealing over 6000 m^2 of dense occupation to a depth of almost 5 m. Each area (large trench) of the Troitsky site has been given a Roman numeral from I to XVI. For this exercise,

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