Proc Soc Antiq Scot, 116 (1986)

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EXCAVATIONS AT KINTORE ROMAN TEMPORARY CAMP, 1984

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KINTORE ROMAN CAMP : BOTANICAL REPORT

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INTRODUCTION

Two samples from Feature C, a field oven, were submitted for examination. One contained 15 charcoal fragments, and the other contained black soil. The charcoal was examined under low to medium power magnification (x25 to x250) and identification was by reference to Clifford's table of wood anatomy characteristics (Godwin 1956, fig 1), Greguss's catalogue of photographs and diagrams (Greguss 1959), and a collection of reference material held in the Department of Botany, University of Glasgow. The soil was wet-sieved through coarse (2mm mesh) and fine (25μm) sieves, followed by examination at low magnification (x40). In addition to the identification of the charcoal fragments, several other characteristics were also recorded. Measurements of the size (in mm) were taken longitudinally (one measurement) and transversely (two measurements, perpendicular to each other), and presented below in that order. In addition to this, an estimate was made of the original wood radius, either by measuring the fragment, where the outer surface survived, or by comparing the outer surface or growth-ring curvatures with standard curves. Where a 'maximum radius' value is presented, this was the maximum radius of the original fragment, and where a 'minimum radius' is presented, this was the maximum measurable radius where the original fragment was wider. Where possible, the number of growth rings was recorded.

IDENTIFICATIONS

The charcoal sample contained the following identified charcoal.

Alnus sp (alder)

Seven fragments, comprising 3.6g total weight. The following measurements were recorded.

1 26 x 18 x 11 mm; maximum radius 9mm; c 25 rings
2 26 x 15 x 9 mm; maximum radius 15mm; > 15 rings
3 24 x 15 x 12 mm; maximum radius 15mm
4 24 x 14 x 9 mm
5 22 x 14 x 11 mm; maximum radius 7mm; > 20 rings
6,7 not measured, small.

This charcoal probably represents Alnus glutinosa, the only native alder in Britain.

Betula sp (birch)

Six fragments, comprising 2.9g total weight. The following measurements were recorded.

1 31 x 14 x 10 mm; maximum radius 7 mm
2 27 x 12 x 8 mm; maximum radius 10 mm
3 23 x 13 x 11 mm; maximum radius 16 mm
4 20 x 11 x 8 mm; maximum radius 10 mm; c 16 rings
5 16 x 12 x 12 mm
6 not measured, small.

This charcoal represents either of the two native British birches, Betula pubescens or B pendula. It was not possible to distinguish the wood of these two species with certainty (Jane 1970, 315).

Quercus sp (oak)

Two fragments, comprising 1.9g total weight. The following measurements were recorded.

1 20 x 15 x 15 mm; maximum radius 15mm; 8 rings
2 12 x 12 x 17 mm; minimum radius 22mm.

These fragments represent either of the two native British oaks, Quercus robur or Q petraea whose wood cannot be distinguished with certainty (Jane 1970, 392).

The soil sample, mostly consisting of inorganic material of silt to fine gravel size, contained an estimated 1.2% of fine charcoal. Only one fragment was large enough for detailed identification, this being a fragment of Alnus sp charcoal, with following dimensions:

13 x 8 x 4 mm; minimum radius c 40mm.

The remainder of the charcoal consisted of considerably smaller fragments, much of which resembled Alnus sp, but some of which was identified as cf Quercus sp.

In addition to these remains, one carbonized cereal caryopsis was recorded. This was an almost complete caryopsis of Avena sp (oat), 4.5 mm long and 1.5 mm in diameter. There was little indication of a deep ventral furrow, and the caryopsis was almost circular in cross section. Although this may be partly a result of carbonisation, this probably reflects the full shape of the original grain. Although the caryopsis appeared to be on the small side (cf Renfrew 1973) it probably represents either of two cultivated oats, Avena strigosa (bristle oat) or A sativa (cultivated oat). Both of these species have been found at Roman sites throughout Scotland (Jessen & Helback 1944), as well as at some Iron-Age sites (Boyd, forthcoming; C A Dickson, pers comm), and appear to have been becoming established in Scotland around this time.