Wild animals, birds and fish have been exploited by humans from the time they first settled on this island up to the present day. While animal bone analysis can determine what species were being used, it tells us little about how these animals were actually procured. Early medieval documents describe a number of techniques for hunting deer and wild pig, including chasing them with hounds, ambushing or trapping them, stunning them with a heavy log, or driving them into a net, barrier, stake or pit (Kelly 2000; pers. comm.). Physical evidence of these techniques is relatively rare on archaeological sites, but finds made during two excavations in advance of the N9/N10 Kilcullen–Waterford Scheme: Kilcullen to Carlow provided an insight into some of the hunting methods employed by the inhabitants of that area. The excavations were undertaken by Headland Archaeology Ltd on behalf of Kildare County Council and the NRA.

**Wooden artefacts from a river floodplain**

Extensive excavations were undertaken on either side of the River Lerr, near Castledermot, Co. Kildare (Illus. 1). The archaeological remains uncovered dated from as early as the...
Illus 2—Plan of the excavated features at Prumpelstown Lower (south of the River Lerr) and Woodlands West (north of the river), indicating the find-spots of the tread-trap and the spear/ spearshaft in the floodplain (Headland Archaeology Ltd).
Mesolithic period, with phases of activity continuing into the post-medieval period. Included in the excavation was part of the river floodplain, in the townland of Prumpelstown Lower. A series of wooden trackways were identified in the floodplain as well as three burnt mounds. It was also in this area that tangible evidence of hunting activity was recovered in the form of two wooden artefacts (Illus. 2).

The first was an animal trap, found at the base of a peat deposit that was 0.4 m deep (Illus. 3). It consisted of two movable oak panels (known as valves), which slotted into a rectangular oak frame with a central bevelled opening. A lattice of ‘teeth’ made from animal bone was inserted into the edges of the valves. Two horizontal holes were bored into either end of the frame and fragments of hazel rods were found within these. There were also two vertical holes at one end of the frame, with linear grooves between them (Illus. 4). These grooves appear to be the impression of some kind of rope, the purpose of which is as yet unclear, but possibilities include repairing the large crack evident on the frame or tethering the trap while it was in use.

The characteristics of this trap are typical of a group of artefacts known as tread-traps (Stephens 1996). There are 23 of these traps known in Ireland, two in Britain and at least
40 from southern Scandinavia and Central Europe (ibid.). The Irish examples are concentrated mainly in the north and west, and they occur individually except for a group of nine traps from Larkhill, Co. Fermanagh (Allingham 1896).

Tread-traps can have either one or two valves, and the Prumpelstown Lower trap is the first bivalvular trap to be discovered in Britain or Ireland. It is also the first trap found in this region with teeth inserted in the valve edges. Wooden teeth are known from Continental European examples but no other tread-trap is known to have bone teeth.

Over the years many theories have been put forward regarding the purpose and mechanism of tread-traps. A combination of experiments using models of archaeological traps (Graham-Smith 1923; Stephens 1996) and ethnographic research in Poland and Russia (Moszynski 1929) have suggested that they were set in pits in the ground and were intended to trap the leg of a passing animal. In general, tread-traps are oblong and on average 1000 mm in length, with channels and pegs used to hold flexible pieces of wood.
to spring the trap; the Prumpelstown Lower trap, however, was shorter (650 mm), rectangular and without channels.

In the case of bivalvular traps, two springs were used and the valves forced open and held apart by a tripping board (Stephens 1996). Two horizontal holes were bored into either end of the Prumpelstown Lower trap and it is suggested that these were used to hold the springs, which would have consisted of hazel rods passed through the holes across the opening in the frame. The valves were then forced open against these springs and held in place by a tripping board. The set trap is likely to have been placed in a pit with the central opening in the frame facing upwards. The leg of a passing animal, on entering the opening, would have dislodged the board and the valves would have snapped shut, trapping the animal.

While the intended quarry of this particular trap is difficult to determine, it seems likely to have been red deer. Red deer bones were the only wild animal remains identified in the floodplain deposits at Prumpelstown Lower (A Tourunen, pers. comm.). Ethnographic research found that tread-traps in Europe were predominantly used to hunt deer (Stephens 1996), though smaller mammals were also targeted. Other evidence to suggest that tread-traps were used for hunting deer in Ireland is found in the form of carvings on an early medieval grave-slab at Clonmacnoise, Co. Offaly (Munro & Gillespie 1919), and on a high cross at Banagher, Co. Offaly (Soderberg 2004), which show a deer being trapped by the hind leg in what appears to be a tread-trap.

The setting of traps of this type to catch deer may also be implied by some early medieval law-texts that refer to a pierced board (dúr toil) in association with a deer-pit (cuithhead) (Kelly 2000, 279). Water-filled cuithhead are also mentioned in the texts (ibid.). This may have served to disguise the trap close to a watering-hole and would have naturally occurred in the floodplain at Prumpelstown Lower.

A broad date range has been suggested for these traps (Stephens 1996). Pollen dating has suggested Middle Bronze Age and Iron Age dates for Scandinavian examples and a Late Bronze Age date for a trap from Drummacaladdery, Co. Donegal (Mitchell 1945, 16). More recently a Scottish example from Aberdeenshire has been radiocarbon-dated to AD 530–680 (Sheridan 2005, 21), and one of the Larkhill traps was dated to the mid-sixth century AD (Stephens 1996, 62). The Prumpelstown Lower trap has yet to be scientifically dated. Initial analysis of the woodworking technology suggests that metal tools were used to make the trap (E O’Carroll, pers. comm.).

The second wooden artefact found in the floodplain was a pointed length of yew brushwood (Illus. 5). Initial analysis of this object has suggested that it may have been a spear or a spearshaft. It measured 1,905 mm in length and was circular in cross-section with a maximum diameter of 25 mm at the pointed end, tapering to 6 mm at the other end. Branches had been trimmed along its length and the point was very finely worked (E O’Carroll, pers. comm.).
O’Carroll, pers. comm.) (Illus. 6). Two very similar pointed yew objects recovered beneath an Iron Age trackway in bogland at Edercloon, Co. Longford, have been interpreted as spearshafts (Moore 2007; 2008, 8; pers. comm.); the absence of any evidence for the hafting of a spearhead on the Prumpelstown Lower object and the fine nature of the point suggest, however, that it may have been functional in its own right. Further expert analysis will determine a date for the object and allow more definitive comment on its function.

Pit-trap

The second site where evidence of animal-trapping was identified was at Ballymount, Co. Kildare, on the edge of Narraghmore Bog. A pit-trap was located here in close proximity to several burnt mound deposits, a rectangular trough, several small pits and a sunken, circular, stone-lined feature. The pit itself measured 4.6 m east–west, 2.8 m north–south and 0.9 m. The most notable thing about this pit was that 16 stake-holes were identified on the steeply sloping sides. The inclination of the stake-holes implied that all the stakes were pointing inwards and towards one end of the feature (Illus. 7); this has led to the interpretation of the feature as a pit-trap. This trap would have been hidden deliberately in undergrowth and prey would have been driven into it and become impaled on sharpened wooden stakes (Illus. 8). Bone from both red deer and pig was recovered from the vicinity of the pit during the excavation, indicating that these animals might have fallen victim to the pit-trap. The proximity of the pit-trap to a burnt mound would point to a prehistoric date but scientific dating will confirm whether this is the case.

Conclusion

These sites have given a fascinating glimpse into ancient hunting techniques in south-east Ireland. Although still in the early stages of post-excavation analysis, they have demonstrated that people were exploiting wild resources which would have been abundant on the banks...
of the River Lerr and on the edge of Narraghmore Bog. The effort and skill that went into the hunting techniques described above would suggest that it was a specialised activity, which, as well as a means of obtaining food and raw material, might have been a sport or even a route to improved social standing for the hunter.
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Notes

2. Ballymount: NGR 281581, 201100; height 106 m O.D.; excavation reg. no. E2874; ministerial direction number A021; excavation director Gillian Mccarthy.