Figure 20. Distribution of recorded archaeological sites with kumara storage pits, Waikato Conservancy region, Department of Conservation. *Map: C. Edkins, DOC.*
Borrow pits at Aotea near the west coast are distributed along the crest and sides of relict sand ridges. Again, the fine sand removed from the pits was incorporated into parent soils with a fine sand and silt composition (Walton 1983). Large terraces without occupation debris or features, which are therefore assumed to be gardens, indicate that there is more than one form of gardening evidence present in this area.

Maori gardening sites on protected land are confined to Korapuki, Double Island and the Aldermen Islands. These protected sites are not a representative sample of what is present on the Coromandel Peninsula, much less in the Waikato Conservancy region as a whole.
6.4 BAY OF PLENTY

In the Bay of Plenty region, the majority of the 55 sites where evidence of gardening has been recorded are modified garden soils (Fig. 21). Many of the records describe alteration to natural tephra layers or absence of layers, but some records of gardens soils are doubtful and from the descriptions could also be interpreted as occupation debris. Garden soils have been recorded on the Papamoa dune plain (Gumbley 1999; McFadgen & Walton n.d.). These have only become apparent on excavation, but are an important part of the settlement evidence on the coastal dunes and may be widespread through the eastern Bay of Plenty and elsewhere. Disturbed tephra layers, which were interpreted as garden soils, were also identified on Matakania Island (Marshall et al. 1994).

The remains of extensive garden systems have been identified in valley bottoms at Kawerau (Lawlor 1981a, 1983, 1984). The evidence consisted of modified soils and ditches or trenches utilising, and dug into, the Kaharoa Ash. All features have been blanketed by up to 500 mm of gravelly ash from the Tarawera eruption, masking what could be evidence of a widespread and extensive method of gardening in the inland valleys. Storage pits are abundant on spurs and ridges overlooking the valleys (Fig. 22).

Gardening evidence in river valleys such as those of the Rangitaiki and Whakatane Rivers is sparse, but storage pits are frequent on higher ground within the valleys (Fig. 22). The lack of direct evidence for gardening mirrors the situation in major river valleys on the East Coast, where suitable weathered alluvial soils could have been used for gardens without any modifications (Jones 1991).

Stone-faced terraces, assumed to be associated with gardening, are present on Mayor Island (Tuhua) and Moutohora Island. Stone rows and stone heaps are also present in several locations on Moutohora (Bain 1987). This evidence is similar to that present on islands from Northland through the Hauraki Gulf and eastern Coromandel.

With the exception of evidence around Kawerau, little is known of gardening in the inland Bay of Plenty. Traditional and historical accounts of cultivations around Lake Rotorua, and physical evidence of storage pits and rua, are described in some detail in Stafford (1994). A recorded site on Mokoia Island in Lake Rotorua has rock boundary markers outlining garden plots.

Horticultural sites on protected land are sparse. Only those sites on Moutohora Island qualify as having protected status.
Figure 21. Distribution of recorded Maori horticulture-related archaeological sites, Bay of Plenty Conservancy region, Department of Conservation. Map: C. Edkins, DOC.
Figure 22. Distribution of recorded archaeological sites with kumara storage pits, Bay of Plenty Conservancy region, Department of Conservation. Map: C. Edkins, DOC.
The East Coast/Hawke’s Bay Conservancy area is large and diverse. Since there are significantly different topographic conditions and archaeological evidence for gardening, each area will be discussed separately.

Direct evidence of gardens is not common on the East Coast. A total of 46 sites have been recorded, including stone rows, modified soils, shallow ditches and one borrow pit (Fig. 23). Stone rows are present on the coastal platform near Cape Runaway, where a number of sites have been identified. However, storage pit sites are numerous on the East Coast (Fig. 24).

Gravels in topsoil have been recorded in several places, but Jones (1986) cautions against interpreting the presence of gravels in soils on alluvial flats as evidence of gardening where they might have a natural origin. In the Uawa and Waipaoa River Valleys, there is well-developed topsoil along the margins of the rivers at the base of the hills. In the absence of stone for making boundary rows, the evidence of horticulture is all but invisible. It is only the concentration of pa and storage pit sites in the vicinity that hints at widespread and intensive use of suitable soils for horticulture (Jones 1986, 1988).

The most extensive and well-preserved garden areas are those near Potikirua Point, between Cape Runaway and Lottin Point, where stony soils on the coastal strip allowed construction of numerous stone rows (Jones 1994). Fifteen stone row garden sites have been recorded on this north-facing area. These sites are discussed in more detail in section 7.5.

Stone rows, enclosures and stone heaps (Y14/126) are also present at Raukokore to the west of Cape Runaway, on the coastal terrace to the east, and are also known historically from Waihau Bay. South of Gisborne, there is a historic reference to stone rows at Bartlett’s Flat (Mitcalfe 1970: 175).

Trench-like features or low banks with ground divided into rectangles were recorded at three sites to the east of Whanarua Bay (Leahy & Walsh 1982: 13) and were observed at Whangara (P. Bain, DOC, pers comm.)

In 1769, Captain Cook and Joseph Banks observed an extensive area under cultivation on the slopes above Anaura Bay (Salmond 1991). The descriptions of taro and gourd plants, and kumara plantations of different sizes and growth, show the potential of the area for growing most of the pre-European crops. No evidence of this former gardening activity is visible archaeologically (Jones 1989).
Botanical evidence may provide indirect evidence for Maori gardening. At Grey’s Bush in the Waipaoa River Valley, a remnant of the forest that originally covered the valley is situated on the flood plain and borders a clay silt and sand fan. The mixed kahikatea (*Dacrycarpus dacrydioides*) and puriri (*Vitex lucens*) canopy of the bush is estimated to be c. 500 years old and represents a single-age stand (C. Ward, DOC, pers. comm.). The common age of the trees may provide evidence for the time of initial forest clearance and also for preferred gardening areas, with the bush (situated on Waiharere Soils of the flood plain) not being reburnt, while repeated burning and gardening prevented the natural sequence of regeneration on the adjacent clay loam derived from the alluvial fan.

As on the East Coast, storage pits are numerous in Hawke’s Bay (Fig. 24), but gardens are difficult to detect (Fig. 23). This is a common problem in areas where loam soils suitable for gardening were also stone-free. A total of 19 horticultural sites are recorded in the NZAA site recording file, a serious deficiency in comparison with other site types.

Parallel trenches on north- and north-east-facing slopes have been recorded in a few locations, but the details are brief. Stone rows, similar to the descriptions of the trenches, have been observed near Waipukurau. Rows have also been observed near the base of Te Mata Peak in Havelock North. Records of modified soils have brief descriptions, and some are doubtful gardening sites. Instead, they are likely to be evidence of shell midden scattered around a former settlement nearby. In the Napier area, terraces of irregular size on north-facing slopes have been tentatively identified as garden terraces (Fox 1982).

No specific gardening sites are recorded on protected land, but it is likely that the Otatara-Hikurangi Pa complex near Napier, which is a reserve, has garden areas adjacent to the living sites.
Figure 23. Distribution of recorded Maori horticulture-related archaeological sites, East Coast/Hawke’s Bay Conservancy region, Department of Conservation. Map: C. Faltins, DOC.
Figure 24. Distribution of recorded archaeological sites with kumara storage pits, East Coast/Hawke’s Bay Conservancy region, Department of Conservation. *Map: C. Edkins, DOC.*