An archaeological survey of Triangle Flat, Puponga Farm Park

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CONTENTS

Abstract

A survey of Triangle Flat, part of Puponga Farm Park, at the base of Farewell Spit was undertaken between Monday 29 November and 10 December 1999. Previously recorded sites were re-located and re-recorded. Sites were mapped by tape, compass, and pacing. A probe was also employed and test pits were dug at selected sites to characterise the stratigraphy and to collect samples for faunal analysis and radiocarbon dating. The radiocarbon dates indicate human occupation of Triangle Flat sometime between about 1440 and 1660 AD. A date was also obtained on one of the beach ridges that form a large part of the flat.

1. Introduction

1.1 PROJECT AIMS

An Archaeological survey of Triangle Flat, part of Puponga Farm Park at the base of Farewell Spit, was undertaken between Monday 29 November and 10 December 1999 (Fig. 1). The farm is administered by the Department of Conservation.

The main aim of the survey was to produce a more accurate and detailed picture of the extent of archaeological sites in the area and of their significance. The project included identifying and mapping the extent of sites, analysing the faunal content of middens, radiocarbon dating of sites, and analysis of an artefact collection from the area. The major focus was the beach front at Triangle Flat where a large number of exposures of midden had been recorded and which was also the hub for farming operations and visitor use. The extent of the individual midden deposits was defined using a combination of probing and test pitting.

1.2 PREVIOUS ARCHAEOLOGICAL WORK

Teviotdale spent four days in the area in December 1934. In this time he was shown a collection of adzes ploughed up on the farm and he fossicked over several large middens along the beach at Triangle Flat (Bagley 1976, Miller 1998:26-2847-48). A former landowner made a collection of artefacts from the property and this is now housed in the Waikanae Museum, Kapiti Coast, North Island. The study of these artefacts, the Freeman Collection, by Steve Bagley formed part of the project but will be reported separately.

Small excavations were carried out at sites M24/5 and M24/11 in May 1966 (Millar 1966a, 1966b).

In 1975 Bagley (1976) undertook a detailed survey of Triangle Valley Farm. The farm had recently been acquired by the Department of Lands and Survey and, with other areas, was to become Puponga Farm Park. Court (1978) has reported a small number of middens on Farewell Spit, and Brailsford (1981: 90–92) has described the pa on Puponga Point.

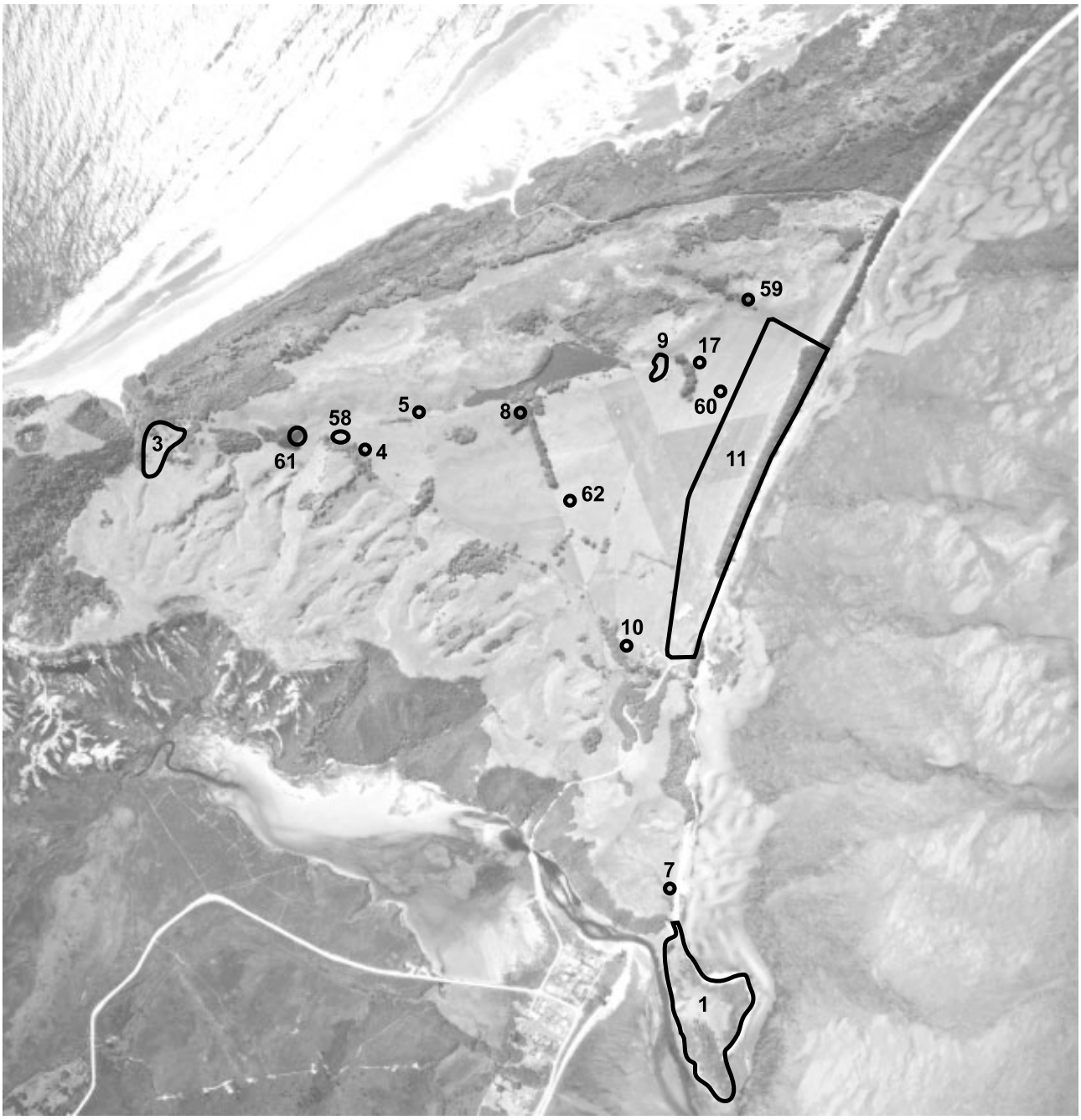

Figure 1: Triangle Flat showing the location of recorded sites.

2. Methods

The approach taken was to revisit and re-record known sites. Further information was recorded and detailed mapping of the extent of the sites undertaken. Changes in the condition of sites since they were first reported were also assessed. The beach ridges were then systematically explored for signs of occupation.

There are four topographical areas in the survey area:

1. The west flank of Triangle Flat is hill country formed in sandstones and siltstones with a limestone cap. Limestone outcrops in places along the margins of the valley.
2. Gently rolling sand country occupies the northern end of the valley. This surface is over 6000 years old and is bounded to the east by a scarp marking an old shoreline.
3. A series of low beach ridges up to about 350 m wide formed by progradation over the last 6000 years. Previous archaeological surveys had established this as a significant area for Maori occupation.
4. The east flank of Triangle Flat is marked by stabilised high rounded sand dunes. These have formed in the last 6000 years.

All previously recorded sites, except one (M24/6), were re-located and re-recorded. Sites were mapped by tape, compass, and pacing. A probe was used to establish the extent of any shell middens. Test pits were dug at selected sites (see Section 3, Tables 1 and 2) to characterise the stratigraphy and midden contents and to collect samples for faunal analysis and radiocarbon dating. Details of individual sites are documented on Site Record Forms held in the New Zealand Archaeological Association Site Recording Scheme.

The low beach ridges were systematically probed in a series of twelve transects parallel with the beachfront (Fig. 2). The spacing between transects was decreased towards the beach as the density of archaeological deposits appeared to be greater there. Many of the middens formed small mounds that were identifiable from their surface form, although this surface form was not an infallible indication of a midden. These possible spots were probed as they were encountered in the field.

Systematic probing showed that extensive natural deposits of shell are close to the ground surface (within 1200 mm of surface) in the homestead–woolshed part of the valley (Fig. 3). In this area the deposits extend up to 150 m inland. The deposits extend for 300 m along the shoreline and are up to 65 m inland at the north end.

The presence of natural deposits of shell close to the ground surface meant that shell is not necessarily a reliable indicator of past human occupation. Natural shell is sometimes mixed with shell midden either at the time of human occupation or as a result of subsequent disturbance such as ploughing. Species of shellfish, matrix, and condition of shell were the three primary means used to differentiate natural shell deposits from midden deposits.

Small excavations were undertaken at M24/11 (woolshed paddock only) and M24/17. These excavations were directed by Dr Ian Barber, Department of Anthropology, University of Otago, and had a number of aims including

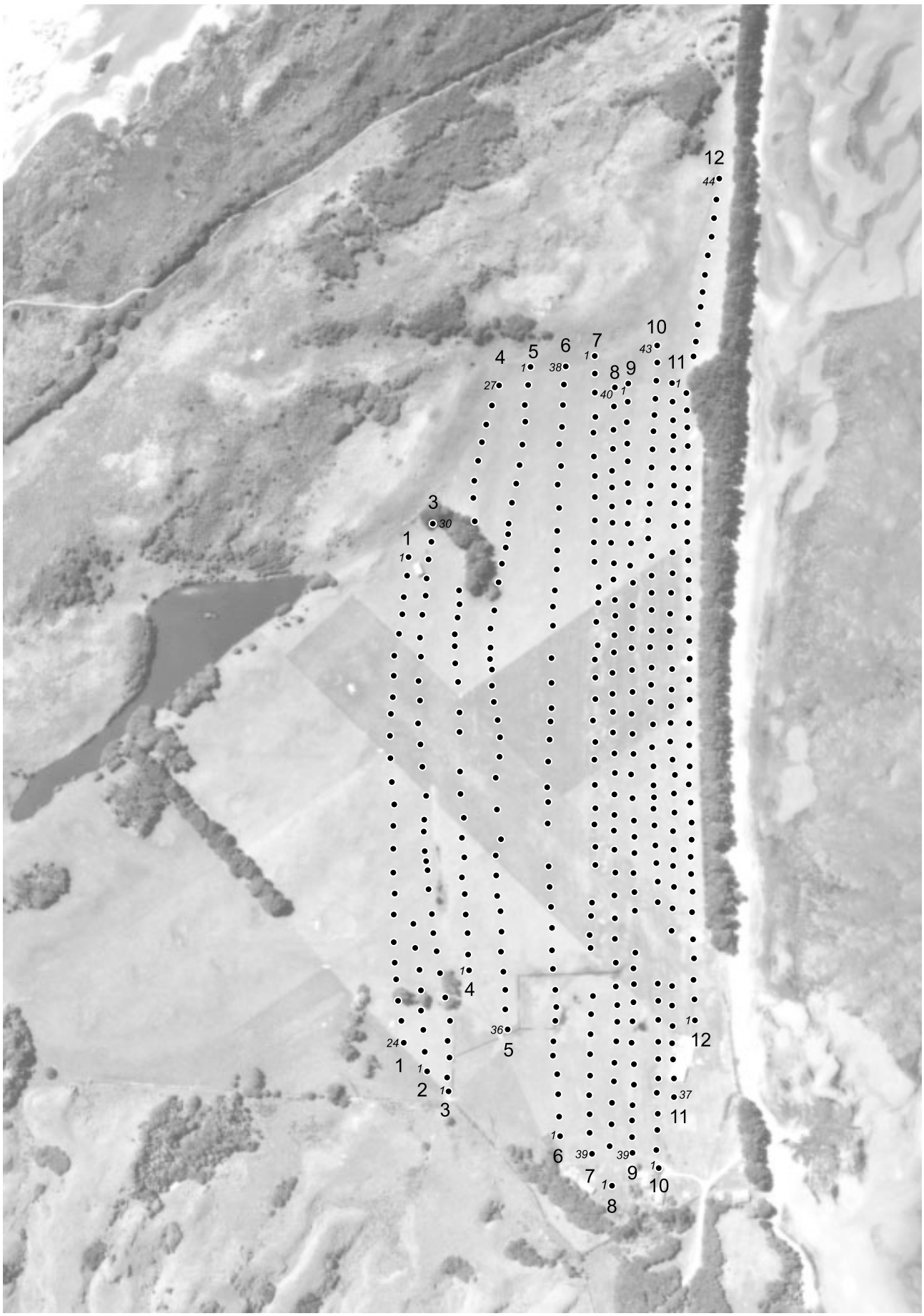

Figure 2: Lower Triangle Flat showing the location of the transects and the position of the points probed.

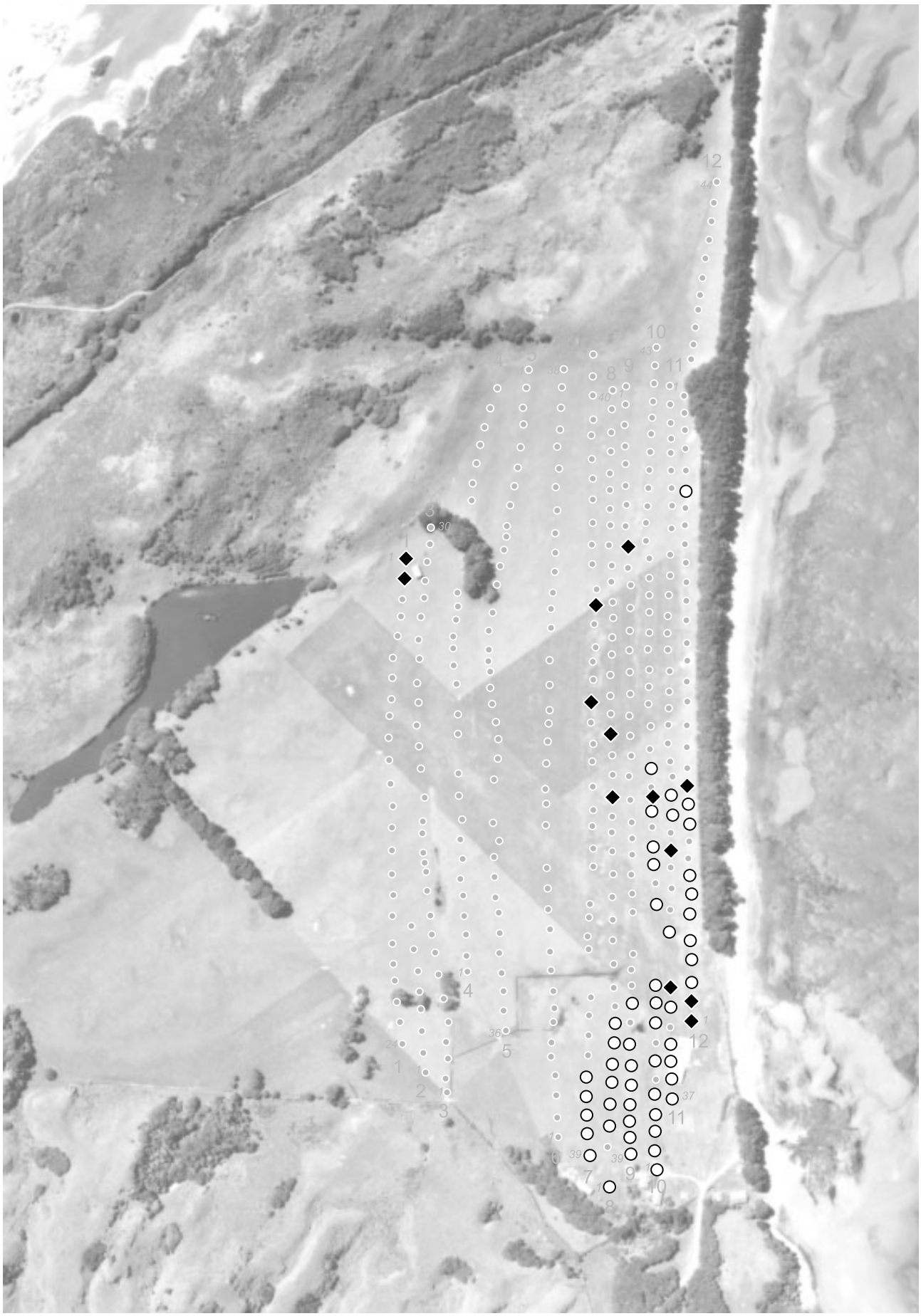

Figure 3: Lower Triangle Flat showing the pattern of probes that detected natural shell (shown as a circle) and those that detected midden (shown as a diamond).

clarifying the stratigraphy, determining the contents of the middens, and collecting secure samples for radiocarbon dating. Two samples from M24/11 were dated: one is a date on the midden and the other is on cockle (*Austrovenus stutchburyi*) from the underlying natural shell deposit and was submitted to provide a maximum age for one of the younger beach ridges. An archaeological sample from M24/17 was also dated.

3. Results

Ten previously recorded sites were re-visited and re-recorded. Table 1 summarises this work.

M24/10 was recorded in 1975 as a large midden site on the basis of extensive deposits of shell revealed in the sides of drainage ditches. The deposits were investigated and shown to be natural shell. One small area of midden was, however, identified.

Six new sites were recorded, although two records were intended to simplify the existing records. Table 2 summarises this aspect of the work.

Three radiocarbon dates were obtained and these are listed in Table 3.

TABLE 1. PREVIOUSLY RECORDED SITES.

SITE NUMBER	GRID REFERENCE	SITE TYPE	ACTIONS
M24/1	877754	Pa	Brief visit. Updated record filed.
M24/3	875773	Middens/pit	Extent of the various middens determined by probe. Test pits dug. Sketch plan drawn. Updated record filed.
M24/4	878769	Rockshelter	Five test pits dug outside and in entrance. Updated record filed.
M24/5	880770	Middens	Mapped with extent of the midden determined by probe. Test pits dug. Updated record filed.
M24/6		Midden	Insufficient time available to relocate site.
M24/7	878757	Midden	Brief visit. Updated record filed.
M24/8	881768	Midden	Extent determined by probe. Single test pit dug.
M24/9	885767	Middens	Extent of the various middens determined by probe. Test pits dug. Updated record filed.
M24/10	880762	Middens	Extent redefined. Test pits dug. Updated record filed.
M24/11	882762	Middens	Extent of the various middens determined by probe. Test pits dug. Small excavation undertaken. Updated record filed.
M24/17	886766	Midden	Extent determined by probe. Small excavation undertaken. Updated record filed.

TABLE 2. NEWLY RECORDED SITES.

SITE NUMBER	GRID REFERENCE	SITE TYPE	ACTIONS
M24/58	878770	Midden	Recorded and mapped. Site Record Form filed. Formerly recorded as part of M24/4.
M24/59	887767	Midden	Recorded and Site Record Form filed.
M24/60	886766	Midden	Recorded and mapped. Site Record Form filed. Formerly recorded as part of M24/11.
M24/61	877771	Homestead	Recorded and mapped. Site Record Form filed.
M24/62	881766	Sheep dip	Recorded and mapped. Site Record Form filed.
M24/63	857779	Radar station	Recorded and Site Record Form filed.

TABLE 3. RADIOCARBON DATES.

SITE NUMBER	LABORATORY NUMBER	CRA	CAL AGE (95% CL)	SPECIES DATED
M24/17	Wk-8051	760±50	1440 - 1650 AD	*Paphies subtriangulata*
M24/11	Wk-8052	750±50	1440 - 1660 AD	*Paphies subtriangulata*
M24/11	Wk-8053	2300±50	120 BC - 140 AD	*Austrovenus stutchburyi*

The archaeological dates indicate occupation sometime between about 1440 and 1660 AD. More sampling would be required to confirm if these dates are representative of the antiquity of most deposits in the area or simply reflect one period in a long run of occupation. Barber (1994) has reviewed archaeological evidence on the prehistory of northern Te Wai Pounamu. M24/4 is tentatively identified as one of only three sites in Golden Bay belonging to his Early Period (1100-1500AD) (Barber 1994:167). Further work has since been undertaken at this site and will be reported elsewhere. The radiocarbon dates for M24/11 and M24/17 may suggest that many of the midden sites on Triangle Flat belong to Barber's lower Middle Period 1500–1650AD when a resource crisis had led to a shift to the highly targeted exploitation of seasonal food resources.

The date on water-rolled marine shell gives a maximum age for one beach ridge. If 350 m of ground formed in 6500 years, the average progradation rate is .05 m per annum. M24/11 is located on a ridge that is about 300 m from the old shoreline and was, therefore, calculated to be at least 1000 years old. The evidence is that the dated ridge formed sometime in the first millennium AD.

Tuatua (*Paphies subtriangulata*) were transported from west coast beaches to sites throughout Triangle Valley. This is not founded on availability, as the lack of comparable movement of cockle (*Austrovenus stutchburyi*), present in large quantities in beds off the east coast beaches, makes clear. The pattern indicates a clear preference for tuatua based on meat value and taste.

Both M24/5 and M24/9 are situated at the foot of the high dune that forms the north side of Triangle Flat. Middens were perched on the slope in a way that suggested that there were once terraces and living areas above. Any such terraces are no longer visible at the ground surface.

No firm evidence of gardening was found but the methods employed were not conducive to the identification of garden soils. There are few features that could be interpreted as storage pits. There are some large pits in the gently rolling sand country at the northern end of the valley that could be interpreted as borrow pits. These were examined but no conclusion was reached about their origins.

4. Management

The involvement of Steve Bagley (Nelson/Marlborough Conservancy) and Nigel Mountfort (Golden Bay Area Office) ensured that the results of the project are immediately available to the Conservancy. The basic information from the survey was available soon after in the form of new NZAA Site Record Forms. Steve Bagley, towards the end of the fieldwork period, accompanied the farm manager (Lonestar Holdings, lessee) on a tour of sites. This report completes the documentation of the survey.

Most of the sites are in relatively stable condition and under no significant threat under the current management regime. The main exception is M24/59, but there is now very little material left *in situ* there. Very little can be done to protect this site. There is also obvious stock damage to M24/9. This is largely caused by unfortunate positioning of a fence along the toe of the slope and through the site. The fence should be moved. Failing that, the condition of the site should be regularly monitored.

The management of Puponga Point pa (M24/1) raises a number of issues. Currently, visitors are neither encouraged nor discouraged. This is unlikely to change, but the site needs to be retained largely in pasture to protect the sub-surface fabric of the site and so that surface features are visible to visitors. Some interpretation, either on site or in a pamphlet, may be desirable. Instrument survey is recommended as a basis for condition reporting and management of the site.

M24/3 is fenced-off from grazing and will slowly develop a scrub and bush cover. This will need to be managed to minimise impact on the site.

The shelter belt of mature pine trees behind the beach represents a medium- to long-term problem for the management of part of M24/11.

5. Conclusions

To date the project has:

1. Confirmed the pattern of site distribution established by the 1975 survey.
2. Investigated the stratigraphy at sites M24/10 and M24/11, with a focus on developing criteria for differentiating archaeological deposits from underlying natural shell deposits and mixed layers.
3. Provided radiocarbon dates for two midden deposits (M24/11 and M24/17) and demonstrated occupation sometime between the mid 15th and the mid 17th centuries.
4. Provided preliminary information on patterns of prehistoric resource exploitation of fish and shellfish. Further information will be available when detailed analysis of faunal samples is completed at the University of Otago and this aspect of the project will be reported separately.

5. Acknowledgements

The survey was carried out as part of Department of Conservation investigation no. 3241.

Manawhenua Ki Mohua gave approval for the project, and the test pitting was carried out under New Zealand Historic Places Trust authority 9900/24.

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Appendix 1

PLACES WHERE MIDDEN WAS IDENTIFIED:

Transect 1, Probe 1 and 2 (Pt. M24/9)

Transect 7, Probe 13 (Pt. M24/11, equivalent to # 14 on 1975 Site Record Form), 18 (Pt. M24/11). Test pit dug: 0–100 mm Turf/topsoil; 111–240 mm Shell midden, predominantly tuatua, some cockle, all in brown-grey matrix. Deposit is about 2 m in diameter. Midden was undisturbed as some tuatua were found in position of articulation.

Transect 8, Probe 19 (Pt. M24/9), between 21–22, 22, and between 30–31.

Transect 9, Probe 19, and between 20–21.

Transect 10, Probe 18, between 29–30, and between 37–38. Midden was noted in vicinity of Probe 25, and 40.

Transect 11, Probe 25, between 25 and 26, 26, between 26–27and between 31–32. Midden was noted in vicinity of Probes 1, 19, 22, 27 and 28.

Transect 12, Probe 1, 2, between 10–11, and 13. Midden was noted in vicinity of Probes 4 and 8.

PLACES WHERE NATURAL SHELL WAS IDENTIFIED:

Transect 6, Probes 1–4 (at 400 mm depth), 6 (at 800 mm).

Transect 7, Probe 15 (at 70 mm depth), 35 (at 600 mm), 36 at 250 mm), 37 (at 300), 38 (at 400), 39 (at 200). Identification confirmed by test pits at 36 and 39.

Transect 8, Probe 1 (at 100 mm depth), 3 (at 400 mm), 4 (at near-surface), 5 (at 150 mm), 6 (at 700 mm), 7 (at 500 mm), and 8 (at 900 mm).

Transect 9, Probe 32 (at 800 mm), 34 (at 1200 mm), 35 (at 600 mm), 36 (at 700 mm), 37 (at 700 mm), 38 (at 200 mm), 39 (at 700 mm), and 40 (at 200 mm).

Transect 10, Probe 1 (at 500 mm), 2 (at 500 mm), 3 (at 1000 mm), 4 (at 800 mm), 5 (at 900 mm), 7 (at 1100 mm), 9 (at 600 mm), 10 (at 300 mm), 11 (at 1200 mm), 12 (at 900 mm), 14 (at 1000 mm), 15 (at 300 mm), 17 (at 1100 mm), and 20 (at 1100 mm).

Transect 11, Probe 23 (at 400 mm), 24 (at 400 mm), 30 (at 1000 mm), 32 (at 200 mm), 34 (at surface), 35 (at surface), 36 (at surface), and 37 (at 150 mm).

Transect 12, Probe 3 (at 300mm), 4 (at 900mm), 5 (at 900mm), 6 (at 1100mm), 7 (at 1100mm), 8 (at 1100mm), 11 (at 1200mm), 12 (at 1100mm), and 28 (at 800 mm).

Appendix 2

SURVEY PARTICIPANTS

The fieldwork was undertaken by Tony Walton (Science & Research Unit, Department of Conservation, 29 November – 10 December); Steve Bagley (Nelson/Marlborough Conservancy, Department of Conservation, 29 November – 10 December); Nigel Mountfort (Golden Bay Area Office, Department of Conservation, various days); Dr Ian Barber (University of Otago, 6–10 December); Karen Greig (New Zealand Historic Places Trust, 6–8 December); Fiona Kirk (6–10 December); and Nick Koirala (6–10 December).