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## ARCHAEOLOGY IN NEW ZEALAND



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# HOW MANY ARCHAEOLOGICAL SITES ARE MANAGED BY THE DEPARTMENT OF CONSERVATION?

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## Introduction

The Department of Conservation (DOC) estimates that it manages “more than 12,000 historic heritage and cultural sites” (Department of Conservation 2004: 62). The 13 constituent conservancies are required to maintain inventories of historic heritage places on land managed by the Department, including: any known historic places and archaeological sites as defined by the Historic Places Act; all archaeological sites recorded in the New Zealand Archaeological Association (NZAA) Site Recording Scheme; all actively managed historic places; all registered historic places; all historic reserves; and any additional sites of importance to iwi (that they choose to have listed).

The completeness, reliability and format of the Conservancy inventories appear to be variable. As a result, there is no consolidated list and the national picture remains unclear.

This paper reports on a recently created listing of archaeological sites recorded in the New Zealand Archaeological Association Site Recording Scheme that are likely to be on land managed by DOC. It provides some basic statistics on these sites, what they are and where they are located. This provides essential information for scoping a programme to upgrade information on these places and is pursuant to National Priority Outcomes which are variously expressed but have a focus on ensuring that “historic heritage in areas administered by the Department is identified and preserved and, where appropriate, conserved and interpreted” (Department of Conservation n.d.: 29). The Minister of Conservation (letter to the President of NZAA dated 4 August 2004) advised that “upgrading the Department of Conservation’s archaeological data is a large project, involving around 10–12,000 site records.” He confirmed that DOC would be “staging this

work over several years” and that the Department was keen to work with NZAA on this. As part of this work the Department has signalled that those archaeological sites that it manages will be entered into its Visitor Asset Management System (VAMS). This will also facilitate the implementation of a condition monitoring programme.

## Method

A Geographic Information System (GIS) was used to identify which of the 55,827 sites recorded in Central Index of New Zealand Archaeological Sites (CINZAS), as at 19 October 2004, are reported as lying

- 1) within land managed by DOC: these sites are referred to henceforth as “probable”,
- 2) within 100 m of land managed by DOC: henceforth “possible”,
- 3) between 100 and 200 m of land managed by DOC: “unlikely”, and
- 4) more than 200 m from land managed by DOC: “improbable.”

The GIS component of the study was done by Joanna Drabsch (Research, Development & Improvement Division, DOC).

CINZAS is an index to records in the Central File of the New Zealand Archaeological Association. It is maintained by the Research, Development & Improvement Division of DOC. The scope of the New Zealand Archaeological Association Site Recording Scheme is wide but it does not usually include buildings in everyday use or wahi tapu (although not recorded as wahi tapu as such, some archaeological sites are, of course, considered wahi tapu). It is the largest single database of New Zealand historic heritage places available. The Department has 545 actively managed places (Department of Conservation 2003: 21) many of which are also recorded in the New Zealand Archaeological Association Site Recording Scheme. The number of actively-managed places does change, and so this figure is intended only to provide an indication of the order of magnitude.

The sites in CINZAS are mostly recorded only to the nearest 100 m, so the list produced is a first approximation. Using only grid references there is no way of determining whether a site near a particular land parcel boundary lies within, without or on both sides of the boundary. Some sites within 100 m and even some within 200 m may lie on land managed by DOC. On the other hand, some of the sites identified as lying on DOC managed land may not actually be on DOC managed land.

This New Zealand wide study does not include outlying islands such as the Chatham Islands, the Auckland Islands or Campbell Island. Any recorded sites on DOC managed land on these islands are additional to the figures reported. A GIS study employing a similar approach to identifying sites on the Chatham

Islands managed by DOC found 239 sites on or within 100 m of DOC managed land (Jackson 1998: 130). The recent (2003) DOC expedition to the Auckland Islands has significantly expanded the inventory of known historic places to over 100, and there are about 50 historic places reported on Campbell Island (Judd 1994).

## Results

With the above limitations of the method in mind, 7098 sites are identified as probably lying on DOC managed land. A further 4316 were recorded as lying within 100 m of DOC managed land and 2500 were between 100 and 200 m of DOC managed land. Allowing for uncertainties arising from lack of precision in the data, this suggests that between 7098 and 11,414 known sites are in the care of the Department. The data are held in an EXCEL spreadsheet in the departmental document manager (wgnco-54220) and for “probable” sites includes the CINZAS record and the conservation land parcel concerned.

Table 1. Numbers of records in each of four classes

Class	Probable	Possible	Unlikely	Improbable
Number	7098	4316	2500	41,913

## Discussion

The above data allow us to answer a series of relevant questions as follows:

### *How many sites are on DOC managed land?*

Some 7098 sites are identified as probably lying on DOC managed land. In addition, 4316 were recorded as lying within 100 m of DOC managed land. Allowing for uncertainties arising from lack of precision in the data, this suggests that between 7098 and 11,414 known sites are in the care of DOC. The midpoint of this range, 9256, was first considered to provide a best estimate.

A recent inventory of Nelson/Marlborough Conservancy identified 622 sites on land managed by DOC (S. Bagley pers. comm.). The present study suggests a range of 512 to 898 for the same conservancy with a midpoint of 705, which is somewhat higher than the more accurate conservancy figure. Figures collected for RD&I investigation 3692 suggested that 600 to 650 pa sites were managed by DOC. This figure was based on lists returned from most conservancies that manage pa. The GIS study suggests a range of 554 to 1002, its midpoint of 778 again being higher than the likely more accurate figure. This suggests that use of the midpoint in the range is overestimating the numbers. Therefore a better estimate may be “probable” plus one-third of “possible.” This calculation gives a figure of 8522 being our best estimate made at this time.

*How does this compare with other estimates?*

The Department has very limited information on the number and condition of historic heritage sites that it manages. The earliest estimates were largely based on land tenure information recorded in CINZAS; these data have continued to be used one way or another in most subsequent calculations of numbers. Information on land tenure in CINZAS is only as current as the date of last reported visit. As at 19 October 2004, 63.9% of records in CINZAS had a date of last reported visit prior to 1987, before DOC was formed. In addition, 19.4% of records in CINZAS have no information on land tenure recorded. Nonetheless, estimates based on CINZAS data indicated that potentially more than 10,000 sites were managed by the Department and recent reports have used the figure of “more than 12,000 historic heritage and cultural sites” (Department of Conservation 2003: 22, 2004: 62).

*How many other sites are there likely to be?*

The count reported is based on recorded sites. A lack of known sites often reflects the state of survey rather than actual absence. Large parts of the country, including DOC managed land, have not been systematically surveyed for archaeological sites. Some conservation land parcels are well surveyed, others are not. Some areas are known to contain large numbers of sites (e.g., there are 692 known sites on DOC managed land on Kaitorete Spit, Canterbury, which are not recorded in the NZAA Site Recording Scheme). This indicates that detailed recording of DOC managed land could significantly change the numbers. There is, however, currently no estimate of the number and class of as yet unrecorded sites on DOC managed land. There are predictive models of prehistoric/Maori sites (Leathwick 2000; Arnold et al. 2004) which could be used to help identify areas of highest potential for further survey in terms of Maori sites.

*Which parts of the country have the largest number of recorded sites managed by DOC?*

Table 2 shows the sites listed by Conservancy. Northland stands out as particularly important with 28.8% of all probable sites occurring within it. Auckland has a further 17.5%. This reflects the wealth of evidence of Maori occupation in the north of the North Island and extending as far south as Taranaki, Wanganui and Hawkes Bay (Leathwick 2000; Arnold et al. 2004).

*What classes of archaeological sites are managed by DOC?*

Of the 7098 sites most likely to be on land managed by DOC, 4855 (68.4%) are Prehistoric/Maori; 2212 (31.2%) are historical archaeological

Table 2. Number of sites by DOC Conservancy

	Probable	Possible	Unlikely	Improbable
Northland	2049	833	488	7684
Auckland	1243	730	331	6429
Waikato	566	480	343	5891
Bay of Plenty	567	229	212	7533
Tongariro/Taupo	81	59	26	381
East Coast-Hawkes Bay	117	106	133	5156
Wanganui	161	148	107	2063
Wellington	88	83	68	881
Nelson-Marlborough	512	386	150	1197
West Coast	452	156	104	182
Canterbury	171	74	47	999
Otago	732	796	403	2996
Southland	359	236	88	521
Total (55,827)	7098	4316	2500	41913

Table 3. Categories of sites in probable and possible classes

	Probable	Possible	Probable & Possible
Prehistoric/Maori	4855 (68.4%)	3092 (71.6%)	7947 (69.6%)
Historical archaeological	2212 (31.2%)	1184 (27.4%)	3396 (29.8%)
Other	31 (0.4%)	40 (0.9%)	71 (0.6%)
Total records	7098	4316	11,414

sites; and 31 (0.4%) are sites shared codes common to both. Results for “possible” sites (i.e., within 100 m) are similar and are shown in Table 3.

For comparison, historic archaeological sites make up just 16% of recorded sites in CINZAS (Walton 2004).

The most numerous prehistoric/Maori sites in the “probable” class are middens (980); pits (654); terraces (555); pa (all classes) (554); terraces/pits (365); terraces/middens (199); ovens (197); and ovens/middens (190). The “possible” group are similar with the most numerous classes of sites being middens (1058); pa (all classes) (448); terraces (183); pits (181); ovens/middens (132), terraces/pits (131); terraces/middens (115); and ovens (114).

#### *How current is the information on sites on DOC managed land?*

Some 66% (4730) of the “probable” records have a date of last visit that predates the formation of the Department in 1987. Since then sites have been recorded or updated at an average rate of 140 per annum over the last 17 years. Fewer than 16% of sites have a reported visit in the last 10 years. Reports of a

visit may not be made if the site is considered stable and under no threat, but there is no way to differentiate ‘visited but not reported’ from ‘not visited at all.’ The information cannot be considered current for the vast majority of sites.

## Conclusions

This study confirms the need for a basic list for all historic places on land managed by the Department. A basic level of information on all historic places managed by the Department is required even if this amounts, initially, to little more than identifying them and where they are. National coverage is essential if the information is to be used for statistical and planning purposes. Currently it is intended that this data will be accommodated within VAMS alongside the existing records of actively managed sites.

DOC has very limited information on the number and condition of historic heritage places that it manages. This study, using CINZAS data and the land information register, indicates that that between 7098 and 11,414 known archaeological sites are in the care of DOC. The best estimate is 8522. This figure does not include historic buildings in use (as opposed to ruined buildings which could meet the definition of an archaeological site), wahi tapu or any of the numerous historic heritage places on outlying islands under DOC management. This suggests that the “more than 12,000 historic heritage and cultural sites” noted in departmental publications is of the right order.

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