# AN ARCHAEOLOGICAL ASSESSMENT OF STATE FORESTS WITHIN THE DORRIGO THREE YEAR ENVIRONMENTAL IMPACT STUDY AREA, NORTH COAST, NEW SOUTH WALES.

A report to
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# ABSTRACT

South East Archaeology was commissioned by New South Wales State Forests to undertake an archaeological survey of the Dorrigo Three Year Management Area, on the New South Wales north coast. The study area is comprised of 8 000 hectares of unlogged forest in Chaelundi State Forest and 18 000 ha of previously logged forest in parts of Wild Cattle Creek, Ellis, Moonpar and Clouds Creek State Forests.

Background research into the environmental, Aboriginal and historical contexts is reported on. The study area is located entirely within the Escarpment Ranges land system. An analysis is made of environmental units and background data to develop a predictive model of site location and zones of archaeological sensitivity, which can be used by State Forests as a basis for planning and management. A survey strategy designed to sample a range of toposequences within the study area, with the general aims of locating and recording Aboriginal sites and testing the predictive model, is outlined.

The field investigation consisted of fifteen days surveying, undertaken in January 1994 by the consultant and a representative of the Grafton-Ngerrie Local Aboriginal Land Council. A total of forty artefact occurrences were recorded, including a re-recording of several sites located during the previous Management Area wide EIS. The forty artefact occurrences include one lithic quarry/reduction site, one scarred tree, nine isolated artefacts and thirty artefact scatters. A total of forty-nine Trajectories were inspected, resulting in a total effective coverage of 21946m$^2$, or approximately 0.008% of the 26 000 ha study area.

The results are analysed primarily in terms of correlations between artefact densities and environmental variables. A significant difference in the archaeological resource is identified between the relatively undisturbed Chaelundi forest and the intensively logged Ellis and Wild Cattle Creek forests. Artefact densities are much lower in the previously logged forests. Possible explanations include the disturbance of evidence caused by logging, an inadequate sample size and sample bias. Sites generally occur along ridgelines, although the sample was biased towards them. High densities of artefacts and large artefact scatters occur along the three main ridgelines in East Chaelundi. There is a tendency for greater artefact densities along ridgelines to occur on ridge crests, saddles and low spurs.

The predictive model of site location is reassessed in light of the survey results. The significance of sites is assessed. Potential impacts of the range of proposed forestry activities upon the identified and predicted archaeological resource are discussed.

A management strategy based on identifying and conserving a representative sample of the identified and predicted archaeological resource is adopted. The strategy is area-based rather than site-specific and will allow for conservation of a representative sample of the archaeological resource. Specific recommendations are also proposed for the management and conservation of Aboriginal sites located within the Dorrigo Three Year Study Area, in terms of the relevant legislation.

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# 1. INTRODUCTION

Peter Kuskie, of South East Archaeology, was commissioned by New South Wales State Forests in December 1993 to conduct an Aboriginal archaeological survey of selected areas within the Dorrigo Management Area. The study is to form a component of State Forests' programme to obtain an Environmental Impact Statement for the Dorrigo Three Year Study Area.

An Environmental Impact Statement (EIS) for the Dorrigo Management Area (MA) has previously been prepared by Sinclair Knight (1992), which included a preliminary archaeological study of the Management Area by Comber (1992). Prior to submission, the EIS was withdrawn and a new study commissioned of areas proposed to be logged over a three year period, with logging to commence in the near future. This EIS is referred to as the Dorrigo Three Year EIS.

The study area is located near Dorrigo on the New South Wales north coast. The focus of the archaeological investigation is a survey of the previously unlogged moratorium forest in eastern Chaelundi State Forest (SF). Two-thirds of fieldwork was to be conducted within this 8 000 hectare unlogged area and the remainder within 18 000 ha of regrowth forest in parts of Ellis, Clouds Creek, Moonpar and Wild Cattle Creek State Forests. The term 'unlogged' is used throughout this report to refer to areas that have not been previously logged by State Forests. Fieldwork was undertaken in January 1994 and the study was completed in February 1994.

## 1.1 Project Aims and Scope

The general aims of the archaeological study are:

- to conduct a survey and analysis of Aboriginal archaeological sites within the Dorrigo Three Year Management Area;
- to develop a predictive model of site location and zones of archaeological sensitivity that is suitable for use by State Forests as a basis for planning and management of Aboriginal archaeological sites;
- to consider the impact of the proposed activities on the archaeological resource and recommend a mitigation strategy that aims to protect a representative sample of the resource and sites of high significance.

The requirements of the study brief include the following specific objectives:

- liaise with the local Aboriginal communities regarding the archaeological survey and their concerns for sites within the study area.
- liaise with State Forests' Project Manager, District Forester and Project Archaeologist;
- review existing literature and background information, including recent EIS studies, to formulate an appropriate survey methodology;
- develop a predictive model of the nature and extent of Aboriginal sites within the study area using a land systems approach and focusing on areas scheduled for logging and roading;

- conduct a programme of fieldwork to locate and record sites in order to refine the predictive model;

- assess in general terms the previous processes of land disturbance and their effect on the preservation and integrity of the archaeological resource;

- assess the archaeological and cultural significance of recorded sites;

- assess the archaeological sensitivity of landscape units on a small a scale as possible, taking into consideration the history of land disturbance;

- assess to what extent the current reserve system is likely to protect a representative sample of sites and archaeologically sensitive landscape units;

- identify probable impacts of proposed activities on the identified and predicted archaeological resource, taking into consideration disturbance history, archaeological sensitivity of landscape units and protection afforded by the current reserve system;

- present management recommendations for sites identified (including those previously recorded) and for preserving a representative sample of the archaeological resource;

- prepare a final report in accordance with the National Parks and Wildlife Service guidelines.

Regarding the survey methodology, the following specific requirements are outlined within the study brief:

- concentrate sampling on areas with potential to contain sites but which are least represented in the current reserve system (i.e. level to gently sloping landscape units);

- undertake minor sampling of sloping areas;

- undertake ten days fieldwork in the moratorium area (eastern Chaelundi) and five days fieldwork elsewhere (Ellis, Clouds Creek, Moonpar and Wild Cattle Creek);

- direct at least half of the survey effort towards block surveys, most likely in recently burnt areas, and survey for more obtrusive site types such as scarred trees, stone arrangements and quarries.

## 2. ENVIRONMENTAL CONTEXT

### 2.1 Study Area Location

The Dorrigo Three Year EIS study area is located on the eastern slopes of the Great Dividing Range, in the New South Wales north coast region (Appendix 1). It is situated on the escarpment ranges of the Dorrigo Plateau, which forms a natural barrier between the valleys of the Clarence River to the north and the Macleay River to the south.

The study area comprises approximately 8 000 ha of old growth forest in the eastern portion of Chaelundi State Forest and 18 000 ha of regrowth forest in parts of Ellis, Clouds Creek, Moonpar and Wild Cattle Creek State Forests (Appendix 2). The Chaelundi study area is bordered to the north by Marara Creek and Chandlers Creek, to the south and east by Chandlers Creek and to the west by several gullies and Wild Lemon Creek. The Dundurrabin and Cascade groups of forests are located to the south-east of Chaelundi and include the regrowth forests in two discrete blocks. The Ellis study area block contains almost all of Ellis State Forest and a small portion of the south-western corner of Clouds Creek State Forest. The Wild Cattle Creek study area block is mostly within the Cascade group and includes the majority of Wild Cattle Creek State Forest and the eastern portion of Moonpar State Forest.

### 2.2 Topography

The Dorrigo Management Area is situated on the Dorrigo Plateau. The plateau is bordered by coastal plains to the east, rugged valleys associated with tributaries of the Clarence River to the north, the Guy Fawkes River to the west and the Macleay and Bellinger Rivers gorge country to the south (Sinclair Knight 1992:5-1). The plateau is drained by a number of rivers and tributaries of the Nymboida and Boyd River systems, which comprise the south-western upper catchment of the Clarence River system (Sinclair Knight 1992:5-1). Major watercourses located within or adjacent to the Three Year Study Area include Chandlers Creek, Bobo River, Little Nymboida River and the Nymboida River.

To enable construction of an archaeological predictive model, it is useful to the classify the study area into categories which identify the broad land system (e.g. escarpment ranges, coastal ranges, inland ranges, etc) and the more specific landform pattern (e.g. hills, low hills). The study area is located entirely within the Escarpment Ranges land system and represents the closest point at which the Tablelands approach the coast. The Escarpment Ranges include the land dominated by steep hills and plateaux, generally above 500m in elevation. Elevation varies widely throughout the study area, but is over 1000m Above-Sea-Level (ASL) in the western part of Ellis State Forest and only 250m ASL at some of the major watercourses. Wild Cattle Creek State Forest typically has an elevation between 600 - 750 m ASL, while Ellis State Forest generally is elevated between 700 - 900 m ASL and East Chaelundi between 500 - 800 m ASL (Sinclair Knight 1992). The Escarpment Ranges basically represent the 'falls country' to the east of the New England Tablelands (cf. Hall & Lomax 1993a:29).

Eastern Chaelundi and the western portion of Ellis State Forest can broadly be classified in the 'Hills' landform pattern, which has an average relief varying between 90 - 300 m. The Hills landform pattern is heavily dissected by drainage channels, with narrow linear ridge tops and valley bottoms, separated by moderate to steep slopes. Three large dominant ridgelines occur in East Chaelundi; Frenchmans, Red Herring and Stockyard/Stop-a-bit.

The 'Low Hills' landform pattern includes those areas of lightly dissected relief varying between 30 - 90 m. Low Hills mostly occur in the eastern part of the Ellis forest block and throughout the Wild Cattle Creek block. Ridgelines tend to be broader, as do stream flats and lower slopes. Slopes are generally gentle to moderate in nature.

### 2.3 Geology and Soils

The geology of the study area is examined to identify if stone sources are present which may be a factor in Aboriginal site location. The geology predominantly consists of Brooklana Beds, overlying the older Moombil Beds. A small portion of the north-east of Chaelundi consists of Coramba Beds, as does a small portion in the north of Wild Cattle Creek State Forest. Deposits of Fine Grained Granites occur within the western section of Ellis State Forest and a minor Basalt intrusion occurs in the north-west of Wild Cattle Creek SF (Sinclair Knight 1992).

The underlying Moombil Beds consist of black massive argillite with minor sandstone and siltstone. Outcrops of metasedimentary rock were observed throughout Chaelundi and western Ellis SF along ridgelines, and across the study area in stream beds. The Brooklana Beds consist of thin-bedded siliceous mudstone and siltstone with rarer lithic sandstone. Lithic and felspathic greywacke with minor siltstone, siliceous siltstone and mudstone occur in the Coramba Beds (Sinclair Knight 1992). Siliceous metasedimentary rocks were commonly used in the manufacture of Aboriginal stone artefacts and were therefore available throughout the study area. In addition, the major creek beds such as Chandlers Creek, contain numerous river pebbles which would have also been a potential source of raw materials for Aboriginal stone artefact manufacture.

Soils within the study area correspond to the underlying geological formations. Hence, the Brooklana soil unit, comprised of chocolate soils, yellow podzolic soils and structured plastic clays is dominant (Sinclair Knight 1992). These soils also occur in the Coramba soil unit, which is associated with the Coramba Beds.

### 2.4 Flora and Fauna

The flora and fauna of the study area are examined to determine what subsistence resources may have been available to the Aboriginal occupants and whether variations in the vegetation cover may be a factor in site location or have implications for the visibility of archaeological evidence. It has been suggested that the dry sclerophyll forests in Chaelundi would have provided easy access for Aborigines moving between the Clarence Valley and the Tablelands (Hall 1993 *pers. comm.*). Flora and fauna studies of the Three Year EIS Study Area are currently being undertaken. However, comprehensive information is available from studies conducted within the framework of the withdrawn Dorrigo Management Area-wide EIS (Sinclair Knight 1992). Climate, altitude and geological factors strongly influence the distribution of vegetation types within the study area.

Eastern Chaelundi is characterised by dry sclerophyll forests containing dry hardwood species. Spotted Gum forests are prevalent throughout East Chaelundi, with the dominant species being Spotted Gum (*Eucalyptus maculata*) and Grey Gum (*E. propinqua*), and associated species including Thick-leaved Mahogany (*E. carnea*), Brush Box (*Lophostemon confertus*), New England Blackbutt (*E. campanulata*), Tallowwood (*E. microcorys*) and Thin-leaved Stringybark (*E. eugenoides*) (Sinclair Knight 1992). The shrub layer is typically sparse and the ground layer is dominated by grasses. Hence, the visibility of archaeological evidence can be limited, except in areas where the grass cover has been removed (e.g. recently burnt areas). Some areas, particularly along Frenchmans Ridge, contain an understorey of the Pineapple Palm (*Macrozamia moorei*), which is a food resource documented in the eastern Australian highlands as having been exploited to allow large numbers of people to gather for varying periods of time. Woodland communities dominated by Forest Red Gum and Thin-leaved Stringybark occur in the eastern-most portion of Chaelundi adjacent to Chandlers Creek. Blackbutt communities dominated by Blackbutt (*E. pilularis*) occur near Red Herring Hill. *Xanthorrea* spp. and *Acacia* spp. also occur in East Chaelundi.

The Ellis forests are characterised by New England Hardwoods in the western portion and by Moist Hardwoods in the eastern portion. The western community is primarily New England Blackbutt, with dominant species including New England Blackbutt, Tallowwood and Diehard Stringybark (*E. cameroni*). The eastern community is primarily Tallowwood/Blue Gum, with dominant species including Tallowwood and Sydney Blue Gum (*E. saligna*) (Sinclair Knight 1992).

The Wild Cattle Creek forests are primarily comprised of Moist Hardwoods, with minor Rainforest, Blackbutt and Dry Hardwoods also occurring. The Moist Hardwood forest is dominated by a community of Tallowwood/Blue Gum. Pine plantations occur in southern sections of Wild Cattle Creek State Forest (Sinclair Knight 1992).

Faunal species within the study area are similar to those which occur elsewhere in the Northern Tablelands/North Coast Regions. In the overall Management Area EIS, 42 native mammals (including bats), 7 introduced mammals, 37 reptiles, 24 amphibians and 154 bird species were identified within nine habitat groups (wet and dry forests, rainforests, aquatic, creekline, grassland, arboreal/terrestrial and aerial) (Sinclair Knight 1992). Species include the Eastern Grey Kangaroo, wallabies, pademelons, Wallaroo, gliders, possums, Koala, bandicoots, Echidna, Platypus, Antechinus, eels, catfish and tortoises (Sinclair Knight 1992).

## 2.5 Climate

A warm temperate climate influences the study area. It is characterised by warm, wet summers with occasional heavy rains and cool to cold, dry winters with frequent frosts and occasional snow (Sinclair Knight 1992:5-11). Annual precipitation averages 2016 mm at Dorrigo, peaking in late summer and early autumn. Temperatures are typically highest between November and February and lowest between May and August (Sinclair Knight 1992:5-12).

## 3. ABORIGINAL CONSULTATION

Much of the Dorrigo Three Year EIS Study Area lies within the boundaries of the Far North Coast Regional Aboriginal Land Council (RALC). Preliminary consultation was undertaken with Mr Dallas Donnelly, Co-ordinator of the Far North Coast RALC, by the State Forests Archaeologist Mr Roger Hall. The consultant subsequently communicated with Mr Donnelly to inform him of the progress and results of the archaeological survey.

The majority of the study area is located within the boundaries of the Grafton-Ngerrie Local Aboriginal Land Council (LALC) (Appendix 3). As part of the on-going process of communication between State Forests and Aboriginal communities, the State Forests Archaeologist had undertaken consultation with the Grafton-Ngerrie LALC, through its Co-ordinator Mr Alan Watson, prior to the consultants engagement. The Grafton-Ngerrie LALC was informed of the project and arrangements were made for a representative of the Land Council, Mr Trevor Donnelly, to accompany the consultant during the archaeological survey. Mr Donnelly participated for the duration of the survey. His concerns regarding the Aboriginal values of the area are addressed in section 9 and section 11.5. However a written statement from the Land Council is not available, as contractual arrangements were made directly between State Forests and the Grafton-Ngerrie Land Council.

A small portion of Wild Cattle Creek State Forest east of the village of Cascade lies within the boundaries of the Coffs Harbour and District Local Aboriginal Land Council. The State Forests Archaeologist undertook preliminary consultation with this Land Council and subsequently the consultant communicated with the Co-ordinator, Mr Richard Dacker, to inform him of the survey progress and results. No field surveying was undertaken within this portion of the study area, hence it was not necessary to engage a representative of the Coffs Harbour and District LALC to assist the consultant.

The southern portion of the Wild Cattle Creek State Forest block is depicted on the NSW Local Aboriginal Land Council Map as being "unrepresented". Mr Michael Kim, a representative of the Northern Tablelands RALC and the Armidale LALC, which may have an interest in the unrepresented area, was informed of the project and the results of the survey. After discussions between the State Forests Archaeologist, the consultant and representatives of the surrounding Land Councils (Grafton-Ngerrie, Coffs Harbour and Armidale), it was considered most appropriate that a member of the Grafton-Ngerrie LALC accompany the consultant for the field survey of this area.

# 4. HISTORICAL CONTEXT

The historical context of the study area is discussed for two primary reasons; to describe the pattern of traditional Aboriginal land-use to assist with the development of a predictive model of site location; and to discuss the non-Aboriginal land uses, some of which may have implications for the survival of Aboriginal sites.

## 4.1 Traditional Aboriginal Land Use

Tindale (1974) compiled an assessment of Aboriginal clan territories within Australia. The territory of the Gumbaynggir people is described as extending from the Nymboida River across the range to Urunga, Coffs Harbour and Bellingen and including South Grafton and Glenreagh. This area encompasses land between Nambucca Heads and Woolgoolga and includes the current study area. A language belonging to the Kumbainggeric Group was spoken over a wide area of the mid-north coast, between the Nambucca and Clarence Rivers and inland to Ebor and Dumpe (Hoddinott 1978). It is likely three or four dialects were spoken as the group covered a wide area (Hoddinott 1978:53).

There is considerable debate about the extent of movement of people on the New South Wales north coast region. McBryde (1982:36) argues the occupational pattern of the region was characterized by high seasonal mobility. People exploited coastal resources during the summer and resources of the hinterland during the winter. This hypothesis is supported by a number of ethnohistorical observations made by early settlers. For example, Sabine (1970) notes that according to oral tradition Aboriginals from the Nymboida foothills visited the coast during the late summer and winter months. Belshaw (1966) recounts early settlers observations of a corroboree near Armidale being attended by Aborigines from the Clarence Valley, as well as from the Tablelands. There is also archaeological evidence for the movement of goods between the coastal and riverine plains and the inland mountains (McBryde 1974). The ranges of eastern Chaelundi are one potential avenue for the movement of people between the Clarence Valley and the Tablelands. In particular, access through the dry sclerophyll forests may have been relatively easier than access through the more densely vegetated wet sclerophyll forests or rainforests of other areas.

Coleman (1982) however, argues occupation along the coastal zone was largely sedentary, with people limiting their movements to small territories in which they could adequately meet their subsistence needs. Coleman (1982) claims movement of people was predominantly parallel to the coast, not from the coast to hinterland, and was made in order to attend ceremonial gatherings, not to find a new location in which to reside. Sullivan (1978:109) describes the north coast as providing an abundance of riverine and rainforest products which allowed large groups of people to congregate for lengthy periods of time.

Godwin (1991) reviewed the issue and concluded that the Aboriginal groups on the Tablelands did interact moderately with sub-coastal groups on the eastern margins of the Tableland, but did not interact with groups on the coast. Feary (1989), referring to the New South Wales south coast, and Lilley (1984), referring to south-east Queensland, have forwarded similar land use models which include a dichotomy between groups focused on coastal resources and groups focused on inland resources. Feary (1989) suggests the hinterland groups did not have access to the south coast, but exploited locally abundant resources. Hence, evidence of camp sites could be expected in a wide range of locations reflecting opportunistic use of widespread local resources. Larger base camps could be expected to occur on the boundary between resource zones (e.g. swamp and forest) or adjacent to major watercourses (Feary 1989). Lilley (1984), suggests that for the subcoastal lowlands and uplands of south-east Queensland, group size varied in response to seasonal availability of key resources. In periods of high rainfall, small mobile groups dispersed across the foothills where temporary water was available, in the process gaining access to resources of the upland, lowland and aquatic zones (Lilley 1984).

Byrne (1987), in a study of Aboriginal usage of New South Wales rainforests, forwarded a general model suggesting use of the upland forests along the north coast was largely transitory in nature, by small mobile groups of people using watercourses and ridgelines as avenues for movement.

Estimates of population density are difficult to determine. Coleman (1982) estimated between 1.5 and 3 persons occupied one square kilometre of land in the coastal zone. Brayshaw estimated population density for the coastal zone was 1.5 persons per square kilometre (Davies 1991). Belshaw (1978) estimated population densities of one person per 0.4 - 2.6 square kilometres in the coastal plain and only 1 person per 5 square kilometres in the foothills. Hence, population density within the current study area may have been relatively low, particularly in comparison with the coastal zone.

The coastal and riverine zones contained abundant food resources. Ethnohistorical observations along the lower Clarence Valley record exploitation of the following food sources in the open forest and rainforest - a variety of mammals (including pademelons, opossum, wallabies, flying fox, koala bears, bandicoot and kangaroos), birds (including brush turkey, pheasant, pigeon, emu, owl, cockatoo and parrots) and food plants (including yams, fern roots, cunjevoi, palm hearts and tamarind (McBryde 1982:32). A similar range of food sources may have been exploited in the escarpment ranges of the current study area, depending upon their local availability.

The material culture of the local people would have included a variety of items made from bark, other components of plants, stone, bone or other animal components (e.g. fur), including shields, clubs, spears, digging sticks, boomerangs, water containers, canoes, rafts, message sticks, clapping sticks, spearthrowers, bark and vine cords, huts, netted and woven dilly bags, bone tools, stone tools, fur belts and cloaks (McBryde 1974). In the archaeological record few of these items survive. Stone is the material most frequently represented in sites identified in the north coast forests.

### 4.2 Aboriginal History

Rich (1989c), in a study of Aboriginal history in north-eastern New South Wales, identified a number of stages and themes in the history of contact between Aboriginal people and the non-indigenous settlers.

Initially, contact was often friendly, but frequently degenerated into violent clashes. Cedar getters often used Aborigines as cedar spotters and then as labourers (Sullivan 1978). When cedar supplies were diminished, settlers moved in and widespread clearing of land along river valleys and later further upstream in mountainous country ensued (Byrne 1987). After the passing of the Robertson Land Acts in 1861, contact between Aboriginal and non-Aboriginal people intensified, which resulted in systematic dispossession of Aboriginal people from their land. After a period of time, which included violent resistance, Aboriginal people began coming into settlements and became economically dependent on the settlers. Aboriginals were often employed as stockmen, shepherds and servants on grazing properties (Rich 1989c). This marked the beginning of the fringe-dwelling period which continued well into the twentieth century.

The Aborigines Protection Board was established in 1883 and settled Aboriginal people on reserves and managed stations. In north-eastern NSW 126 reserves were established between 1883 and 1971. Economic circumstances ensured the Aboriginals depended on government rations to survive, and were therefore forced to remain on the reserves. During this period children were removed from their families and placed with European families, in order that they could avoid the lifestyle of an Aboriginal family. The replacement of the Aborigines Protection Board with the Aborigines Welfare Board in 1937 marked the commencement of assimilationist policies designed to integrate Aboriginal people into non-Aboriginal society (Rich 1989c).

Following from the assimilationist era was a movement towards Aboriginal self-determination. This involved recognition of the rights and ability of Aboriginal people to determine their own future. Moves towards Aboriginal self-determination have culminated in the current process of reconciliation, which is based on the concept of equality between Aboriginal and non-Aboriginal people (Smith 1993:27).

### 4.3 European History

The non-indigenous history of the Three Year Study Area is primarily related to three activities - grazing, mining and forestry. In the late 1830's the first recorded journey by a European across the Dorrigo Plateau was made by Richard Craig, an ex-convict (Comber 1992:49). Squatters and cedar getters were the next to have an impact upon the area. In the 1840's and 1850's squatters took up land in less densely timbered areas west and north of the Dorrigo Plateau (Comber 1992). From the 1860's through to 1884 the McDougall family aquired land for grazing, including part of East Chaelundi. A number of other squatters and settlers moved into the district. The grazing and settlement related activities have resulted in a relatively low level of disturbance in Chaelundi, from fencing, minor ringbarking and the building of huts and yards (Curby 1994). East Chaelundi has been grazed uninterrupted from at least the 1870's (Curby 1994). In the Wild Cattle Creek and Ellis sections of the study area, disturbance from settlement has been more intensive, particularly around the villages of Briggsvale, Cascade and Billys Creek.

Mining activities were also significant during the European settlement of the Dorrigo Plateau. Gold was discovered north of the study area at Quart Pot Creek in 1871, resulting in a minor gold rush (Curby 1994). Mining conditions were difficult and the rewards low. The documentary evidence for mining within Chaelundi State Forest is extensive, but there appears to have been minimal direct activity within the East Chaelundi study area (Curby 1994). Alluvial miners worked Chandlers Creek, but the gold found was only sufficient to pay for rations.

Timber getters were also amongst the earliest non-Aboriginal settlers of the area. Michael Clogger is documented as having established a camp at Bostobrick in 1857, which opened the way for extensive cedar cutting on the Dorrigo Plateau in the latter half of the nineteenth century (Comber 1992:50). Small timber camps were established on the Plateau but transporting the timber out remained the largest problem. The first road from the west was established in the 1870's and connected Armidale to Tyringham (Comber 1992:50). Cedar logs were then taken to Armidale by teams of horses or oxen, although some loggers took their timber to Grafton. By the 1890's a rough track had been made down the steep escarpment to Bellingen where logs could be hauled to the river (Comber 1992:50). To overcome the problem of transportation a railway was constructed between Dorrigo and Glenreagh. Construction commenced in 1914 and was completed by 1927. Eventually, improved road transportation undermined the viability of the railway and services were suspended in 1972 (Comber 1992:51).

Several timber tramways were constructed by sawmillers to transport timber to the mills, mostly in Wild Cattle Creek State Forest. In 1923 a sawmill was established by Briggs at Briggsvale and around the same period Earp, Woodcock, Beveridge and Company established a mill at Cascade, along with more tramway lines. In the parts of Ellis and Clouds Creek State Forests within the current study area, logging commenced more recently in the 1930's (Comber 1992:19). The Wild Cattle Creek and Ellis forests have therefore been extensively logged during this century.

In direct contrast, timber getting activities in East Chaelundi have been minimal. The area is officially considered unlogged by State Forests, which effectively means the area has not been logged since the State Forests were dedicated in the 1970's and 1980's. However there is substantial evidence that East Chaelundi has been logged spasmodically since the 1870's (Curby 1994). There is circumstantial evidence that logging incidental to the grazing and mining industries occurred, such as to obtain wood for huts, yards, fence posts and as a fuel for use in mines. Commercial logging for cedar and later hoop pine probably dates to the 1870's (Curby 1994). However, no large scale logging has taken place, in contrast to the other forests of the current study area.

## 5. ARCHAEOLOGICAL CONTEXT

In this section, the results of the preliminary archaeological survey of the Management Area by Comber (1992) are discussed, along with brief details of surveys conducted within the general region and similar studies of other north coast State Forests. The aim is to construct a predictive model of site location, comprising predictive statements of the site types likely to be located within the study area and where they are likely to be located (e.g. topographically and with regard to other environmental factors such as distance to water, etc).

### 5.1 Previous Archaeological Research

A number of archaeological surveys have been conducted within the vicinity of the current study area. These have included projects for research, small-scale developments (extraction pits, residential areas), linear developments (telecommunication cables, electricity transmission lines) and broader regional studies (State Forest Environmental Impact Studies). An outline of surveys previously conducted within the Dorrigo Management Area, the most relevant studies in the general region and studies of adjacent State Forest Management Areas are presented below.

#### 5.1.1 Previous Archaeological Surveys Within the Dorrigo Management Area

Within the Dorrigo Management Area, two archaeological surveys and one anthropological investigation, all commissioned by State Forests, have previously been undertaken.

Collins (1991) conducted an archaeological survey of Compartments 180, 198 and 200, located in Western Chaelundi State Forest, adjacent to Guy Fawkes River National Park. During 78 person hours of surveying, no archaeological sites were located within the 561 ha area. Collins (1991) sampled the range of landscape and vegetation units within her study area, however the survey was restricted by very low surface visibility. On the basis of these results, Collins (1991) concluded that the potential archaeological resource of the area was minimal.

Dallas Donnelly (1991) reports on an anthropological investigation of Chaelundi Compartments 180, 198 and 200. The report is based on consultations between Mr Ray Kelly (NPWS) and Mr Eric Webb (Grafton-Ngerrie LALC) with Aboriginals living in the Nymboida, Armidale, Guyra, Glen Innes, Newton Boyd and Marengo areas. Although the investigation was specifically focused on the three Compartments, Aboriginal informants would often discuss other areas within the wider region.

As a result of the tremendous disruption to traditional Aboriginal life and substantial modifications to the fabric and nature of their society which occurred after European settlement, knowledge regarding cultural sites or traditional use of the Dorrigo Plateau is limited. Donnelly (1991) concludes there is no evidence of any areas of Aboriginal significance within Chaelundi Compartments 180, 198 and 200. However, several informants provided information on sites of anthropological significance within the region, including at Chaelundi Mountain and Mount Hyland. Mention was also made of the existence of other sites of anthropological significance, around the former Nymboida Mission, near Glenreagh and at 'Chinaman's Siding' (Donnelly 1991).

Comber (1992) undertook an Aboriginal and historical archaeological survey of the Dorrigo Management Area, for inclusion within the withdrawn EIS. The total study area was approximately 99 493 ha in size and excluded the Chaelundi Compartments previously reported on by Collins (1991). Combers' study brief included requirements to sample the MA, to develop a predictive model for the location of sites and to provide management recommendations to State Forests on the basis of the predictive model and survey results.

Comber (1992) notes that the project budget and time were constraining factors. She devised a sampling strategy to enable coverage of several ridgelines and creek locations. Surface visibility and ground disturbance conditions were used to refine the selection of ridgelines to those containing lightly graded tracks. The following tracks within Comber's (1992) study area were inspected for Aboriginal sites; Quartz Road, Red Herring Fire Trail, Frenchmans Ridge and Stockyard Fire Trail (Chaelundi SF); Orange Trees Road and Moses Rock Road (Cascade Group); and Moonpar Road, Moonmerrie Road and Mills Road (Dundurrabin Group). Hence, the survey was concentrated on eastern Chaelundi State Forest and along existing vehicle tracks along ridgelines. 250 person hours were spent on the field survey, which includes an historical sites survey component, in addition to the Aboriginal sites survey. For more detailed information on the trajectories surveyed the reader is referred to Comber's (1992) report.

Thirteen Aboriginal sites and two isolated artefacts were located by Comber (1992) (Appendix 5d). The sites include eleven low density artefact scatters, one lithic quarry and one scarred tree. The two isolated finds and sites Frenchmans Ridge 1 and 2, Stockyard Creek 1, 2 and 3, and Red Herring Hill 1 are located within the East Chaelundi portion of the current Three Year Study Area. Site Moses Rock Road 2 is located on the border of the current study area in Wild Cattle Creek State Forest. All of the artefact scatters are situated on level ground along ridgelines, in settings of dry Eucalypt forest. Comber (1992) concludes that these sites confirm Byrne's model of small, highly mobile groups of people utilising the ridgelines as corridors for movement. She suggests that the small nature of the sites' contents indicates single stone knapping events rather than habitation sites (Comber 1992:40).

While acknowledging that biases towards ridgelines existed in the survey strategy, Comber (1992) made the following predictive statements based on the results of her survey and background analysis:

- artefact scatters would be likely to occur in saddles along ridgelines and on spurs;

- sites are likely to be located on level elevated ground adjacent to watercourses. However, few such areas were sampled during Comber's survey and surface visibility was very low or ground disturbance high, from reworking of sediments by flooding;

- ridgeside slopes were not examined, but contain some potential for scarred and carved trees in unlogged areas and occupation shelters where suitable geological formations exist (Comber 1992). However, there is no evidence to substantiate the claim that scarred or carved trees are more likely to occur on ridge slopes, and considering the natural rate of attrition of trees, the potential for these sites to occur is probably lower than Comber states. In addition, the potential for occupation shelters is also overstated by Comber, as few suitable geological formations are likely to exist within the study area.

- natural and ceremonial sites may occur at any location within the study area (Comber 1992). However, considering the history of disturbance, these site types are highly unlikely to occur in logged forests, although there is some potential for them to occur in the unlogged Chaelundi Forest.

Brief descriptions of the sites located within the current Three Year Study Area are included in section 5.2. Comber's (1992) significance assessment of the sites within the current study area



there (Navin & Officer 1990). Navin and Officer (1990) suggest many more sites are likely to be located on the banks of watercourses and alluvial flats, but that deposition of sediments has rapidly buried these sites, rendering them undetectable.

Optus Communications have recently installed an optic fibre cable between Sydney and Brisbane. Kuskie (1992a, 1992b, 1993a, 1993b) investigated the proposed route on the north coast. Between Coffs Harbour and Grafton the Optus cable route follows the Orara Valley, north of the electricity transmission line surveyed by Navin and Officer (1990). Four artefact scatters and three isolated artefacts were located, lending support to Navin and Officer's (1990) proposal that inland site densities are higher than previously thought.

Godwin (1983) surveyed areas on the eastern margin of the New England Tableland, east and north of Walcha. The area consisted of heavily dissected foothills intervening between the Tablelands and coastal plain. Godwin (1983) suggests the rivers may have been used as access routes between the coast and hinterland or they may have been extensively or intensively exploited on a seasonal basis.

Within the broader region a number of more extensive studies have been conducted. McBryde (1974) produced a regional study of the Clarence valley. A rock shelter at Seelands, near Grafton, was excavated and dated to 6400±300 BP (Before Present). This remains the oldest dated evidence for human occupation presently known along the north coast (Navin & Officer 1990). Stone artefacts were present throughout the deposit and bone remains indicate a substantial portion of dietary requirements were met through a broad-based inland economy (McBryde 1974). A rockshelter at Blaxlands Flat, south of Grafton, was dated to between 1030 BP and 1280 BP (McBryde 1974). McBryde (1974) observes differing stone tool assemblages between coastal and tableland sites from the period 5 000 BP onwards. On coastal sites assemblages are characterised by unifacial pebble tools, ground-edge artefacts, scrapers, fabricators, use-polished edges, associated with some backed blades. In contrast, the tablelands site assemblages include backed blades, burins, scrapers, eloueras, fabricators and ground-edge tools, with backed blades comprising between 40 - 70% of retouched implements (McBryde 1974:336). McBryde (1974) questions whether this perceived difference represents a cultural boundary or is due to the assemblages being adapted for exploitation of different environments.

Byrne (1983) conducted a wide ranging review of Aboriginal archaeology in north-east New South Wales for the National Parks and Wildlife Service. Byrne (1984, 1987) also made detailed studies of Aboriginal usage of rainforests within NSW. Bowdler (1983) reported to the Forestry Commission on Aboriginal sites within the Crown-timber lands of NSW. Byrne (1986), reporting on a heritage study in the Shire of Maclean, suggests in the upland zones landuse was dominated by small and highly mobile groups of people, exploiting relatively dispersed subsistence resources of the region through hunting and gathering. Lines of movement would have been along the ridgelines or level floors of gullies and valleys, which afforded the easiest access. Byrne (1986) suggests occupation was more concentrated in the coastal zone, but that to date, most archaeological surveys have been conducted there.

The available evidence along the north coast indicates exploitation was focused on the abundant subsistence resources of the coastal and riverine zones over the past 6000 years, when the sea level stabilized at its current level. Fish and animal bones from numerous species, along with various shellfish, have been recovered from excavated sites in these zones. A rich ceremonial life is evidenced by the numerous ethnohistorical observations and known natural and mythological sites, bora/ceremonial grounds and carved trees. However, a number of reports indicate utilisation of the hinterland hills and ranges may have been more extensive than previously recognised. Sites in these zones tend to be focused along the ridgelines and creek and river valleys (e.g. Navin & Officer 1990). Artefact scatters are the most common site type recorded for the inland areas and are most frequently identified occurring along ridgelines (including hillocks and spurs) and adjacent to watercourses (e.g. on river terraces, alluvial flats or low spurs and basal slopes). These results indicate artefact scatters will be the most common site type within the current study area and indicate the likely topographical locations in which they will occur.

### 5.1.3 Studies of Other State Forest Management Areas

As a component of the on-going programme to obtain Environmental Impact Statements, State Forests have commissioned archaeological assessments of a number of Management Areas within New South Wales. In the north coast region, studies have recently been completed by Hall and Lomax (1993a, 1993b) of the Grafton and Casino Management Areas, Hall (1992) of the Glen Innes MA, Davies and Stewart-Zerba (1993) of the Coffs Harbour/Urunga MA, Byrne (1993) of the Tenterfield MA, Smith (1993) of the Urbenville MA, Collins and Morwood (1992) of the Wingham MA and Packard (1992) of the Kempsey and Wauchope MA's.

These surveys have generally adopted similar methodologies, with survey coverage across the range of toposequences and land systems present, to obtain an environmentally representative sample which enables testing and refinement of a predictive model of site location. The overwhelming majority of survey coverage has taken place on vehicle tracks or other areas of reasonable surface visibility caused by human or natural processes of disturbance. The primary difference between the current study and other Management Area studies is the present focus on old growth forests and inspection of the natural ground surface off vehicle tracks. Artefact scatters have been the most frequently recorded sites in these MA surveys. In terms of linear kilometres surveyed, the number of artefact occurrences per linear kilometre is 1.4 in the Kempsey/Wauchope MA's, 1.7 in the Casino MA and 1.8 in the Grafton MA (Hall 1993b). As Hall and Lomax (1993a) observe, every forested region appears to contain a low density of artefact scatters.

The most relevant studies to the Dorrigo Three Year EIS are those of the Coffs Harbour/Urunga MA adjacent to the east and south and the Grafton MA immediately to the north. Davies and Stewart-Zerba (1993) surveyed trajectories across four land systems (Lowland Hills, Coastal Ranges, Ranges and Escarpment Ranges) within the Coffs Harbour/Urunga MA. Ten artefact scatters and eleven isolated artefacts were located, for a total of 116 artefacts. Artefact occurrences were located in all four land systems, with the majority of artefacts being located within the combined Ranges and Escarpment Ranges zone, at a density of 0.19 artefacts per $100m^2$. This result cannot be used for comparison with the current study, as different procedures of calculating effective survey coverage may have been adopted. Artefact occurrences generally were situated on level to gently sloping terrain, on saddles and hillocks along ridgelines and in close proximity to water sources. Artefact occurrences were distributed across most altitudes and without any bias towards soils or geology (Davies & Stewart-Zerba 1993).

In the Ranges and Escarpment Ranges, Davies and Stewart-Zerba (1993:70) had predicted that subsidiary ridgelines with a gradual gradient were most likely to have artefact occurrences along the ridge spine, with higher density sites tending towards the valley end of ridgelines, predictions they considered to be substantiated by their survey results. Davies and Stewart-Zerba (1993:70) also predicted that sites along dominant ridgelines would be small and reflect transitory movement and that unlogged forests may contain undisturbed sites. The prediction of undisturbed sites in unlogged forests is questionable, as natural processes are likely to disturb artefact scatters in these locations. No artefact occurrences were located in unlogged forest, which may be a result of the virtual absence of survey coverage of those areas.

The Grafton Management Area studied by Hall and Lomax (1993a) is 180 000 ha in size. Escarpment Ranges comprised 60% of the study area, including portions of unlogged forest. This land system occurs adjacent to the current study area. Hall and Lomax (1993a:29) predicted that for the Escarpment Ranges, artefact scatters of varying size would occur along the ridgelines and drainage lines, reflecting movement between the tablelands and lowlands and exploitation of local resources. The largest sites would be expected along the major watercourses. The occurrence of lithic quarries and reduction sites was expected to be widespread and related to the distibution of outcrops of suitable stone material.

Trajectories surveyed were chosen on the criteria of maximum surface visibility and minimum ground disturbance. Hence, most trajectories were of unformed vehicle tracks. 50 artefact occurrences containing a total of 361 artefacts were located. In the Escarpment Ranges land system, 32 artefact occurrences were located, at an average artefact density of 3.1 artefacts per $100m^2$ (Hall & Lomax 1993a). Hall and Lomax (1993a:56) conclude sites in this land system are strongly focused on narrow, linear toposequences sloping at gradients less than ten degrees, particularly ridgelines and low spurs near drainage lines. On ridgelines, they note site location is strongly correlated with high and low points (e.g. hillocks and saddles). Hall and Lomax (1993a:66) observe that artefact densities were higher along dominant ridgelines than subsidiary ridgelines, which they interpret as reflecting their function as regional pathways. The largest and most complex sites were found in the Ranges and Escarpment Ranges. One large base camp was located in a major valley, as predicted. However, one large, complex site was located further than one kilometre from the nearest non-perennial water supply and one other such site was located on a low spur adjacent to an intermittent stream. Hall and Lomax (1993a:66) postulate this site was only inhabited during summer when water was available.

### 5.2 Previously Recorded Sites Within the Study Area

Prior to Comber's (1992) survey, no Aboriginal archaeological sites were recorded within the current Three Year Study Area. Comber (1992) recorded one lithic quarry, five artefact scatters and two isolated artefacts within the East Chaelundi portion of the current study area and one artefact scatter on the border of Wild Cattle Creek State Forest (Appendix 5d). These sites are briefly described below, however the reader is referred to Comber (1992) for a more comprehensive report.

STOCKYARD CREEK 1: An artefact scatter consisting of two stone artefacts, located at grid reference 453700:6685800 on the Nymboida 1:25 000 topographic map. It is situated on a fire trail along Stockyard Ridge. The site appears to coincide with the location of site ST7/1 identified during the current survey.

STOCKYARD CREEK 2: An artefact scatter consisting of seven stone artefacts, located at grid reference 452500:6684000 on the Nymboida 1:25 000 topographic map. It is situated on a fire trail along Stockyard Ridge, in a saddle. Surface visibility was very low off the vehicle track. One quartzite and six chert artefacts were recorded.

STOCKYARD CREEK 3: An artefact scatter located at grid reference 452400:6683600 on the Nymboida 1:25 000 topographic map. It is situated on a fire trail along Stockyard Ridge, in a saddle. Time restrictions prevented recording of the site, however Comber (1992:35) notes it is a low density scatter extending for approximately 200m along the track and included artefacts made from chert and several backed blades.

FRENCHMANS RIDGE 1: An artefact scatter consisting of over thirty artefacts, located at grid reference 449500:6685000 on the Guy Fawkes River 1:25 000 topographic map. It is situated on a fire trail along Frenchmans Ridge. The site is located in close proximity to site FR5/5 recorded during the current survey and probably forms part of the same site complex, along with site Frenchmans Ridge 2.

FRENCHMANS RIDGE 2: An artefact scatter consisting of fifteen artefacts, located at grid reference 449650:6683000 on the Guy Fawkes River 1:25 000 topographic map. It is situated on a fire trail along Frenchmans Ridge, in a saddle. The site is located in close proximity to site FR5/5 located during the current survey and probably forms part of the same site complex, along with site Frenchmans Ridge 1. Comber (1992:38) identifies most of the artefacts as being made from chert.

ISOLATED FIND 1: An isolated artefact located at grid reference 451700:6686000 on the Guy Fawkes River 1:25 000 topographic map. It is situated on a fire trail along Frenchmans Ridge. The artefact corresponds to where site FR1/1 was located during the current survey.

ISOLATED FIND 2: An isolated artefact located at grid reference 454000:6686300 on the Guy Fawkes River 1:25 000 topographic map. It is situated on a fire trail along Frenchmans Ridge. The artefact is located in close proximity to the isolated artefact FR1/2 and site FR1/1 located during the current study and probably forms part of the same site complex.

RED HERRING HILL 1: A lithic quarry located at grid reference 451200:6678450 on the Chaelundi 1:25 000 topographic map. Comber (1992:33) describes the site as:

> "Outcrops of meta-basalt, which grades through from fine to course grained, outcrops on either side of the track (*Red Herring Fire Trail*). This outcrop shows evidence of low density flaking. On the northern side of the track, approximately 100m from the track, a small flaking floor could be identified. From the large size of the debitage it would appear that axe blanks were being manufactured at this site, although no axe blanks were found. Three artefacts were found on the track. . . . The low density of use at this site indicates that this quarry site was not regularly utilised, rather it may have been utilised on only a few occasions. Ground visibility on the track was about 50 - 60%. Off the track, in the vicinity of the quarry and associated debitage, ground visibility was about 10 - 20%."

This site probably forms part of the lithic quarry site RH1/1 recorded during the current survey, however the sample Comber recorded is located on a different section of Red Herring Hill to that surveyed by the consultant.

MOSES ROCK 2: A heavily disturbed artefact scatter consisting of seven stone artefacts, located at grid reference 475080:6667750 on the Clouds Creek 1:25 000 topographic map. It is situated on a saddle on Moses Rock Road. This site is the only one previously recorded in the Wild Cattle Creek State Forest.

Of the seven artefact occurrences recorded by Comber (1992) within the Three Year Management Area, the locations of three correspond to artefact occurrences recorded during the current survey; Comber's Stockyard Creek 1 equates to site ST7/1, Isolated Find 1 equates to site FR1/1 and the lithic quarry Red Herring Hill 1 equates to RH1/1.

Comber (1992) has described a number of artefacts as being composed of chert, basalt or meta-basalt raw materials. However, during the current survey, few genuine chert artefacts or basalt artefacts were noted. It is considered highly probable Comber (1992) confused chert and basalt with the highly siliceous metasedimentary rocks (e.g. argillite, greywacke, mudstone), which can have a similar appearance that varies considerably with the degree of weathering, and are naturally occurring throughout the study area.

### 5.3 Predictive Model of Site Location

A predictive model of site location is constructed to identify areas of high archaeological sensitivity (i.e. locations where there is a high probability of an archaeological site occurring), so that State Forests can have a basis for planning and management of Aboriginal sites. Predictive modelling involves reviewing existing literature to determine basic patterns of site distribution. These patterns are then modified according to the specific environmental characteristics of the study area to form a predictive model of site location. A sampling strategy is employed to test the predictive model and the results of the survey used to confirm, refute or modify aspects of the model (cf. Hall & Lomax 1993a:2).

The use of land systems and environmental factors in predictive modelling is based upon the assumption they provided distinctive sets of constraints which influenced Aboriginal land use patterns. Following from this is the expectation that land use patterns may differ between each zone, because of differing environmental constraints, and that this may result in the physical manifestation of different spatial distributions and forms of archaeological remains (Hall & Lomax 1993a:26).

The predictive model is based on information from the following sources, which have been outlined in the preceding sections:

- identification of land systems, landscape units and relevant environmental variables
- previous archaeological surveys conducted within the study area and general region
- previously recorded sites within the study area and general region
- known density of sites in the land system
- traditional Aboriginal land use patterns.

The Dorrigo Three Year Study Area is located entirely within the Escarpment Ranges land system. Elevation varies between over 1000m ASL (in the western part of Ellis State Forest) and 250m ASL at some of the major watercourses. Wild Cattle Creek State Forest typically has an elevation between 600 - 750 m ASL, while Ellis State Forest generally is elevated between 700 - 900 m ASL and East Chaelundi between 500 - 800 m ASL (Sinclair Knight 1992). East Chaelundi and the western portion of Ellis State Forest can broadly be classified in the 'Hills' landform pattern, with average local relief varying between 90 - 300 m. The hills area is heavily dissected by drainage channels, with narrow linear ridge tops and valley bottoms, separated by moderate to steep slopes. The 'Low Hills' landform pattern includes areas of lightly dissected local relief varying between 30 - 90 m. Low Hills mostly occur in the eastern part of the Ellis forest block and throughout the Wild Cattle Creek block. Ridgelines tend to be broader, as do stream flats and lower slopes. Slopes are generally gentle to moderate in nature.

#### 5.3.1 Potential Artefact Occurrences

Based on the information outlined in the preceding sections, including the environmental context of the study area and known patterns of site distribution, the following site location predictions can be made for the Escarpment Ranges.

ARTEFACT SCATTERS: Artefact scatters are a common site type in the region. An artefact scatter is defined as two or more stone artefacts within one hundred metres of each other. An artefact scatter may consist of surface material only or also contain a sub-surface deposit. Artefact scatters may represent the evidence of camp sites, where everyday activities were carried out, or transitory movement through the landscape. Detection of artefact scatters depends upon conditions of surface visibility and ground disturbance and whether recent sediment deposition has occurred. These sites vary considerably in size, contents and significance. Artefact scatters are the most common site expected within the study area. They are expected to occur along ridgelines, particularly in areas of low gradient and possibly with a bias towards high and low points, such as ridge hillocks and saddles. Artefact scatters would also be expected to occur along drainage lines, particularly on elevated, low gradient landscape units adjacent to watercourses, such as low spurs. Artefact numbers and densities may be higher in sites adjacent to major watercourses.

BORA GROUNDS/CEREMONIAL SITES: Bora grounds are a type of ceremonial site associated with initiation ceremonies. They are usually made of two circular depressions in the earth, sometimes edged with stone. Bora grounds generally occur on soft sediments in river valleys, although occasionally they are located on high, rocky ground where they may be associated with stone arrangements (McBryde 1974). The potential for bora grounds to be located within the study area is considered to be minimal, given the history of disturbance in the logged forests and likelihood that such an obtrusive site type would have previously been identified if it occurred within Chaelundi.

BURIALS: Human remains tended to be placed in hollow trees, caves, shell middens or sand deposits (Bonhomme 1988:14). The probability of detecting burials during fieldwork is extremely low. Typically burials are identified when eroding out of sand dunes or creek banks, or when disturbed by development. Aboriginal communities are strongly opposed to the disturbance of burial sites. The potential for burial sites to occur within the study area is considered to be extremely low. Few burials have been recorded in areas of rugged terrain and the potential for caves to be located within the study area is low.

CARVED TREES: Carved trees have geometric designs carved into them and are associated with ceremonial grounds or burial sites (Bonhomme 1988:14). They are a rare site type because of the extensive clearing of vegetation that has occurred over much of the north coast. Despite the eastern Chaelundi portion of the current study area consisting of unlogged forest, the potential for carved trees is considered to be minimal because of the natural attrition rate of mature trees and distribution of previously recorded examples on the north coast (all having been in the coastal plain).

ISOLATED ARTEFACTS: An isolated artefact is an occurrence of a single artefact further than one hundred metres from any other artefacts. It may represent a single discard of stone, or is the only visible evidence of an artefact scatter which cannot be detected because of low surface visibility.

LITHIC QUARRIES: A lithic quarry is the location of an exploited stone source (Hiscock & Mitchell 1993:32). Sites will only be located where exposures of a stone type suitable for use in artefact manufacture occurs. Reduction sites, where the early stages of stone artefact manufacture occur, are often associated with quarries. A primary reduction site is where the initial production of artefact blanks occurs, before the tools are used and further modified (Hall 1993a:21). Binns and McBryde (1972) recognised shingle beds as being a source of raw materials in the Clarence and Orara River valleys. The Red Herring Hill quarry is one example of a flaking quarry reduction site within the current study area. Lithic quarry sites have the potential to occur within the study area, where-ever suitable exposures of metasedimentary stone are located.

MYTHOLOGICAL/TRADITIONAL SITES: Mythological sites, or sites of traditional significance to Aboriginal people, may occur in any location. Often natural landscape features are the locations of mythological sites. Other sites of contemporary significance include massacre sites (the location of violent clashes between early settlers and local Aboriginals) and contact sites. Consultation with local Aboriginal communities is essential to identify these sites. After discussions with Mr Trevor Donnelly of the Grafton-Ngerrie Land Council, it is considered the potential for these site types within the study area is generally low, however Aboriginal people in the region may possess some knowledge about usage of the area.

SCARRED TREES: Scarred trees contain scars caused by the removal of bark for use in manufacturing canoes, containers, shields or shelters. Scarred trees occur most frequently in riverine areas and are less common in upland forests, especially where tree felling and bushfires have destroyed most mature trees. Hence, the potential for scarred trees in the logged forests is extremely low. In the eastern Chaelundi forest there is a greater density of mature trees than in the logged forests. Hence, the potential for scarred trees is marginally higher. However, considering the natural rate of attrition, the overall potential for scarred trees is considered to be minimal.

STONE ARRANGEMENTS: Stone arrangements include circles, mounds, lines or other patterns of stone arranged by Aboriginal people. Some were associated with bora grounds or ceremonial sites and others with mythological or sacred sites. Hill tops and ridge crests which contain surface stone and outcrops are the most likely locations for stone arrangements. A stone arrangement is located on Mt Chaelundi, near the current study area. The potential for stone arrangements within the logged forests is considered to be extremely low, because of the history of ground disturbance. In the unlogged Chaelundi forest, there is a moderate - low potential for stone arrangements.

## 6. METHODS

### 6.1 Methodological Background

The current methodological approach follows that used in similar studies of north-eastern New South Wales forests by Packard (1992) and Hall and Lomax (1993a, 1993b). Previous archaeological surveys in the north-eastern forests of New South Wales have identified a virtually continual distribution of artefacts across the landscape, at varying densities. These results lend support to arguments that the landscape should be viewed as an archaeological continuum in which sites represent points where higher frequencies of activities have occurred (Foley 1981). The definition of 'site' is often an arbitrary one, which offers benefits for planners and cultural resource managers, but creates various theoretical/analytical problems for archaeologists. In New South Wales, an artefact scatter is defined by the NPWS as being two or more artefacts within 100m of each other and further than 100m from any other artefact. This definition of an artefact scatter site is followed here. However, the analytical usefulness of the site concept to archaeologists has long been questioned (e.g. Dunnell & Dancey 1983). It has been advocated that the individual artefact is a more useful basic unit of analysis, an approach that has been used by Packard 1992, Hall & Lomax 1993a, *et al*, in the north-eastern NSW forests and is adopted in this study. The term 'artefact occurrence' is used to describe both sites and isolated artefacts.

Previous surveys of north-eastern NSW forests have tended to focus coverage on areas of reasonable ground surface visibility. Efforts to use sampling strategies on the basis of 1 x 1km square quadrats have encountered difficulties in coverage, because of limited ground surface visibility (e.g. Collins & Morwood 1991). Eventually such survey methodologies have had to be refined to focus on areas of visibility (vehicle tracks, recently burnt areas). The most parsimonious method is therefore to focus the survey on areas of surface visibility as the primary survey unit and afterwards calculate the extent to which the sample obtained is representative of the study area environment (Hall & Lomax 1993a:32). During the field survey a continual assessment of coverage and a process of feedback can be used to modify selection of areas for inspection, in order to obtain a level of representative coverage consistent with the terms of the study brief.

### 6.2 Sampling Strategy

The basic sampling strata adopted in forest studies is the land system. The entire current study area lies within one land system, the Escarpment Ranges. The land system is sub-divided into sub-strata, on the basis of local variations in the environment which imply slightly different land use and artefact visibility patterns (Hall & Lomax 1993a:32). These sub-strata are termed landform patterns and within the current study area include Hills and Low Hills. Each landform pattern is further sub-divided into a range of toposequence, or landscape elements. For example the Hills landform pattern may be comprised of ridges, upper slopes, mid-slopes, lower slopes, flats and stream channels. This strategy partly follows the classificatory system of McDonald (*et al* 1984), which is used in comparable forest studies (Packard 1992, Hall & Lomax 1993a, 1993b, *et al*).

The current sampling strategy was designed to meet the specific requirements of the study brief; to enable construction and testing of a predictive model of site location (hence the range of landscape units within the toposequence needed to be sampled); concentrate on areas least well represented in the current reserve system (hence a bias in the sample towards low gradient terrain, particularly on ridges but also other level landscape units); conduct at least two thirds of sampling within the unlogged areas (hence a bias in the sample towards the eastern

Chaelundi forests); and direct at least half of the survey effort towards block surveys as opposed to linear transects; and target rarer, more obtrusive site types such as stone arrangements, quarries and scarred trees (hence a large bias in the sample toward natural ground surfaces and a small bias toward areas with potential for more obtrusive site types, e.g. stone outcrops, stands of mature vegetation). Other factors which needed to be incorporated into the sampling methodology included the need to obtain representative coverage for all sections of the study area and to address any concerns and wishes of the Local Aboriginal Land Council representative (e.g. requests to inpsect particular areas). In addition, the consultant attempted to avoid resurveying those areas inspected by Comber (1992), despite the fact Comber employed a different methodology of surveying and recording which means her data cannot be incorporated into the current analysis. Within the limited time available, it was considered a better overall coverage could be obtained by concentrating inspection on previously unsurveyed areas. The actual Trajectories inspected on the ground were therefore chosen with regard to the aims of the study, the sampling strategy outlined above and logistical factors such as vehicle access.

### 6.3 Survey and Recording Methodology

The survey and recording methodology employed in the current study is similar to that used by (Hall & Lomax 1993a, *et al*) which are based on the earlier work of Packard (1991) and Hall (1992). The approach involves four main tiers; Trajectories, Components, Sites and Artefacts.

Trajectories are the areas selected for field inspection, usually on the basis that reasonable surface visibility exists. A major difference between the current study and previous forest studies is the present focus on surveying non-linear trajectories, particularly off vehicle tracks. A number of recently burnt areas, mostly in East Chaelundi, afforded conditions of reasonable ground surface visibility, which enabled a sufficient sample to be obtained through Trajectories surveyed off vehicle tracks. In areas that aren't burnt, surface visibility is generally so low that the resulting effective coverage of the ground surface is very minimal and insufficient to base predictive statements on. Hence, to a large degree the selection of off-track Trajectories was influenced by the occurrence of recently burnt areas.

Trajectories are comprised of one or more Components (Packard 1991). Components are differentiated on the basis of changes in key environmental variables (e.g. slope, vegetation, toposequence, etc) and variables affecting archaeological visibility (e.g. surface visibility, geomorphological regime). A Component form was completed for each new Component within a Trajectory. For each artefact occurrence a consistent set of environmental information was recorded, to enable site locational analysis to be undertaken (Hall & Lomax 1993a:33). Standardised recording forms used by Hall and Lomax (1993a) and others were used. Examples are included in Appendix 7, preceded by an explanation of the terminology used in Appendix 6. Standard National Parks and Wildlife Service site forms were completed for each artefact occurrence recorded during the survey.

For each Component a percentage estimate of surface visibility was made. In addition, archaeological visibility was estimated, which equates to the area of surface visibility minus that portion of the ground on which artefacts could not be detected because of extensive disturbance or sediment deposition. For example, a formed track may have high surface visibility, but low archaeological visibility, because the upper layers of soil with potential for artefacts have been removed by grading. Estimates of archaeological visibility are more subjective and therefore likely to exhibit greater variation between different observers.

Artefacts located were recorded on the artefact recording form (Appendix 7), for which an explanation of terms is included in Appendix 8. Measurements of length, width and thickness were taken and the artefact type, raw material type, percentage and type of cortex, and any special attributes were recorded.

For the fifteen days of the field survey, the consultant was accompanied by Mr Trevor Donnelly, a representative of the Grafton-Ngerrie Local Aboriginal Land Council. For four days the consultant was also assisted by Mr Roger Hall, State Forests Project Archaeologist.

Three types of Trajectories were inspected; linear transects along vehicle tracks, broad linear transects off vehicle tracks and block surveys of various shapes. Inspection of linear transects on vehicle tracks generally involved the consultant and assistant walking together over the 3-5m width of a track. In the logged forests, very low surface visibility off vehicle tracks frequently constrained the survey purely to the width of the tracks. Inspection of broad linear transects off vehicle tracks generally involved the consultant and assistant walking parallel to obtain coverage of a 10 - 20m wide block. Each fieldworker viewed an area five metres in width. In block surveys off vehicle tracks, the consultant and assistant generally walked parallel at 5 - 10m intervals to enable coverage of a defined block. Area of the block surveyed was either measured before-hand, and the fieldworkers walked parallel to completely cover the defined area, or was measured after the inspection (e.g. fieldworkers walked parallel and the distance and width was calculated afterwards, assuming each person inspected a 5m wide area). Frequently, the shape of the landscape unit or changing surface visibility conditions restricted the size of blocks to irregular shapes.

The reasons for selection of each type of Trajectory are largely related to the nature of the environment, particularly surface visibility, and the general aims of the survey and sampling strategy. For example, limited visibility off vehicle tracks (typical of the logged forests) resulted in the selection of the 'linear transect along vehicle track' method. Broad linear surveys were generally selected off vehicle tracks to enable representative coverage to be obtained, to allow better resolution of site boundaries and site distribution, and to address the differential preservation of sites on and off vehicle tracks. Block surveys were selected to allow for more intensive coverage of a landscape unit, to enable better resolution of site boundaries, to address the differential preservation of sites and to gain a better understanding of site contents. Broad linear surveys allowed a representative sample of off-track areas to be obtained in the unlogged portion of the study area. If the consultants time had been focused purely on block surveys, a representative sample of the study area would not have been obtained, because of the time constraints involved. Consequently, the difference between the three forms of Trajectory are that linear transects will be biased toward locating sites whereas block transects will be biased toward recording site contents. Hence, comparing with other study areas the number of sites located per linear kilometre (as previous consultants have done), is not a viable proposition for the Dorrigo study area. Rather, comparisons with other study areas which involve artefact density are a more appropriate method.

### 6.4 Coverage Analysis

Methods used to analyse the survey data follow those employed by Packard (1992) and Hall and Lomax (1993a) and are comparable to those used in other north-eastern forest studies. The current study however, has focused on obtaining a more intensive survey coverage which will allow for the development of a more refined predictive model. The primary unit of analysis is the artefact. For each environmental unit surveyed, effective surface coverage is calculated and the number of artefacts present within that unit divided into that figure to obtain the artefact density per $100m^2$ of effective coverage. Effective coverage equates to the actual area surveyed (length x width) multiplied by the percentage of archaeological visibility. Hence, a measure of artefact density is calculated which is suitable for internal comparisons within the study area.

The measure of artefact density has to be applied with caution, because an inadequate sample size may bias the results. For example, if effective coverage of one environmental unit is very small, one large site will produce an overly inflated figure of artefact density for that unit. Caution must also be exercised in comparing results with other study areas, because different standards or judgements may have been applied in calculating archaeological visibility.

The current study employs a more intensive sampling methodology and controlled recording techniques than used in Comber's (1992) preliminary study. Comber did not record data for Trajectories surveyed and therefore her results cannot be incorporated into the current analysis.

## 7. RESULTS AND DISCUSSION

### 7.1 Constraints

Several factors acted to constrain the effectiveness of the archaeological survey, including bushfires, conditions of surface visibility and ground disturbance and time. Fieldwork was undertaken over the first three weeks of January, 1994. During this time a number of bushfires broke out in the East Chaelundi portion of the study area and in surrounding forests (e.g. Guy Fawkes River National Park). Areas in which survey Trajectories had been planned, including Red Herring Hill and Ridge were ablaze, in addition to parts of Boundary Creek State Forest adjacent to the study area and forests in close proximity to the Chaelundi Forestry Camp, where the consultants were based. In the interests of safety the consultants were forced to relocate camp at short notice, which reduced the time available for surveying. In addition, the fires on Red Herring resulted in a cover of ash which acted to greatly reduce surface visibility in portions of the study area. Burnt areas generally increase ground surface visibility, but not until after rain has removed the ash cover.

Surface visibility conditions were generally limited in the Ellis and Wild Cattle Creek study area blocks to existing vehicle tracks. Most vehicle tracks in these forests are of a well formed nature, limiting the potential for archaeological sites to exist along them. One day was spent surveying the Ellis block and 3.5 days in the Wild Cattle Creek block. It was difficult to locate areas suitable for surveying which had reasonable ground surface visibility and had not been heavily disturbed by forestry activities.

Distances between Trajectories and the rugged nature of parts of the terrain resulted in a considerable portion of each ten or eleven hour work day being consumed by travelling. Of the fifteen days survey, approximately 162 person hours, or 4.9 hours per person per day, was spent physically inspecting Trajectories. The time constraint also affected the nature of the sample by limiting the number of block surveys which could be undertaken and restricting coverage of areas which were uneconomical to survey (i.e. the travel time involved would have been far greater than the survey time).

### 7.2 Survey Coverage

#### 7.2.1 Trajectories

A total of 49 Trajectories were surveyed (Table 1). The location of each Trajectory is depicted on 1:100 000 topographic maps of the study area in Appendix 4a (Ellis), 4b (Wild Cattle Creek) and 4c (Chaelundi). Coverage was obtained of all State Forests within the study area and of various locations within each forest. Complete survey coverage data is included in Appendix 9.

For the overall study area, the 49 Trajectories were comprised of 258 components for a total effective coverage of 21 946m$^2$. This equates to approximately 0.008% of the 26 000 ha study area. The more intensive nature of this survey compared to other north-eastern forest surveys is apparent, when the effective study area coverage of 0.008% is compared with 0.005% for the Coffs/Urunga MA (Davies & Stewart-Zerba 1993:53), 0.005% for the Urbenville MA (Smith 1993), 0.002% for the Grafton MA (Hall & Lomax 1993a), 0.002% for the Casino MA (Hall & Lomax 1993b) and 0.001% for the Tenterfield MA (Byrne 1993).

Table 1: Survey Coverage

| Trajectory | Number of Components | Sum of Effective Coverage (m2) | Sum of Artefact Occurrences | Number of Artefacts | Artefact Density per 100m2 |
|---|---|---|---|---|---|
| LR1 | 1 | 5 | 0 | 0 | * |
| LR2 | 3 | 36 | 0 | 0 | * |
| SC1 | 4 | 243 | 0 | 0 | * |
| SR1 | 2 | 126 | 0 | 0 | * |
| WF1 | 3 | 970 | 1 | 1 | 0.1 |
| WR1 | 2 | 17 | 0 | 0 | * |
| CR1 | 5 | 135 | 0 | 0 | * |
| EP1 | 8 | 217 | 1 | 1 | 0.46 |
| FCF1 | 1 | 6 | 0 | 0 | * |
| FCF2 | 1 | 270 | 0 | 0 | * |
| FCF3 | 8 | 365 | 0 | 0 | * |
| FCF4 | 4 | 119 | 0 | 0 | * |
| LR1 | 1 | 600 | 0 | 0 | * |
| LR2 | 4 | 1152 | 0 | 0 | * |
| MH1 | 2 | 660 | 0 | 0 | * |
| MH2 | 1 | 480 | 0 | 0 | * |
| MH3 | 1 | 240 | 1 | 32 | 13.3 |
| MR1 | 4 | 640 | 1 | 4 | 0.62 |
| MR2 | 2 | 162 | 1 | 1 | 0.62 |
| MR3 | 4 | 1197 | 0 | 0 | * |
| MR4 | 6 | 186 | 0 | 0 | * |
| PR1 | 3 | 470 | 1 | 6 | 1.28 |
| PR2 | 2 | 39 | 1 | 2 | 5.13 |
| RC1 | 4 | 338 | 0 | 0 | * |
| TR1 | 5 | 1372 | 0 | 0 | * |
| TR2 | 2 | 232 | 0 | 0 | * |
| TT1 | 8 | 133 | 1 | 1 | 0.75 |
| TT2 | 4 | 54 | 1 | 1 | 1.85 |
| FR1 | 6 | 710 | 2 | 67 | 9.44 |
| FR2 | 7 | 638 | 2 | 17 | 2.66 |
| FR3 | 3 | 155 | 1 | 2 | 1.29 |
| FR4 | 10 | 744 | 2 | 23 | 3.09 |
| FR5 | 19 | 1000 | 5 | 41 | 4.1 |
| ST1 | 10 | 1725 | 3 | 6 | 0.35 |
| ST2 | 2 | 272 | 1 | 1 | 0.37 |
| ST3 | 5 | 919 | 1 | 112 | 12.19 |
| ST4 | 4 | 161 | 1 | 79 | 49.07 |
| ST5 | 11 | 247 | 2 | 14 | 5.67 |
| ST6 | 1 | 20 | 1 | 93 | 465 |
| ST7 | 13 | 140 | 2 | 28 | 20 |
| RH1 | 3 | 182 | 1 | 25 | 13.74 |
| RH2 | 2 | 134 | 0 | 0 | * |
| RH3 | 26 | 2309 | 0 | 0 | * |
| RH4 | 20 | 738 | 4 | 243 | 32.93 |
| RH5 | 3 | 101 | 0 | 0 | * |
| RH6 | 4 | 730 | 1 | 123 | 16.85 |
| RH7 | 1 | 40 | 1 | 5 | 12.5 |
| RH8 | 12 | 337 | 2 | 10 | 2.97 |
| RH9 | 1 | 180 | 0 | 0 | * |
| TOTAL | 258 | 21946 | 40 | 938 | MEAN 4.27 |

The survey coverage can be subdivided into results for each study area block. In the Ellis study area block, 6 Trajectories comprised of 15 Components were surveyed, resulting in a total effective coverage of 1 397m$^2$. In the Wild Cattle Creek study area block, 22 Trajectories comprised of 80 Components were surveyed, resulting in a total effective coverage of 9067m$^2$. In the Chaelundi study area block, 21 Trajectories comprised of 163 Components were surveyed, resulting in a total effective coverage of 11 482m$^2$.

The mean artefact density per 100m$^2$ of effective coverage is 0.07 in the Ellis block, 0.53 in the Wild Cattle Creek block and 7.74 in Chaelundi. Mean surface visibility for the total study area was 18%. In Chaelundi it averaged 15%, in the Ellis block 10% and in the Wild Cattle Creek block 24%. Mean archaeological visibility for the total area was 16%. In Chaelundi it averaged 14%, in the Ellis block 9% and in the Wild Cattle Creek block 19%. Higher surface visibility resulted in the Wild Cattle Creek block because most of the Trajectories were constrained to vehicle tracks. Mean artefact density for the overall study area is 4.27 artefacts per 100m$^2$, which is broadly comparable to the density of 3.1 artefacts per 100m$^2$ in the adjacent Escarpment Ranges of the Grafton Management Area (Hall & Lomax 1993a:39).

The results indicate a wide difference between artefact densities in the logged and unlogged forests. Reasons for this variation are considered further below. One possible contributory factor is that there has been an internal inconsistency in calculating archaeological visibility. On face value this may appear to be the case. In five days 9067m$^2$ of effective coverage was obtained in the logged forests, compared to 11482m$^2$ in ten days in the unlogged forests. If the survey was conducted at a similar pace throughout, it could be expected that less effective coverage would be obtained in the logged forests, for two reasons: proportionally less time was spent surveying them; and the majority of Trajectories were on vehicle tracks where archaeological visibility is generally low. However, the difference is largely a result of more time having been taken per square metre to survey the unlogged forest, because of the enormous number of artefacts to record. Comparison of average archaeological visibility (Chaelundi 14%, Ellis 9%, Wild Cattle Creek 19%) indicates that while minor internal inconsistencies in calculating archaeological visibility may have occurred, they are unlikely to have had a significant impact upon the overall result (i.e. that artefact densities are much lower in the logged forests than the unlogged forests).

### 7.2.2 Geomorphological Regime

Effective survey coverage is analysed to determine if the operation of different geomorphological regimes may have biased the results. Eroding regimes are more likely to expose artefacts, whereas aggrading regimes are likely to obscure sites. Of the 21946m$^2$ total effective surface coverage, almost all was of eroding regimes (21268m$^2$), containing 39 artefact occurrences at a density of 4.38 artefacts per 100m$^2$. 206m$^2$ was of aggrading regimes and 472m$^2$ of eroding/aggrading regimes (where the geomorphological status was uncertain). No artefact occurrences were located in aggrading regimes and only one occurrence at the low density of 1.27 artefacts per 100m$^2$ was located in an eroding/aggrading environment. No conclusions can be drawn from this result, because of the insufficient nature of the sample. However previous studies (Hall & Lomax 1993a:40) have revealed that artefact density is under-represented in aggrading environments, which is probably a result of artefacts having been covered by sediment deposition, rather than a genuine absence of archaeological material. High coverage was obtained of eroding regimes because most landscape units are eroding and the survey was focused along ridgeline toposequences, with few depositional landscape units (e.g. creek flats, terraces) identified for inspection within the study area.

### 7.2.3 Inspection for Obtrusive Site Types

One focus of the current survey was on inspecting for more obtrusive site types such as scarred and carved trees, bora/ceremonial grounds, stone arrangements and lithic quarries. The predictive model identified most of these site types as having a minimal to extremely low potential to occur, including within the unlogged forests of eastern Chaelundi.

Hence, numerous mature trees were examined for evidence of scarring, whenever they were identified within or near a survey Trajectory. Stone (particularly argillite) outcrops frequently occurred along the ridgelines and as bedrock in watercourses and these were inspected for evidence of Aboriginal quarrying or artefact reduction, whenever they occurred within or near a Trajectory. The possible presence of stone arrangements and bora grounds was taken into consideration by the field team during the selection and inspection of Trajectories. Mr Trevor Donnelly, representative of the Grafton-Ngerrie Local Aboriginal Land Council, displayed a strong interest in inspecting for obtrusive site types. Mr Donnelly inspected a number of areas for these site types, which for logistical reasons were not recorded as survey Components.

## 7.3 Sites Located

A total of forty sites/artefact occurrences were located during the current survey. These include nine isolated artefacts, thirty artefact scatters (one site associated with a scarred tree) and one lithic quarry/reduction site. These are described in Appendix 10 and the artefacts listed separately in Appendix 11. The location of each site/artefact occurrence is depicted on 1:100000 topographic maps of the study area in Appendix 5a (Ellis), 5b (Wild Cattle Creek) and 5c (Chaelundi). Comber's (1992) previously recorded sites are depicted in Appendix 5d.

For analytical purposes (calculation of artefact densities per $100m^2$ of effective coverage) the forty artefact occurrences are all included. Comber's (1992) survey results could not be incorporated because a different survey and recording methodology was used, in which no data was recorded for areas inspected that did not contain sites. At site RH1/1, the lithic quarry, only a small sample of 26 artefacts was recorded and it is considered its inclusion will not significantly affect density calculations. All artefacts recorded in the other sample areas are included in the results. The artefact scatter component of site RH7/1 (comprising a scarred tree and an artefact scatter), is included in the database and the scarred tree is discussed separately.

The survey almost entirely avoided areas previously inspected by Comber (1992), however some overlap unintentionally occurred (with the exception of the Red Herring Hill quarry, which was specifically revisited). As a consequence, Comber's site Stockyard Creek 1 equates to site ST7/1, Isolated Find 1 equates to site FR1/1 and the lithic quarry Red Herring Hill 1 equates to RH1/1.

During the current survey, one isolated artefact was located in Ellis State Forest, three artefact scatters and three isolated artefacts in Wild Cattle Creek State Forest, one artefact scatter and one isolated artefact in Moonpar State Forest, and the remaining twenty-six artefact scatters (including one scarred tree), four isolated artefacts and a lithic quarry were located in Chaelundi State Forest. When combined with Comber's (1992) sites (exluding those coinciding with sites recorded during the current survey), a total of forty-six site/artefact occurrences are recorded within the Three Year Study Area, comprising thirty-five artefact scatters, ten isolated artefacts, one lithic quarry and one scarred tree. This total is comprised of one isolated artefact in Ellis State Forest, four artefact scatters and three isolated artefacts in Wild Cattle Creek State Forest, one artefact scatter and one isolated artefact in Moonpar State Forest and one

Table 3: Comparison of Survey Coverage and Artefact Density for Topographic Units Between Chaelundi and Ellis/Wild Cattle Creek Blocks.

| | Topographic Unit | Ellis/WCC Effective coverage m2 | Chaelundi Effective coverage m2 | Ellis/WCC artefact density per 100m2 | Chaelundi artefact density per 100m2 |
|---|---|---|---|---|---|
| 1 | crest | 781 | 299 | 0.64 | 36.45 |
| 2 | ridge | 3183 | 5008 | 0.19 | 8.17 |
| 3 | saddle | 1075 | 1211 | 0.09 | 9.5 |
| 4 | ridge hillock | 1470 | 1438 | * | 3.68 |
| 5 | low spur | 1656 | 166 | 0.24 | 97.59 |
| 6 | simple slope | 930 | 1077 | * | 2.32 |
| 7 | upper slope | 874 | 1359 | 0.11 | 0.66 |
| 8 | mid slope | 75 | 289 | * | 2.42 |
| 9 | lower slope | 174 | 23 | * | * |
| 10 | flat | 0 | 612 | * | * |
| 12 | stream/swamp bank | 246 | 0 | 13.01 | * |

Table 4: Effective Coverage and Artefact Density - Landform Patterns in Total Study Area.

| | Landform Pattern | Effective Coverage m2 | Artefact Occurrences | Number of artefacts | Artefact Density per 100m2 |
|---|---|---|---|---|---|
| 3 | hills | 12951 | 27 | 831 | 6.42 |
| 4 | low hills | 7145 | 12 | 75 | 1.05 |
| 7 | rises | 1604 | 0 | 0 | * |
| 8 | escarpment | 246 | 1 | 32 | 13.01 |

Table 5: Comparison of Survey Coverage and Artefact Density for Landform Patterns Between Chaelundi and Ellis/Wild Cattle Creek Blocks.

| | Landform Pattern | Chaelundi Effective coverage m2 | Ellis/WCC Effective coverage m2 | Chaelundi artefact density per 100m2 | Ellis/WCC artefact density per 100m2 |
|---|---|---|---|---|---|
| 3 | hills | 9738 | 3213 | 8.47 | 0.19 |
| 4 | low hills | 1744 | 5401 | 3.67 | 0.2 |
| 7 | rises | 0 | 1604 | * | * |
| 8 | escarpment | 0 | 246 | * | 13.01 |

For each topographic unit, artefact densities in Ellis/Wild Cattle Creek are considerably lower than in Chaelundi. This is also reflected in a comparison of landform patterns. While Chaelundi is generally comprised of Hills and Ellis/Wild Cattle Creek of Low Hills, artefact density in Chaelundi for Low Hills is also considerably higher than for Low Hills in Ellis/Wild Cattle Creek. For the four topographic units along ridgelines (crest, ridge, saddle and ridge hillock), artefact density in Chaelundi averages 8.6 artefacts per 100m$^2$ and in Ellis/Wild Cattle Creek 0.18 artefacts per 100m$^2$. Possible explanations for this marked difference in artefact density between the logged and unlogged forests are discussed in section 7.4.7.

In Chaelundi, artefact densities are higher on Hills than Low Hills, possibly reflecting the greater topographical constraints imposed by narrower ridgelines in the Hills system, whereas in Low Hills ridgelines are broader and artefact distribution can be more dispersed. A broader ridgeline used at the same intensity as a narrow ridgeline would be expected to exhibit lower artefact densities, due to activities and resulting artefact discard being less focused in nature (cf. Hall & Lomax 1993a).

In Ellis/Wild Cattle Creek, the only area of high artefact density was a small sample of the stream/swamp bank unit. This is reflected in a high artefact density for the Escarpment landform pattern. In Chaelundi, an extremely high artefact density occurs on low spurs and ridge crests. However, again the samples were very small, causing the figures to be artificially inflated and in need of treatment with caution.

In Chaelundi, high artefact densities occur along ridges and ridge saddles. Densities on ridge hillocks were relatively lower and on the other toposequence units were substantially lower. These results confirm predictions that sites are likely to occur along ridgelines throughout the study area. Suggestions that densities may be higher on high and low points of the ridgelines were confirmed for saddles, but not supported for hillocks.

### 7.4.2 Slope

Table 6 describes the effective coverage and artefact densities for classes of slope in the study area and Table 7 compares the results between Chaelundi and Ellis/Wild Cattle Creek. Survey coverage was concentrated on areas of low gradient, with minor sampling of steeper gradients. As expected the highest overall densities occurred on level to gently sloping gradients, with a marked decrease in artefact density once slope increases above five degrees. An unusually high artefact density is calculated for slopes between 20 -30 degrees, however it is based on a very small sample and should be discounted. The result can be explained by a strong preference towards level to gently sloping ground for campsites and avenues of movement, and is similar to the results of other studies (e.g. Packard 1992, Hall & Lomax 1993a, Davies & Stewart-Zerba 1993). The number of artefact occurrences also decreases markedly with slope and artefact density. This contrasts with the results of Hall and Lomax (1993a:53) who found in the Grafton Management Area that the number of artefact occurrences did not decline correspondingly with density and slope. Hall and Lomax (1993a:53) suggest this is a result of longer duration activities (e.g. camping) occurring on level ground and activities resulting in the discard of a low number of artefacts occurring on sloping ground.

Table 6: Effective Coverage and Artefact Density - Classes of Slope in Total Study Area.

| | Slope | Effective Coverage m2 | Artefact Occurrences | Number of artefacts | Artefact density per 100m2 |
|---|---|---|---|---|---|
| 1 | 0-2 | 10787 | 42 | 469 | 4.35 |
| 2 | >2-5 | 7070 | 29 | 448 | 6.34 |
| 3 | >5-10 | 3467 | 6 | 17 | 0.49 |
| 4 | >10-20 | 453 | 1 | 1 | 0.22 |
| 5 | >20-30 | 169 | 2 | 3 | 1.78 |

Table 7: Comparison of Survey Coverage and Artefact Density for Classes of Slope Between Chaelundi and Ellis/Wild Cattle Creek Blocks.

| | Slope | Chaelundi Effective coverage m2 | Ellis/WCC Effective coverage m2 | Chaelundi artefact density per 100m2 | Ellis/WCC artefact density per 100m2 |
|---|---|---|---|---|---|
| 1 | 0-2 | 5470 | 5317 | 8.39 | 0.19 |
| 2 | >2-5 | 3264 | 3806 | 12.59 | 0.97 |
| 3 | >5-10 | 2138 | 1329 | 0.7 | 0.15 |
| 4 | >10-20 | 441 | 12 | 0.23 | * |
| 5 | >20-30 | 169 | 0 | 1.77 | * |

### 7.4.3 Geology

As Hall and Lomax (1993:54) note, local geological formations can have an important influence on the nature of artefact scatters. Although many cultural and environmental factors influence the location of camp sites and other activity sites, where a source of stone suitable for artefact manufacture is locally available, people are more likely to have used it. The result can be higher artefact densities closer to the sources of stone and a higher frequency of artefacts being manufactured from locally available stone.

Table 8: Effective Coverage and Artefact Density - Geology in Total Study Area.

| | Geology | Effective Coverage m2 | Artefact Occurrences | Number of artefacts | Artefact density per 100m2 |
|---|---|---|---|---|---|
| 8 | granite | 187 | 2 | 2 | 1.07 |
| 11 | Brooklana | 19512 | 31 | 827 | 4.24 |
| 12 | Coramba | 2247 | 7 | 109 | 4.85 |

The Dorrigo Three Year Study Area largely consists of the Brooklana Formation, which the overwhelming majority of effective survey coverage was of. There is minimal variation in artefact density between the Brooklana and Coramba Formations. Both of these formations are comprised of similar metasedimentary rocks, containing varieties suitable for artefact manufacture, so the absence of a bias in artefact densities is not unexpected.

### 7.4.4 Vegetation

Vegetation is discussed for two reasons: different conditions of archaeological visibility can exist within different vegetation regimes and different subsistence resources can be available, which may have been a factor in site location if the current pattern of flora distribution is contiguous with patterns existing at the time of Aboriginal occupation. Table 9 describes the effective coverage and artefact densities for classes of vegetation in the study area and Table 10 compares the results between Chaelundi and Ellis/Wild Cattle Creek. The overwhelming majority of effective coverage was of dry sclerophyll forest. Artefact density within the total study area is considerably higher for dry sclerophyll forests than for wet sclerophyll forests. However, a comparison of Chaelundi with Ellis/Wild Cattle Creek reveals that wet sclerophyll forests were only located in the Ellis/Wild Cattle Creek block, in which artefact densities are considerably lower than in Chaelundi (refer section 7.4.1). Artefact density in the dry sclerophyll forest in Ellis/Wild Cattle Creek is also significantly lower than in Chaelundi. Hence, it cannot be concluded that the variation in artefact density between dry and wet sclerophyll forests is a result of Aboriginal behavioural preferences. Rather, the difference reflects the overall lower density in the logged forests than the unlogged forests. Possible explanations for this difference are discussed in section 7.4.7.

Table 9: Effective Coverage and Artefact Density - Vegetation Classes in Total Study Area.

| | Vegetation | Effective Coverage m2 | Artefact Occurrences | Number of artefacts | Artefact density per 100m2 |
|---|---|---|---|---|---|
| 1 | rainforest | 12 | 0 | 0 | * |
| 3 | wet sclerophyll | 3888 | 3 | 34 | 0.87 |
| 4 | dry sclerophyll forest | 17708 | 37 | 904 | 5.1 |
| 9 | dry rain forest/wet scl. | 338 | 0 | 0 | * |

Table 10: Comparison of Survey Coverage and Artefact Density for Classes of Vegetation Between Chaelundi and Ellis/Wild Cattle Creek Blocks.

| | Vegetation | Chaelundi Effective coverage m2 | Ellis/WCC Effective coverage m2 | Chaelundi artefact density per 100m2 | Ellis/WCC artefact density per 100m2 |
|---|---|---|---|---|---|
| 1 | rainforest | 0 | 12 | * | * |
| 3 | wet sclerophyll | 0 | 3888 | * | 0.87 |
| 4 | dry sclerophyll forest | 11482 | 6226 | 7.74 | 0.24 |
| 9 | dry rain forest/wet scl. | 0 | 338 | * | * |

### 7.4.5 Proximity to Water

The availability of drinking water and the more diverse and abundant floral and faunal resources which often are associated with it, is generally regarded as an important determinant of site location. In particular, camp sites or sites of longer duration activities, were expected to occur near watercourses and higher artefact densities would be expected near major watercourses. Table 11 describes the effective survey coverage and artefact densities in terms of proximity to the nearest water source (ephemeral or permanent) identified in the field or on 1:25 000 topographic maps.

Table 11: Effective Coverage and Artefact Density - Proximity to Water in Total Study Area.

| | Distance to Water | Effective Coverage m2 | Number of artefacts | Artefact density per 100m2 |
|---|---|---|---|---|
| 1 | 0-200m | 10807 | 533 | 4.93 |
| 2 | 201-400m | 10435 | 405 | 3.88 |
| 3 | 401-600m | 704 | 0 | * |

Almost the entire survey coverage was within 0 - 400m of a water source. This is expected considering numerous ephemeral channels drain the ridgelines on which the survey was focused. Water was observed in a number of ephemeral channels during the survey. For this reason both ephemeral and permanent water sources are included in the analysis. They are also included, because presumably if water sources were a factor in site location, they would have contained water at the time of occupation. It is not possible to ascertain the times when ephemeral streams did contain water. There is no significant variation in artefact density between areas within 0 - 200m of water and areas 201 - 400m from water.

A qualitative observation can be made that several of the largest or highest density sites (e.g. RH4/1, RH4/2 and MH3/1) were located close to a major water source. However, many large and/or dense sites were also located along ridgelines some distance from a major water source (e.g. FR1/1, ST3/1, ST4/1, ST6/1 and RH6/1). Few areas immediately adjacent to major watercourses could be sampled, because of low surface visibility, high ground disturbance from reworking of sediments during flooding, and absence of landscape units of high archaeological potential (e.g. terraces). Hence, no firm conclusions can be drawn other than to state that the relationship between large sites and permanent water sources in the Escarpment Ranges may be more complex than previously thought and not necessarily a relationship of direct proportion. It is a common archaeological assumption, borne from numerous studies, that the largest and densest sites will be located close to major watercourses. However, these results are comparable to those obtained by Hall and Lomax (1993a) in the Grafton Management area, where one large, complex site was located further than one kilometre from the nearest non-perennial water supply and one other such site was located on a low spur adjacent to an intermittent stream.

### 7.4.6 Altitude

Table 12 describes the effective surface coverage and artefact densities for the total study area, in terms of altitude. Altitude is measured in metres above-sea-level, as taken from the 1:25000 topographic maps. Altitude is analysed as it may provide indirect evidence of the relationship between site location and major watercourses (which are at the lowest altitudes) and major ridgelines (at higher altitudes).

Table 12: Effective Coverage and Artefact Density - Altitude Class in Total Study Area.

| | Altitude (m ASL) | Effective Coverage m2 | Artefact Occurrences | Number of artefacts | Artefact density per 100m2 |
|---|---|---|---|---|---|
| 1 | 201-300 | 337 | 2 | 240 | 71.22 |
| 2 | 301-400 | 964 | 4 | 8 | 0.83 |
| 3 | 401-500 | 756 | 5 | 225 | 29.76 |
| 4 | 501-600 | 5482 | 13 | 312 | 5.69 |
| 5 | 601-700 | 7841 | 9 | 110 | 1.4 |
| 6 | 701-800 | 1889 | 2 | 10 | 0.53 |
| 7 | 801-900 | 3156 | 3 | 7 | 0.22 |
| 8 | 901-1000 | 1224 | 2 | 26 | 2.12 |
| 9 | 1001-1100 | 297 | 0 | 0 | * |

Survey coverage was mostly obtained of altitudes in the range of 500 - 900m ASL, which coincides with the levels of much of the study area. Samples were smaller above 900m and below 500m, so the calculated artefact densities for these altitudes should be treated with caution. The highest density at 201 - 300m ASL coincides with areas surveyed near Chandlers Creek, which contained the large, high density sites RH4/1 and RH4/2. Most other sites and the next highest artefact densities occurred in the 401 - 700m ASL range, reflecting the level of the major ridgelines of East Chaelundi. A moderate density occurs at the 901 - 1000m ASL level, which reflects the occurrence of the quarry site RH1/1 on Red Herring Hill. These patterns are discussed further in section 7.4.8.

### 7.4.7 Land Use

The status of land use is considered, because of the impact different practices may have had on the survival rate of sites, the nature of their contents, their state of preservation and their detectability during the current field survey. Obviously the land use categories under consideration would not have been a factor in the original Aboriginal decision making process. Rather, they indicate what human processes may have acted upon the archaeological record and what effect this may have had on the identified pattern of site location. Some of the more recent land use practices, such as grazing and logging, can have a significant impact upon archaeological sites. Also considered is whether an area has been recently burnt, a condition which results in greater surface visibility and therefore an increased potential to locate sites. The categories of land use must be considered as being very generalised, because conditions can vary greatly on the actual ground surface. For example, in 'fully logged' forests, relatively undisturbed patches of ground can exist, and vice versa. The effective surface coverage and artefact densities in regard to land use are described in Table 13.

Table 13: Effective Coverage and Artefact Density - Land Use.

| | Land Use | Effective Coverage m2 | Artefact Occurrences | Number of artefacts | Artefact density per 100m2 |
|---|---|---|---|---|---|
| 1 | native vegetation (Chaelundi only) | 3720 | 11 | 443 | 11.91 |
| 2 | selectively logged (Ellis/WCC only) | 1847 | 3 | 34 | 1.84 |
| 3 | fully logged (Ellis/WCC only) | 6209 | 4 | 6 | 0.1 |
| 5 | pasture (Chaelundi only) | 24 | 1 | 28 | 116.67 |
| 6 | plantation (Ellis/WCC only) | 668 | 0 | 0 | * |
| 1+4 | native+recently burnt (Chaelundi only) | 7738 | 19 | 418 | 5.4 |
| 3+4 | fully logged + burnt (Ellis/WCC only) | 1740 | 2 | 9 | 0.52 |
| 1+ (1+4) | native vegetation total (Chaelundi only) | 11458 | 30 | 861 | 7.51 |
| 3+ (3+4) | fully logged total (Ellis/WCC only) | 7949 | 6 | 15 | 0.19 |

'Native vegetation', describing those forests unlogged by State Forests, occurs only in East Chaelundi. These forests are not pristine however, as they have been logged and grazed spasmodically since the 1870's (Curby 1994). Despite this, Chaelundi stands in complete contrast to the Ellis and Wild Cattle Creek forests which have been intensively logged this century.

The unusually high figure for 'pasture' can be discounted, because of the small nature of the sample. Effective survey coverage closely mirrors that for the different study area blocks, because only 'native vegetation', 'recently burnt native vegetation' and 'pasture' are located in Chaelundi, whereas the 'plantation', 'selectively logged', 'fully logged' and 'recently burnt fully logged vegetation' are only located in the Ellis and Wild Cattle Creek study blocks. Artefact densities in native vegetation, including recently burnt areas, are significantly higher than those for fully logged, including recently burnt, areas. Artefact densities in selectively logged areas (those with a percentage of mature trees still present) are higher than in fully logged areas, but much lower than for areas of native vegetation.

Of interest is that recently burnt areas in fully logged forests demonstrate a considerably higher artefact density than unburnt areas of fully logged forests, as expected, but artefact density in recently burnt native forests is only half that of unburnt native forests. The higher artefact density in unburnt areas cannot readily be explained. It would appear to contradict the general assumption that archaeological visibility is better in recently burnt areas. However, the recording procedure and measure of artefact density controls for varying surface and archaeological visibility. One possible explanation is that internal judgements of surface visibility and archaeological visibility were not consistent. For example, too low a percentage of visibility may have been recorded for unburnt areas (therefore inflating the artefact density figure) or too high a percentage recorded for burnt areas (therefore deflating the artefact density). Also, internal differences in conditions of recently burnt areas (e.g. very recently burnt with ash cover still present, or less recently burnt with regrowth occurring), may not have been adequately controlled for.

The comparisons of artefact densities between Chaelundi, Wild Cattle Creek and Ellis forests, including for topographic units, vegetation, slope and landform patterns, indicate a major difference in artefact density between the unlogged and logged forests. Artefact densities are significantly higher in the unlogged Chaelundi forest than in the logged forests of Wild Cattle Creek and Ellis. The differences cannot be explained purely in terms of the environmental differences between the two areas. Artefact densities are considerably lower in the logged forests across a range of similar environmental units (e.g. 'Hills' and 'Low Hills' landform patterns, dry sclerophyll forest, most topographic units and all classes of slope). Another interesting factor is that the frequency of artefact occurrences per $100m^2$ of effective coverage is 0.262 in unlogged native forests and 0.075 in fully logged forests, whereas the frequency of artefacts in unlogged forests is 39.5 times higher. Also, in fully logged forests there is an average of 2.5 artefacts per artefact occurrence, whereas in unlogged forests there is an average of 28.7 artefacts per artefact occurrence.

Several factors can be forwarded to explain the existence of fewer sites, smaller sites and a considerably lower density of artefacts in the logged forests. As indicated above, because the difference is consistent across environmental units, the possibility it is a result of a generally lower intensity of Aboriginal land use in the logged forests is reduced. The above evidence indicates tentatively that post-depositional human activities have affected the archaeological record in the logged forests, to the extent that only a small proportion of the original artefact population could be detected during the current survey. The most immediately identifiable impacts are those associated with roading and a century of logging operations. It is possible these activities have impacted or obscured a proportion of the archaeological record. However, several other factors may have influenced the results of the survey and need to be taken into consideration. The precise impacts of logging operations on archaeological sites are not clearly evident and such impacts could vary greatly over an area which is logged. Hence, at every location of the sample taken, the variable of land use disturbance could have a different value. Secondly, artefact densities in the logged forests may have been underestimated to an unknown degree, because of the marginally higher archaeological visibility recorded in Wild Cattle Creek. Most of the Trajectories surveyed were located on formed tracks, where ground disturbance is high and archaeological visibility could be expected perhaps to be lower than that recorded.

### 7.4.8 Internal Comparisons Within Eastern Chaelundi

In order to further resolve patterns of site location within the unlogged section of the study area, the variables of landform pattern, topographic unit, altitude, slope and component form are examined for eastern Chaelundi. Factors such as geology, vegetation and distance to water are not considered further, because there is little variation in their distribution within Chaelundi. For the purpose of the analysis of internal variation, eastern Chaelundi is subdivided into three areas corresponding to three major ridgelines;- Frenchmans Ridge (FR), Stockyard Creek/Stop-A-Bit Ridge (ST) and Red Herring Ridge (RH). To an extent these are arbitrarily defined categories. However, all three ridgelines differ in their orientation, form and beginning and end points. Aboriginal usage of the ridgelines may have differed for cultural reasons or factors relating to access to resources, etc. For example, the Red Herring lithic quarry (site RH1/1) is located at one end of the Red Herring Ridge. Also, Mr Trevor Donnelly, of the Grafton-Ngerrie Land Council, suggested usage of certain ridgelines may have been restricted to particular persons (e.g. initiated men only). Hence, sub-dividing Chaelundi into the major ridgelines surveyed may allow for provision of a more finely-grained predictive model, with possible relevance to culturally or economically motivated Aboriginal decisions regarding land use.

The majority of eastern Chaelundi consists of the Hills landform pattern, with the exception of broad areas along Frenchmans Ridge which belong to the Low Hills pattern (Table 14). Artefact density is lower in the Low Hills, which may reflect the greater topographical constraints to movement imposed by the narrower ridgelines of the Hills pattern (refer to section 7.4.1). Density in the Hills landform pattern in Frenchmans Ridge is also lower.

Table 14: Effective Coverage and Artefact Density - Landform Patterns Within Eastern Chaelundi.

| | Landform Pattern | Effective Coverage m2 | Number of Artefacts | Artefact Density per 100m2 |
|---|---|---|---|---|
| 3 | Frenchmans Ridge - Hills | 1503 | 86 | 5.72 |
| 4 | Frenchmans Ridge - Low Hills | 1744 | 64 | 3.67 |
| 3 | Stockyard - Hills | 3484 | 333 | 9.56 |
| 3 | Red Herring - Hills | 4751 | 406 | 8.54 |

Table 15 compares artefact densities between the topographic units within the eastern Chaelundi ridgelines. Caution must be applied in interpreting these figures because of the relatively small nature of the sample for most of the topographic units. The artefact densities for the ridge and ridge hillock topographic units are reasonably similar. Insufficient effective coverage exists to effectively compare most of the other units. In the minimal areas of low spurs surveyed, artefact densities are very high, particularly for Red Herring, reflecting one large site adjacent to Chandlers Creek. Artefact density for saddles is much higher in Stockyard Ridge, confirming qualitative observations made during the survey, although the sample is too small to draw firm conclusions. Because of the insufficient nature of the sample no clear patterns are evident. Where comparative coverage between the three ridgelines has been highest (ridges topographic unit) the artefact densities are similar.

Altitude is analysed as it may provide indirect evidence of the relationship between site location and major watercourses (which are at the lowest altitudes) and major ridgelines (at higher altitudes). Table 16 compares effective coverage and artefact density for the three ridgelines surveyed within eastern Chaelundi.

Table 15: Effective Coverage and Artefact Density - Topographic Units Within Eastern Chaelundi.

| | Topographic Unit | Effective Coverage m2 (FR only) | Artefact Density per 100m2 (FR only) | Effective Coverage m2 (ST only) | Artefact Density per 100m2 (ST only) | Effective Coverage m2 (RH only) | Artefact Density per 100m2 (RH only) |
|---|---|---|---|---|---|---|---|
| 1 | crest | 0 | * | 299 | 36.45 | 0 | * |
| 2 | ridge | 942 | 8.07 | 1629 | 6.63 | 2437 | 9.23 |
| 3 | saddle | 186 | 4.84 | 360 | 27.5 | 665 | 1.05 |
| 4 | ridge hillock | 452 | 3.76 | 373 | 2.68 | 613 | 4.24 |
| 5 | low spur | 111 | 13.5 | 0 | * | 55 | 267.27 |
| 6 | simple slope | 822 | 3.04 | 0 | * | 255 | * |
| 7 | upper slope | 222 | 0.45 | 823 | 0.85 | 314 | 0.32 |
| 8 | mid slope | 289 | 2.42 | 0 | * | 0 | * |
| 9 | lower slope | 23 | * | 0 | * | 0 | * |
| 10 | flat | 200 | * | 0 | * | 412 | * |

Table 16: Effective Coverage and Artefact Density - Altitude Within Eastern Chaelundi.

| | Altitude | Effective Coverage m2 | Number of Artefacts | Artefact Density per 100m2 |
|---|---|---|---|---|
| 4 | 501-600 (FR only) | 1404 | 67 | 4.77 |
| 5 | 601-700 (FR only) | 1843 | 103 | 5.59 |
| 3 | 401-500 (ST only) | 428 | 186 | 43.46 |
| 4 | 501-600 (ST only) | 1047 | 140 | 13.37 |
| 5 | 601-700 (ST only) | 12 | 0 | * |
| 6 | 701-800 (ST only) | 0 | 0 | * |
| 7 | 801-900 (ST only) | 1997 | 7 | 0.35 |
| 1 | 201-300 (RH only) | 329 | 240 | 72.95 |
| 2 | 301-400 (RH only) | 409 | 3 | 0.73 |
| 3 | 401-500 (RH only) | 60 | 39 | 65 |
| 4 | 501-600 (RH only) | 710 | 89 | 12.54 |
| 5 | 601-700 (RH only) | 101 | 0 | * |
| 6 | 701-800 (RH only) | 1859 | 10 | 0.54 |
| 7 | 801-900 (RH only) | 1101 | 0 | * |
| 8 | 901-1000 (RH only) | 182 | 25 | 13.74 |

Frenchmans Ridge exhibits significantly lower artefact densities than Stockyard and Red Herring ridges, for the altitudes between 501m and 700m. Stockyard and Red Herring have very similar densities for these altitudes. One possible explanation is that the survey coverage for these altitudes of Frenchmans Ridge was a substantially greater distance from the major watercourses, than coverage of these altitudes on the other ridges. Higher artefact densities were expected closer to the major watercourses and the results support this hypothesis. Both Stockyard and Red Herring exhibit relatively much higher artefact densities at the lower altitudes than the higher altitudes. The anomalous low 301-400m figure for Red Herring corresponds to the occurrence of steep slopes in the area surveyed. The high figure for 901-1000m on Red Herring corresponds to the location of the Red Herring lithic quarry (site RH1/1).

A comparison of slope between the three ridgelines confirms the earlier findings (section 7.4.2) that higher artefact densities occur on lower gradients (Table 17). Densities vary between the categories of lowest gradient, but not too much value can be placed on these figures as the categories are arbitrarily defined. Artefact densities for the lowest gradients are substantially higher on Red Herring and Stockyard ridges than on Frenchmans Ridge. This could largely be a reflection of the generally higher artefact densities along Stockyard and Red Herring, than along Frenchmans. A comparison of the number and size of sites and artefact densities, reveals that 12 artefact occurrences with 150 artefacts at a mean of 12.5 per site and mean density of 4.62 artefacts per $100m^2$ occurs along Frenchmans Ridge, 10 artefact occurrences with 332 artefacts at a mean of 33.2 per site and mean density of 9.53 artefacts per $100m^2$ occurs along Stockyard, and 8 artefact occurrences with 381 artefacts at a mean of 47.6 per site and mean density of 8.34 artefacts per $100m^2$ occurs along Red Herring Ridge (excluding the lithic quarry). Hence, both Stockyard and Red Herring ridgelines have larger sites, and artefact densities are approximately double those for Frenchmans Ridge. Possible reasons for this difference are considered below.

Table 17: Effective Coverage and Artefact Density - Slope Within Eastern Chaelundi.

| | Slope | Effective Coverage m2 (FR only) | Artefact Density per 100m2 (FR only) | Effective Coverage m2 (ST only) | Artefact Density per 100m2 (ST only) | Effective Coverage m2 (RH only) | Artefact Density per 100m2 (RH only) |
|---|---|---|---|---|---|---|---|
| 1 | 0-2 | 1872 | 6.2 | 1703 | 13.8 | 1895 | 5.7 |
| 2 | >2-5 | 840 | 3.81 | 861 | 11.03 | 1563 | 18.17 |
| 3 | >5-10 | 460 | * | 858 | 0.35 | 820 | 1.46 |
| 4 | >10-20 | 41 | * | 62 | * | 338 | 0.29 |
| 5 | >20-30 | 34 | 5.88 | 0 | * | 135 | 0.74 |

Effective coverage and artefact density in terms of the form of Components is compared in Table 18. Most of the categories consist of an insufficient sample for comparative purposes. However, the observation can be made that artefact densities on unformed tracks and formed tracks (along Stockyard Ridge), are generally higher than in natural areas (unlogged, no vehicle tracks, nor obvious human or natural disturbance). This observation lends confirmation to the validity and usefulness of the on-track sampling methodology, which is generally adopted for forest surveys.

Table 18: Effective Coverage and Artefact Density - Component Form Within Eastern Chaelundi.

| | Component Form | Effective Coverage m2 | Number of Artefacts | Artefact Density per 100m2 |
|---|---|---|---|---|
| 2 | unformed track (FR only) | 459 | 22 | 4.79 |
| 10 | animal track/camp (FR only) | 150 | 0 | * |
| 11 | natural (FR only) | 2600 | 128 | 4.92 |
| 12 | stream (FR only) | 38 | 0 | * |
| 1 | bulldozer push (ST only) | 192 | 0 | * |
| 3 | formed track (ST only) | 1417 | 186 | 13.13 |
| 11 | natural (ST only) | 1875 | 147 | 7.84 |
| 2 | unformed track (RH only) | 645 | 318 | 49.3 |
| 3 | formed track (RH only) | 525 | 0 | * |
| 11 | natural (RH only) | 3581 | 88 | 2.46 |

In general terms, the most significant internal difference within eastern Chaelundi is that artefact densities and site sizes are greater along Red Herring and Stockyard Ridges, than along Frenchmans Ridge. However, where sample sizes are adequate, variation in terms of topographic units (e.g. ridges and ridge hillocks) is minimal. Possible explanations include that the larger sites and higher artefact density along Stockyard and Red Herring Ridges is a real phenomenon and reflects more intensive Aboriginal usage of these areas. However, no firm conclusion can be drawn, because the existence of several large and dense sites near Chandlers Creek on these ridgelines may have skewed the results and artificially inflated density calculations. No survey coverage was obtained of similar areas adjacent to Chandlers Creek along Frenchmans Ridge. It is possible similar large sites may exist along Frenchmans Ridge closer to Chandlers Creek, in which case there may be little overall variation in density and average site size between the ridgelines. Further evidence that the internal variation within Chaelundi is related to the larger sites near Chandlers Creek is the artefact density comparisons for altitude. Hence, the variations between the ridgelines may be a real phenomenon, but such a statement cannot be made on current evidence because of the insufficient nature of the survey sample. Further survey coverage along Frenchmans Ridge closer to Chandlers Creek is necessary to adequately resolve this issue. Because of the lack of access and time constraints, such coverage could not be undertaken during the current survey.

## 7.5 Sites

In this section, the artefact occurrences located are analysed in terms of their size and contents. Appendix 10 contains the site database and Appendix 11 contains descriptions of every artefact recorded.

### 7.5.1 Site Size and Artefact Density

The identified size of sites varies from between $4m^2$ (Site ST5/2) to 28 $500m^2$ (Site RH4/2). Two measures are provided in Appendix 10; the effective coverage of the recorded sample area and the estimated site size. However, estimates of site size are difficult to determine and generally only the minimum area in which artefacts were observed is provided. Often artefacts were observed over a much wider area than that of the Components recorded, however time constraints and the goal of representative coverage prevented the total number of artefacts observed from being recorded for every site. However, all artefacts were recorded from within each Component surveyed. The mean sample area recorded of sites is $200m^2$ and the mean site size is 4 $577m^2$.

Artefact density varies widely between 0.3 artefacts per $100m^2$ (ST3/1) to 465 artefacts per $100m^2$ of effective sample coverage (ST6/1). Mean artefact density for artefact scatters is 15 artefacts per $100m^2$ of effective coverage. 21 out of 31 sites had a greater density than 10 artefacts per $100m^2$ and 6 of these had a density higher than 100 artefacts per $100m^2$ (or 1 artefact per $1m^2$).

While site size alone is not a suitable measure for comparing sites (because the observed size does not necessarily represent the real size), artefact densities alone are also inadequate because they fail to account for site size. A site of only a few square metres may yield an artefact density as high as for a site covering thousands of square metres. Because of these factors, Hall and Lomax (1993a:57) consider artefact numbers provide the most suitable index for comparison, in terms of the overall substance of a site. Table 19 describes the frequency of different artefact occurrence size classes and Table 20 compares the number of sites in each size class to the topographic units.

Table 19: Frequency of Each Artefact Occurrence Size Class - Total Study Area.

| Number of Artefact Occurrences | Site Size Class | % |
|---|---|---|
| 17 | 1 (1-4 artefacts) | 42.5 |
| 13 | 2 (5-20 artefacts) | 32.5 |
| 3 | 3 (21-50 artefacts) | 7.5 |
| 3 | 4 (51 - 100 artefacts) | 7.5 |
| 4 | 5 (>100 artefacts) | 10 |

Table 19 demonstrates that most artefact occurrences contain less than twenty artefacts. However, a reasonable proportion of sites occur within the larger class sizes and this is reflected in an overall mean density of 23.4 artefacts per site. Table 20 reveals that the largest sites occurred on ridges and extending across the upper slopes of ridges, and on low spurs. Smaller sites occur across the range of toposequence units.

Table 20: Number of Artefact Occurrences per Site Size Class for Each Topographic Unit.

| | Toposequence | Class Size 1 | Class Size 2 | Class Size 3 | Class Size 4 | Class Size 5 |
|---|---|---|---|---|---|---|
| 1 | crest | 1 | 0 | 0 | 0 | 1 |
| 2 | ridge | 9 | 6 | 0 | 2 | 3 |
| 3 | saddle | 2 | 4 | 1 | 1 | 0 |
| 4 | ridge hillock | 3 | 3 | 1 | 1 | 0 |
| 5 | low spur | 1 | 2 | 0 | 0 | 2 |
| 6 | simple slope | 1 | 1 | 0 | 1 | 0 |
| 7 | upper slope | 2 | 1 | 1 | 0 | 2 |
| 8 | mid slope | 0 | 1 | 0 | 0 | 0 |
| 12 | stream/swamp bank | 0 | 0 | 1 | 0 | 0 |

### 7.5.2 Site Contents

A total of 938 artefacts were recorded during the survey of the Dorrigo Three Year Study Area. Table 21 lists the numbers and frequencies of artefact types and raw material types. The overwhelming majority of artefacts are flakes, however blade technology is present as indicated by the frequency of blades, broken blades and blade cores. The existence of numerous cores and small debitage (e.g. chips) is evidence reduction of artefacts occurred at a number of sites. Microlithic implements such as backed blades and a point occur, mostly in sites along Stockyard Ridge. A low number of retouched and utilised pieces are present. The most unusual retouched/utilised artefacts are the utilised unmodified pieces. These are large, blocky pieces of argillite with generally one steep-edged side exhibiting edge damage from use as a chopper. A low frequency of hammerstones, an anvil and an edge-ground hatchet are also present. Of particular note regarding site content, is that a number of sites along Stockyard Ridge and to a lesser extent Red Herring Ridge, contain localised high density concentrations of small artefacts, including microlithic implements. Backed blades have been located in excavated sites between 1000 and 5000 years in age (e.g. McBryde 1974). Because of the existence of backed blades and the geomorphological context of the sites, most are probably less than 5000 years in age.

The stone used in artefact manufacture indicates a strong preference towards locally available materials. Metasedimentary rocks, including argillite, greywacke and lithic sandstone are widespread in availability throughout the study area and represent the most frequently used materials. They are available from surface outcrops, the lithic quarry at Red Herring Hill and in river pebbles in the major watercourses. The quality of the metasedimentary outcrops varies greatly. In many outcrops the outer material appears to be of a low quality for artefact manufacture, however removal of the cortex could expose better quality material. Quartz was also utilised frequently and occurs in localised patches on the surface. Crystal quartz and the acid volcanic rocks may have been obtained from river pebbles or were imported from other areas. Many artefacts exhibit cortex. The majority are from terrestrial sources, however a proportion of artefacts exhibit river pebble cortex. Most of these were located close to Chandlers Creek. Few chert or chalcedony pieces were observed. Comber (1992) recorded many artefacts as being of chert, basalt or meta-basalt. As there are no sources in the local region and the appearance of metasedimentary rocks can vary widely to resemble these types in its various forms of weathering, it is likely Comber (1992) has confused these materials.

Table 21: Numbers and Frequencies of Artefact Types and Raw Material Types in Total Study Area.

Key: 1 = metasediments 2 = quartz 3 = crystal quartz 4 = sandstone
5 = chert 6 = acid volcanic 7 = granite 8 = chalcedony
(refer to Appendix 8 for definitions of artefact types)

| | Raw Material → Artefact type | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Total artefacts | % |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | flake | 325 | 47 | 6 | 13 | 1 | 2 | 0 | 1 | 395 | 42.1 |
| 2 | bkn flake | 126 | 9 | 0 | 2 | 0 | 0 | 0 | 0 | 137 | 14.6 |
| 3 | flaked piece | 128 | 10 | 2 | 0 | 0 | 0 | 0 | 0 | 140 | 14.9 |
| 4 | blade | 31 | 5 | 3 | 1 | 0 | 0 | 0 | 0 | 40 | 4.3 |
| 5 | bkn blade | 29 | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 36 | 3.8 |
| 6 | core | 48 | 17 | 1 | 3 | 1 | 0 | 0 | 0 | 70 | 7.5 |
| 7 | blade core | 10 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 1.3 |
| 8 | bkn core | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0.4 |
| 9 | bkn blade core | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 | ground hatchet | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0.1 |
| 11 | hammerstone | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 4 | 0.4 |
| 12 | anvil | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0.1 |
| 13 | manuport | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0.1 |
| 14 | backed blade | 10 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 1.2 |
| 15 | chip | 48 | 8 | 5 | 0 | 1 | 0 | 0 | 0 | 62 | 6.6 |
| 16 | utilised unmod. piece | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0.6 |
| 17 | retouched flake/blade | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0.2 |
| 18 | utilised fl/flp/bl | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 |
| 19 | chopper/pebble chopper | 6 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 9 | 1 |
| 20 | bkn pebble | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 2 | 0.2 |
| 21 | bipolar core | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0.2 |
| 22 | thumbnail scraper | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 |
| 23 | point | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 |
| | Total | 774 | 105 | 20 | 25 | 5 | 7 | 1 | 1 | | |
| | % | 82.5 | 11.2 | 2.1 | 2.7 | 0.5 | 0.7 | 0.1 | 0.1 | | |

### 7.5.3 Site Types

The artefact scatters identified represent evidence of a range of activities having been carried out. Larger artefact scatters which contain a wide variety of artefact types probably were repeatedly occupied camp sites. Reduction of stone artefacts and a range of other activities would have occurred at them. Examples possibly include sites MH3/1, RH4/1 and RH4/2. Other artefact scatters may solely represent the evidence of stone artefact reduction or single activities such as the hunting and butchering of an animal (Hall & Lomax 1993:62). Examples include any of the sites with less than twenty artefacts. Artefact scatters along the ridgelines may represent the accumulation of evidence (i.e. discarded artefacts) of transitory movement across the landscape. Larger sites along the ridgelines (for example sites FR1/1, RH6/1, ST3/1, ST4/1 and ST6/1 along Red Herring, Stockyard and Frenchmans Ridges) may represent the accumulated evidence of small, transitory campsites. Over 75% of small sites (defined as less than 20 artefacts) were located along ridgelines (refer Table 20), with a greater tendency for higher artefact densities to occur in saddles and on the level to gently sloping ridges. Sites ST6/1 and RH8/2 on ridgeline saddles potentially contain shallow deposits and sites RH4/1 and RH4/2 on a low spur and ridge, adjacent to Chandlers Creek, also have the potential for sub-surface deposits.

Two other site types were located; a lithic quarry/reduction site and a scarred tree. No other site types discussed in section 5.3.1 as having the potential to occur (bora/ceremonial sites, burials, carved trees, mythological/traditional sites and stone arrangements) were located during the survey. The potential for these sites to occur was identified by the predictive model as being low or extremely low. Hence, the findings of the current study do not conflict with the predictive model. There remains a low to very low potential for these site types to exist in areas not inspected during the current survey.

Site RH1/1: The lithic quarry/reduction site at Red Herring Hill has previously been identified by Comber (1992). The sample recorded during the current survey is of a different part of the site to that previously described and the extent of the site is considerably greater than that initially identified in the preliminary study. Argillite outcrops, mostly in the form of blocks and cobbles, occur over a wide area of Red Herring Hill.. The quality of the material varies from highly siliceous to granular, depending on the amount of weathering. Time constraints and the goal of representative coverage restricted recording of the site to a small sample. Numerous flakes and cores, potentially at various stages of reduction, were observed. There was no direct evidence located to support Comber's (1992:33) suggestion that axe-blanks were manufactured at the site. The major emphasis appears to have been on manufacturing flakes, however larger pieces may have been fashioned as choppers or axes. Argillite flakes are the most frequent artefact/raw material type in the study area and only one ground-edge hatchet occurs and it is made from sandstone. The site appears to extend over a considerable portion of the north side of Red Herring Hill (north of the vehicle track), possibly correlating to the distribution of the argillite outcrop, and with significant internal variation in artefact density.

Artefacts manufactured from the argillite raw material comprise the overwhelming majority of artefacts recorded in the study area. Four sources are likely; the Red Herring Hill quarry (the only identified quarry in the study area, despite the existence of numerous other argillite outcrops), other unrecorded quarries (similar argillite outcrops may have been quarried, but were not located during the current survey), river pebbles (recordings of cortex indicate some argillite has been obtained from river pebbles, but the large majority came from terrestrial sources), and low density localised occurrences of argillite (a background scatter of argillite blocks occurs throughout most of the ridgelines and may have been exploited on an opportunistic basis). An example of opportunistic exploitation is the utilised unmodified pieces. The current survey involved more intensive sampling of Red Herring Hill, enabling identification of a more extensive site than was recorded by Comber (1992), during her preliminary survey. The newly located evidence does not support Comber's (1992:33) assertion that the site is of a low-density and was not frequently exploited. Rather, the new evidence suggests that the Red Herring Hill quarry may have been exploited on a regular basis and has been a prime source of the argillite raw material in the study area.

Site RH7/1: The site is comprised of a scarred tree and an artefact scatter. The scarred tree is located on a healthy, mature Bloodwood tree (*E. gummifera*), approximately 0.6m in diameter (Appendix 12, Plate 1). The scar is canoe shaped, symmetrical and measures 2.02m in length and 0.3m in width. Regrowth is approximately 10 - 12cm deep, indicating the bark may have been removed 80 - 90 years ago (P. Massey-Reed 1994 *pers comm*). Extensive bulbous regrowth is visible, indicating the bark originally removed probably measured 2.3m x 0.7m. The scar terminates 15cm above the ground surface. The scar bears all the attributes of a canoe scar and there are no attributes suggesting it may have been caused by disease, lightning or branch removal. It is located toward the lower end of Red Herring Ridgeline, as it descends to Chandlers Creek. The site is the only one of its type in the study area. There remains the potential for other scarred trees to be located in eastern Chaelundi, but the potential as identified by the predictive model is low.

### 7.6 Conclusion

The following correlations between site location and environmental variables are noted for the Escarpment Ranges land system, which covers the entire Dorrigo Three Year Study Area.

There are fewer sites, smaller sites and a considerably lower density of artefacts in the logged forests than in the unlogged Chaelundi forest. An explanation for this difference could involve several factors, but is unlikely to be purely a reflection of different Aboriginal land use. The survey results tentatively indicate that post-depositional human activities (e.g. roading and logging) have affected the archaeological record in the logged forests, to the extent that only a small proportion of the original artefact population could be detected during the current survey. However, such an interpretation must be treated with caution, as several other factors may have influenced the results of the survey. The precise impacts of logging operations on archaeological sites are not clearly apparent and such impacts could vary greatly over an area which is logged. Also, artefact densities in the logged forests may have been underestimated to an unknown degree, because of the marginally higher archaeological visibility recorded in Wild Cattle Creek.

Most artefacts located are flakes and the overwhelming majority of artefacts are manufactured from locally available metasedimentary materials, such as argillite. Sites tend to be located on low gradients. The survey was focused along ridgelines, where the highest tendency for artefacts to occur is in saddles and along the actual ridge. Sites also have a tendency to occur on low spurs and stream/swamp banks, although survey coverage of these areas was minimal. Higher artefact densities are recorded in the Hills landform pattern than in the Low Hills, probably because the low gradient landscape units are narrower and acted as constraints to movement, therefore concentrating discarded artefacts into smaller areas. No clear pattern could be identified for the location of the largest and highest density sites; some were on low spurs near major watercourses and others along ridgelines some distance from major watercourses. However, higher artefact densities tend to occur closer to a major watercourse.

Within eastern Chaelundi, sites tended to contain more artefacts and at significantly higher densities along the Red Herring and Stockyard Ridges, than along Frenchmans Ridge. This may be a real phenomenon, reflecting more intensive Aboriginal usage of these two ridgelines, or the results may have been skewed to some extent by the existence of several large sites along these ridgelines near Chandlers Creek, whereas no survey coverage was obtained of environmentally comparable areas along Frenchmans Ridge (i.e. close to a major watercourse). The results for eastern Chaelundi also offer confirmation as to the usefulness and validity of the on-track sampling methodology.

## 8. REASSESSMENT OF PREDICTIVE MODEL

In the context of the survey results, the predictive model can be reassessed. For the Escarpment Ranges land system, which covers the entire study area, it was originally predicted that artefact scatters would occur along ridgelines, particularly in areas of low gradient and possibly with a bias towards high and low points such as ridge hillocks and saddles. Artefact scatters were also expected to occur along drainage lines, particularly on elevated, low gradient landscape units adjacent to watercourses, such as low spurs. Artefact numbers and densities were predicted to be higher in sites adjacent to major watercourses.

After consideration of the survey results, the following modifications to the predictive model for the Dorrigo Three Year EIS area are made. A significant difference in artefact density is observed between the unlogged Chaelundi forest and logged Ellis and Wild Cattle Creek forests. In logged forests, artefact occurrences will be located along the same toposequences as for unlogged forests, however at a substantially lower frequency and with lower artefact densities. In unlogged forests, such as eastern Chaelundi, artefact scatters will occur along ridgelines, particularly on low gradient ridges and saddles, and on low spurs. There will be a tendency for higher artefact densities to occur at lower altitudes, generally corresponding to closer proximity to a major watercourse. The largest and highest density sites will generally occur adjacent to major watercourses or along major ridgelines. Site densities on narrower ridgelines (for example in the Hills landform pattern) will be greater than on broader ridgelines (Low Hills landform pattern).

The original predicitions for the expected occurrence of bora/ceremonial sites, burials, carved trees, mythological/traditional sites, scarred trees and stone arrangements ranged from low to extremely low. The survey results have acted to reaffirm these predictive statements. The predictive model identified the potential for lithic quarry/reduction sites to occur where-ever suitable outcrops of raw material are present. The survey results support modification of this predictive statement. It is now considered the potential for lithic quarries within the study area is generally low.

## 9. SIGNIFICANCE ASSESSMENT OF SITES

### 9.1 Assessment of Significance of Aboriginal Sites

The National Parks and Wildlife Service is responsible for the protection of Aboriginal relics on any land within New South Wales. It is an offence under the *NSW National Parks and Wildlife Act, 1974* to knowingly destroy, deface or damage a relic or Aboriginal Place, without the prior written permission of the Director of the NSW NPWS. The information contained within reports prepared by independent consultants and the assessment of significance of archaeological sites provides the basis for the NSW National Parks and Wildlife Service to make informed management decisions regarding the degree of protection which should be afforded to specific sites.

The significance of archaeological sites in the Dorrigo Three Year EIS area can be assessed according to the following criteria:

- archaeological value
- significance to Aboriginal people
- educational value
- historic value
- aesthetic value

Greater emphasis is generally placed on criteria of archaeological value and Aboriginal significance when assessing the significance of archaeological sites in Australia.

Archaeological value refers to the potential of the site to answer further research questions; the contents of the site; their state of preservation; and the representativeness of the site type. Representativeness is generally assessed at local, regional and national levels. It is an important criteria, because the primary goal of cultural resource management is to afford greatest protection to a representative sample of site types throughout the region. The more unique or rare a site is, the greater its value as being representative of that particular site type in a region.

Aboriginal significance refers to the value placed upon a site by the local Aboriginal community. All archaeological sites have some contemporary significance to Aboriginal people, because they represent an important tangible link to their past and to the landscape. Mr Trevor Donnelly, representative of the Grafton-Ngerrie Local Aboriginal Land Council, confirmed this statement on a number of occasions with the consultant. Sites may be part of the living Aboriginal culture or be significant because of their connection to spiritual beliefs or as a part of post-contact Aboriginal history. Consultation with representatives of the local Aboriginal communities is essential to establish the level of Aboriginal significance. Consultation was undertaken during the field survey with Mr Donnelly. Mr Donnelly did not offer many specific statements on individual sites, but he demonstrated a great interest in the sites located and the findings of the study. State Forests should commission the Grafton-Ngerrie Land Council to provide a written letter of comment on the survey and report, after internal discussions have taken place (e.g. at a monthly LALC meeting).

Educational value refers to the potential of the site as an educational resource for groups within the community. Historic value refers to the importance of the site as a location of an historic event, phase, figure or activity. Aesthetic value includes all aspects of sensory perception. This criteria is usually applied mainly to art or mythological sites.

### 9.2 Previously Recorded Sites

Comber (1992) recorded one lithic quarry, five artefact scatters and two isolated artefacts within the East Chaelundi portion of the current study area and one artefact scatter on the border of Wild Cattle Creek State Forest. The locations of three of these (Stockyard Creek 1, Isolated Find 1 and Red Herring Hill 1) correspond to artefact occurrences recorded during the current survey and their significance is reassessed in section 9.3. As a preliminary statement, Comber (1992:43) rated the sites Stockyard Creek 1-3 and Moses Rock 2 as being of significance on the grounds of their potential for future archaeological research. No assessment of significance is provided by Comber (1992) for Isolated Finds 1 and 2 or sites Frenchmans Ridge 1 and 2. The latter sites probably form part of the same complex as site FR5/5 located during the current survey and are therefore assessed along with it in section 9.3. Isolated Find 2 probably forms part of the same site complex as FR1/1 and FR1/2 and is also assessed below. The Red Herring Hill quarry site is rated by Comber (1992:43) as being of high significance on the criteria of rarity and potential for further research. This site and sites Stockyard Creek 2 and 3 and Moses Rock 2 are reassessed below within the context of the current survey results.

### 9.3 Sites Located During the Current Survey

In the Ellis/Wild Cattle Creek areas, the following sites are assessed as being of low archaeological significance within local and regional contexts, on the grounds they fail to meet any of the criteria for significance outlined in section 9.1. These artefact occurrences represent common site types, offer little potential for further research, the artefacts are of uncertain provenance due to ground disturbance and they do not represent rare or unique types: WF1/1, EP1/1, MR1/1, MR2/1, PR1/1, PR2/1, TT1/1, TT2/1 and Moses Rock 2.

In the Ellis/Wild Cattle Creek areas, the following site is assessed as being of moderate archaeological significance within a local context, because of its potential for further research and its local representativeness as the only site recorded adjacent to a watercourse and in the Escarpment landform pattern: MH3/1.

Typically site significance is assessed on an individual site basis. However, for the East Chaelundi portion of the current study area, significance is more appropriately assessed in terms of site complexes along the major ridgelines, as it has been demonstrated that a continuum of artefacts is likely to exist across the study area at varying densities and that the sites recorded merely represent a sample that was identified in the small window of visibility, presented by the survey coverage. In effect, the three major ridgelines can each be assessed as 'cultural landscapes'.

#### 9.3.1 Frenchmans Ridge

Sites FR1/1, FR1/2, FR2/1, FR2/2, FR3/1, FR4/1, FR4/2, FR5/1, FR5/2, FR5/3, FR5/4, FR5/5 and Comber's (1992) Isolated Find 2, Frenchmans Ridge 1 and Frenchmans Ridge 2, form part of a complex of sites along Frenchmans Ridge. The sites tend to be clustered in particular areas, but these are mostly a reflection of where the survey Trajectories were located. The sites are all artefact occurrences of moderate to high density, with artefact numbers varying between 1 and 67, at a mean number of 12.5 artefacts per occurrence and density of 4.62 artefacts per $100m^2$ of effective survey coverage. The archaeological significance of the complex of sites along Frenchmans Ridge can be described as high within a local context and moderate to high within a regional context, in terms of the relatively undisturbed nature of the sites, the high potential for further research, their representativeness as relatively undisturbed artefact scatters along a dominant ridgeline in the Low Hills landform pattern and the sites contents (several rare or unusual artefact types). No comparable site complexes are currently recorded for the Grafton or Kempsey/Wauchope Management Areas, although this may be a result of more intensive surveying techniques having been used in the current study.

### 9.3.2 Stockyard Ridge

Sites ST1/1, ST1/2, ST1/3, ST3/1, ST4/1, ST5/1, ST5/2, ST6/1, ST7/1, ST7/2 and Comber's (1992) Stockyard Creek 2 and Stockyard Creek 3, form part of a complex of sites along Stockyard Ridge. The sites tend to be clustered in particular areas, but again this merely reflects the nature of the survey sample. The sites are nearly all artefact scatters of moderate to high density, with artefact numbers varying between 1 and 112, at a mean number of 33.2 artefacts per occurrence and density of 9.53 artefacts per 100m$^2$ of effective survey coverage. The archeological significance of the complex of sites along Stockyard Ridge can be described as high within a local context and high within a regional context, in terms of the relatively undisturbed nature of the sites, the high potential for further research, their representativeness as relatively undisturbed artefact scatters along a dominant ridgeline leading to a major watercourse, and the sites contents (a number of rare or unusual artefact types).

### 9.3.3 Red Herring Ridge

Sites RH4/1, RH4/2, RH4/3, RH4/4, RH6/1, RH8/1 and RH8/2 form part of a complex of sites along Red Herring Ridge. These sites are also clustered in particular areas, mirroring the survey coverage. The sites are mostly artefact scatters of moderate to high density, with artefact numbers varying between 1 and 123, at a mean number of 47.6 artefacts per occurrence and density of 8.34 artefacts per 100m$^2$ of effective survey coverage. The archaeological significance of the complex of sites along Red Herring Ridge can be described as high within a local context and high within a regional context, in terms of the relatively undisturbed nature of the sites, the high potential for further research, their representativeness as relatively undisturbed artefact scatters along a dominant ridgeline connecting a major watercourse to the lithic quarry and the sites contents (several rare or unusual artefact types).

Site RH7/1 consists of an artefact scatter and scarred tree. The artefact scatter component can be assessed as being of the same level of significance as the other Red Herring Ridge artefact scatters. The scarred tree is of high significance within local and regional contexts on the criteria of representativeness (the only one recorded within the Three Year Study Area), its contents (demonstrates a distinctive way of life/land use which is no longer practiced in the area and is of exceptional interest) and its potential educational benefits.

Site RH1/1 is the lithic quarry/reduction site on Red Herring Hill. It is assessed as being of high significance within local and regional contexts on the criteria of representativeness (only lithic quarry in the Dorrigo Management Area), site contents (demonstrate distinctive way of life/land use no longer practiced and of exceptional interest, relatively undisturbed and has high potential for further research) and its potential educational benefits.

## 10. IMPACT ASSESSMENT

The archaeological record is a non-renewable resource. Despite the initial appearance that archaeological sites in unlogged old growth forests are relatively undisturbed, consideration of the various natural processes and human impacts reveals that the forest environment is a dynamic place and that the archaeological resource is being disturbed in a number of ways. This section discusses the impacts caused by natural processes and human activity, the specific impacts upon sites and the likely impacts of the proposed State Forests activities.

### 10.1 Impacts Caused by Natural Processes

After artefacts have been discarded, a variety of post-depositional natural processes act upon them and their depositional context. In the current study area, erosion and bioturbation (mixing of soil matrix caused by natural organic processes such as plants growing), are the primary processes influencing sites. Soil movement associated with these processes can result in minor movements of individual artefacts, which over a lengthy period of time can add up to significant shifts in artefact locations. A prime example is artefacts which move down sloping surfaces.

Gollan (1992:44) highlights the impact of tree growth as a post-depositional process affecting artefact scatters. Gollan (1992:44) hypothesises that in a forest of 100 trees per hectare, the time for every part of the forest floor to be disturbed by new tree growth is approximately 2500 years. This poignant example demonstrates that within the period of time in which tree growth influences every portion of the study area, the locational integrity of sites already deposited would be disturbed.

### 10.2 Impacts Caused by Human Activity

Human impacts to the Dorrigo Three Year Study Area have originated from three primary sources; the timber industry, the mining industry and the pastoral industry. The Chaelundi forest and the Ellis/Wild Cattle Creek forests are discussed separately, because the land use history of these areas is markedly different.

In East Chaelundi, human activities since non-indigenous settlement in the Nineteenth Century have resulted in a low level of impact. The grazing and settlement related activities have resulted in disturbance from fencing, cattle grazing, minor ringbarking and the building of huts and yards, since at least the 1870's (Curby 1994). Most of the Chaelundi area is still under lease and presently used for grazing. The documentary evidence for mining within Chaelundi State Forest is extensive, but there appears to have been minimal direct activity within the East Chaelundi study area (Curby 1994). Timber getting activities in East Chaelundi have also been relatively minimal. The area has been logged spasmodically since the 1870's (Curby 1994). There is circumstantial evidence that logging incidental to the grazing and mining industries occurred, such as to obtain wood for huts, yards, fence posts and as a fuel for use in mines. Commercial logging for cedar and later hoop pine probably dates to the 1870's (Curby 1994). However, no large scale logging has taken place, in contrast to the other forests of the current study area.

The Ellis and Wild Cattle Creek sections of the study area have been extensively affected by human activities related to forestry and grazing. Intensive logging has occurred in Wild Cattle Creek State Forest since the early Twentieth Century and in Ellis State Forest since the 1930's, after the first cedar getters arrived during the mid-Nineteenth Century. Disturbance from settlement has been high, particularly around the villages of Briggsvale, Cascade and Billys

Creek, and from the widespread network of roads, timber tramways and the Dorrigo - Glenreagh Railway.

## 10.3 Specific Impacts on Archaeological Sites

Archaeological sites contain two dimensions from which their value derives; their physical elements and their structure (Hall & Lomax 1993a:70). The physical element of an artefact scatter consists of the stone artefacts, whereas structure refers to the context and spatial distribution of the artefacts. Artefact scatters are not necessarily destroyed by a single impact, however repeated impacts can substantially affect their contents and structure.

Impacts on the spatial distribution of artefacts are caused by a variety of factors. Natural processes such as tree growth and erosion disturb the post-depositional environment of artefacts. As Gollan (1992:44) observes, the archaeological resource is "constantly in a state of flux, being made (exposed and discovered) and un-made (by impacts, random and non-random, cultural and natural), but generally trending towards loss of systematic informational content". Disturbance to site structure from human related impacts include low intensity activities (grazing, tree felling, increased erosion caused by vegetation removal and burning, and some machinery impacts) and high intensity activities (road construction, heavy machinery movement and churning). The high intensity activities may result in the complete destruction of sites, particularly along well formed roads and log dumps.

Damage to individual artefacts is generally caused by heavy machinery, vehicles and cattle. Such damage can take the form of complete breakage or damage to cutting edges (Byrne 1993). The latter can preclude or complicate analysis of usewear patterns on artefacts and renders decisions difficult on whether edge-damage is the result of Aboriginal retouch or recent human impact (Byrne 1993:31). The greatest impact occurs where heavy machinery is used in logging or road construction. The subsequent passage of vehicles and machinery over roads can cause further breakage and/or edge damage. For artefacts located off vehicle tracks in the unlogged forests, cattle appear to have caused edge damage to numerous pieces.

Such activities are likely to have extensively affected the archaeological resource during a century of intensive logging in the Ellis/Wild Cattle Creek areas. In the Chaelundi area, impacts upon the archaeological resource have probably been of a much lower intensity. The greatest impacts have probably been caused by construction and use of the fire-trails and from grazing. Grazing, in addition to causing damage to individual artefacts, could indirectly disturb their context by promoting erosion or bioturbation processes.

For other highly focalised site types, such as scarred trees, carved trees, burials and stone arrangements, a single impact is likely to result in their destruction. Such an impact could come from heavy machinery associated with tree felling. However, site types such as lithic quarries and rockshelters may be less susceptible to damage from a single impact associated with forestry activities, because heavy machinery generally does not traverse such types of terrain. These site types can also be damaged by repeated, low intensity impacts, such as from the movement of cattle and people.

## 10.4 Impacts of Proposed Activities

In the three years following determination of the Environmental Impact Statement, timber harvesting and grazing leases are the proposed activities likely to affect the archaeological resource of the Ellis and Wild Cattle Creek areas. However, grazing under perpetual Crown Leases lies outside the scope of the current EIS. As discussed above, previous forestry activities have had a substantial impact upon the archaeological resource of these forests. A continuation of forestry activities in the Ellis/Wild Cattle Creek areas will result in the continued and cumulative degradation of the archaeological resource. However, considering the extensive impacts which have already occurred, the impact of continued forestry operations over a three year period is likely to be relatively minimal.

In the eastern Chaelundi portion of the study area, the proposed activities likely to impact upon the archaeological resource include continuation of grazing leases, construction of roads, timber harvesting, and a possible increase in erosion levels caused by vegetation removal which would lead to a short term dislocation of artefacts. No existing formed roads (apart from minor firetrails) exist in eastern Chaelundi and an extensive network of roading consisting of main roads, feeder roads and logging tracks, is planned. Numerous currently recorded sites would probably be affected by the proposed roading (as indicated on 1:25 000 maps supplied to the consultant), including sites Frenchmans Ridge 1, Frenchmans Ridge 2, Isolated Find 2, FR1/1, FR1/2, FR2/1, FR3/1, FR4/2, FR5/1, FR5/2, FR5/3, FR5/4, FR5/5, Stockyard Creek 2, Stockyard Creek 3, ST1/1, ST3/1, ST4/1, ST6/1, ST7/1, ST7/2, RH1/1, RH4/2, RH4/3, RH4/4, RH6/1, RH7/1 and RH8/1. In addition, a substantial portion of the archaeological resource predicted to occur along ridgelines and spurlines, where the majority of roading is planned, would be affected.

As discussed above, eastern Chaelundi is a relatively undisturbed forest, which has never been logged by State Forests. As Packard (1992:76) observes, sites in previously unlogged forests are more likely to have relatively undisturbed contents and be of potentially greater scientific significance, therefore proposed forestry activities in unlogged forests would have à higher probability of impacting significant sites than would forestry activities in fully logged forests. The site complexes occurring along the three main ridgelines, and the ridgelines themselves when viewed as cultural landscapes, have been assessed as being of high significance within a local context and of moderate to high significance within a regional context.

The forestry activities proposed for eastern Chaelundi would have a significant, irreversible and highly destructive impact upon both the known and predicted archaeological resource. The current survey has identified a number of artefact scatters of varying content and density occurring along the three major ridgelines. Roading in particular would have the greatest impact upon these sites and the areas of high archaeological sensitivity (ridges, ridge crests, saddles and hillocks, and low spurs). Logging operations (particularly snigging) will occur throughout East Chaelundi independent of the potential locations of archaeological sites. Since the forests have not previously been logged, the initial impact of logging on the known and predicted archaeological resource would be high. Over subsequent years, the additional impact of logging would be lower, but the repeated effects of logging cycles would result in the cumulative degradation and eventual destruction of the archaeological resource (Byrne 1993). Logging may impact any further scarred trees which potentially exist within the area. The continuance of grazing leases will result in further damage to sites, particularly to individual artefacts from cattle trampling.

## 11. RECOMMENDATIONS

This section includes a discussion of the rationale behind the cultural resource management of Aboriginal sites and the Preferred Management Priority classification system. Deficiencies in the existing PMP system are identified and proposals forwarded to conserve a representative sample of the identified and predicted archaeological resource. Specific recommendations are presented for the management of Aboriginal sites and general recommendations concerning local Aboriginal community interests and training of State Forests personnel.

### 11.1 Relevant Legislation

Aboriginal sites are offered varying forms of protection under the *NSW National Parks and Wildlife Act, 1974*, the *Environmental Planning and Assessment Act, 1979*, and the *Aboriginal and Torres Strait Islander Heritage Protection Act, 1986*.

The NSW National Parks and Wildlife Service is responsible for the protection of Aboriginal relics on any land within the state. It is an offence under the *NSW National Parks and Wildlife Act, 1974* to knowingly destroy, deface or damage a relic or Aboriginal Place, without the prior written permission of the Director of the NSW NPWS.

The *Environmental Planning and Assessment Act, 1979*, offers broader protection to Aboriginal sites through the requirement that for certain types of development, an Environmental Impact Statement must be prepared, including an assessment of archaeological and anthropological values likely to be affected by the proposal.

The federal *Aboriginal and Torres Strait Islander Heritage Protection Act, 1986*, is aimed at conserving sites of traditional or contemporary significance to Aboriginal people. The Act allows Aboriginal people to apply to the Federal Minister, to have areas or objects of significance protected by legislation.

### 11.2 Management Rationale

The basic goal of cultural resource management in forests is to preserve a representative sample of the archaeological resource. Byrne (1991) presents a strong argument for adoption of an area-based, rather than a site-specific, management strategy. It is based on the concept that Aboriginal behaviour was continuous across space and therefore the archaeological evidence of such behaviour is also continuous in space, as has been demonstrated in this study. Previously, sites have been managed on a site-specific basis and decisions on preserving a representative sample have dealt with individual sites. However, with area-based management, the emphasis shifts to decision-making on what areas are representative. As demonstrated by this and other studies of north-eastern New South Wales forests, the archaeological resource is variable and correlated in part to environmental factors. By preserving a representative range of landform units, the range of archaeological evidence across the landscape is preserved, regardless of the precise nature of variations in artefact density and location. Protection is therefore afforded to the predicted archaeological resource, as well as to the identified archaeological resource.

Byrne (1993:33) identifies two main criteria for selecting areas for reservation. The first concerns the correlations identified between environmental variables and artefact distribution. Priority should be accorded to ensuring a proportion of the environmental zones with highest artefact densities are reserved in a manner that protects the archaeological material from being disturbed by forestry activities (Byrne 1993:33). The second criteria is concerned with the integrity of the artefact distribution pattern as a whole. A continuous distribution of artefacts exists across the study area at varying densities, and representative units with a low artefact density should be included, to preserve a sample truly representative of the overall artefact distribution pattern (Byrne 1993:33).

### 11.3 PMP Classification System

State Forests uses a Preferred Management Priority (PMP) classification system to identify areas with special values. The PMP classification forms a basis for special management of such areas to maintain those values. Categories 1.1.2 to 1.1.9 protect values including recreation, education, research, water catchment, visual resource, flora and fauna, historic sites and Aboriginal sites. The zones which exclude logging in respect of these values, therefore also incidentally protect Aboriginal sites. The exception is PMP Class 1.1.6, for visual resources, in which controlled logging is permitted. Hence, archaeological resources within this category will not be protected (cf. Byrne 1993:34). Category 1.1.9 is specifically for the protection of Aboriginal sites.

#### 11.3.1 Existing Protected Areas

A number of zones within the Dorrigo Three Year Study Area are currently identified under the PMP system. In eastern Chaelundi, narrow zones along Chandlers Creek, Stockyard Creek, Frenchmans Creek and several other watercourses are protected from logging under PMP Class 1.1.7, for their floral and faunal values. The protection in this class extends to forty metres either side of the watercourse. Eastern Chaelundi is currently protected from logging under the Government moratorium on logging of old growth forests.

In the Ellis group, narrow streamside corridors of Lunchtime Creek, Billys Creek and Yellowbank Creek are also excluded from logging under PMP Class 1.1.7.

In the Wild Cattle Creek group, narrow zones are protected along Turnback Creek, Flaggy Creek, Black Bull Creek, Bobo River, Mobong Creek, Morora Creek, Cascade Creek, Moonmerri Creek, the Little Nymboida River and the Nymboida River under PMP Class 1.1.7. The following Flora and Fauna Reserves offer protection under PMP Class 1.1.7; Teak Tree FR, Edwards Plains FR, Black Bull FR, Red Cedar FR, Mobong Creek FR and Dorrigo White Gum FR. Several small areas are protected under PMP Class 1.1.2 for recreation values, including at Mobong Creek Falls, Flaggy Creek Falls and Mobong Creek Picnic Area.

Within the study area, several identified archaeological sites and zones of sensitivity are offered protection from logging. Site MH3/1 in Wild Cattle Creek State Forest is located within the Mobong Creek Falls Recreation Area. Site MR2/1 in Moonpar State Forest is located within the Dorrigo White Gum Flora Reserve.

However, the current reserve system is clearly deficient in terms of protecting a representative sample of the archaeological record of the Three Year Study Area. In the Chaelundi area, no identified sites and few landscape units of high archaeological sensitivity are protected by the current reserves. Drainage lines classed under PMP 1.1.7 are only protected from logging for forty metres either side of the watercourse. This zone may not be wide enough to adequately protect all archaeological sites which may be located adjacent to watercourses, as many may extend further than forty metres from the watercourse.

No areas within the Ellis study block are adequately protected. In the Wild Cattle Creek and Moonpar forests, greater protection is afforded to areas other than watercourses. In particular, the Flora and Fauna Reserves protect a range of toposequences on which sites tend to be located. The current reserve system for these forests is considered to be reasonably adequate.

### 11.3.2 Recommended Additions to the Reserve System

To address the deficiencies in the reserve system, in order to protect from logging a representative sample of the identified and predicted archaeological resource, two courses of action can be considered. Existing reserves can be increased in size or new reserves can be created specifically for archaeological values.

Within the Ellis and Wild Cattle Creek sections of the study area, a number of reserves exist along watercourses and on other topographic units (e.g. ridges, slopes and spurs). No further additions to these reserves are considered necessary for several reasons. The predictive model of site location has identified a very low density of artefact occurrences throughout these forests. The location of highest archaeological sensitivity, the stream/swamp bank unit in the Escarpment landform pattern, which contains site MH3/1, is already protected by watercourse reserves. Given that such a low density of artefacts is predicted for the logged forests and that the potential for sites of significance to exist elsewhere in the Ellis/Wild Cattle Creek areas is extremely low, it is recommended the existing reserve system be maintained without any additions.

In contrast, the survey results and predictive model have identified a high density of artefacts throughout the unlogged forests of eastern Chaelundi, particularly focused along ridgelines and low spurs. Two general courses of action are available to ensure protection of a representative sample of the identified and predicted archaeological resource within the eastern Chaelundi study area:

A) To declare the entire cultural landscapes of either Stockyard (Stop-a-bit) Ridge or Red Herring Ridge as reserves under PMP Class 1.1.9 (both in the Hills landform pattern), in addition to either the total or a substantial sample of Frenchmans Ridge (Low Hills landform pattern). Preserving one complete ridgeline within the Hills landform pattern and portions of the ridgeline within the Low Hills unit would represent the most realistic, 'best case' scenario from a cultural resource management perspective (i.e. it would preserve a substantial portion of the observed and predicted, variable archaeological resource). However, the economic feasability of such an action may be limited, considering the quantity of timber which would be excluded from logging.

B) A more commerciably feasable option may be a compromise, allowing logging in portions of the three ridgelines, but exluding logging from other portions of each ridgeline, which would be protected under PMP Class 1.1.9. The selection of areas to be reserved on each ridgeline would need to be done with consideration to the following factors; predictions of artefact densities for topographic units, locations of identified sites, economic impacts (more feasable to reserve areas meeting the archaeological criteria but which contain lower quantities of timber), ensure a sample of low artefact density units is included, and ensure the samples are of a sufficient size that the range of topographic units are represented and that the value of the sample area as a 'cultural landscape' and its potential for future research as such, is not significantly diminished.

To address a perceived deficiency in the survey sample,. consideration should be given to conducting an archaeological survey of areas along Frenchmans Ridge in close proximity to Chandlers Creek, should these areas be subjected to logging. Such fieldwork should be undertaken in full consultation with the Grafton-Ngerrie Local Aboriginal Land Council and



archaeological value. Further archaeological investigation may be necessary to adequately define the boundaries of the reserve.

The scarred tree component of site RH7/1 is of high significance. It should also be protected within a separate PMP Class 1.1.9 reserve for its archaeological value.

The following artefact scatters located within eastern Chaelundi comprise site complexes and components of cultural landscapes, which are assessed as being of high significance within a local context and of moderate to high significance within a regional context. Hence, it is recommended that where possible, these sites be included within the reserve system proposed for Frenchmans Ridge, Stockyard Ridge and Red Herring Ridge: Sites FR1/1, FR1/2, FR2/1, FR2/2, FR3/1, FR4/1, FR4/2, FR5/1, FR5/2, FR5/3, FR5/4, FR5/5, Isolated Find 2, Frenchmans Ridge 1, Frenchmans Ridge 2, ST1/1, ST1/2, ST1/3, ST3/1, ST4/1, ST5/1, ST5/2, ST6/1, ST7/1, ST7/2, Stockyard Creek 2, Stockyard Creek 3, RH4/1, RH4/2, RH4/3, RH4/4, RH6/1, RH8/1 and RH8/2.

However, it may not be possible to protect all identified sites within the proposed PMP Class 1.1.9 reserve system for East Chaelundi. For any sites which cannot be protected and will subsequently be disturbed by proposed forestry activities, State Forests should seek the support of the Grafton-Ngerrie Local Aboriginal Land Council to obtain a Consent To Destroy Permit for the sites from the National Parks and Wildlife Service. As a condition of the Consent to Destroy Permit, any artefacts identified should be systematically collected. This recommendation can be justified only if a sizable sample of the identified and predicted archaeological resource is protected within the reserve system (i.e. it is adequately representative), then the salvage and destruction of a portion of the identifed resource will be offset by the protection of a reasonable sample.

As the study area largely consists of erosive geomorphological units, few sites were identified with potential for excavatable sub-surface deposits. Sites ST6/1 and RH8/2 on ridgeline saddles potentially contain a shallow deposit and sites RH4/1 and RH4/2 on a low spur and ridge, adjacent to Chandlers Creek, also have potential for deposits. Should proposed forestry activities intend to disturb either of these sites, sub-surface testing should be undertaken to determine if an *in-situ* deposit of artefacts is present.

### 11.5 Management Issues Relating to Aboriginal Concerns

The following recommendations are made to address Aboriginal concerns with cultural heritage issues:

- On-going Liaison between State Forests and the relevant Local Aboriginal Land Councils should be undertaken, to discuss Aboriginal concerns regarding cultural heritage matters.

- No programme of public interpretation of sites should be carried out without full consultation with the relevant Aboriginal communities.

- Any future archaeological fieldwork should involve full consultation with the relevant Aboriginal communities and where necessary, community representatives be employed to assist in investigations.

- That where State Forests intends to seek permission from the National Parks and Wildlife Service to salvage or destroy an archaeological site, the support of the relevant Land Council should be obtained.

### 11.6 Training of State Forests Personnel

As has been identified in previous north-eastern forest studies (e.g. Hall & Lomax 1993a), one possible means of minimising impacts upon archaeological sites is to train State Forests personnel in site identification.

Considering the high potential for obtrusive site types to occur in the previously unlogged Chaelundi forest, it is recommended that State Forests personnel (particularly foresters, surveyors and foremen) be trained to identify obtrusive site types and to actively inspect for such sites during the routine course of their duties. In addition, forestry personnel should be made aware of their responsibilities under the *National Parks and Wildlife Act 1974*.

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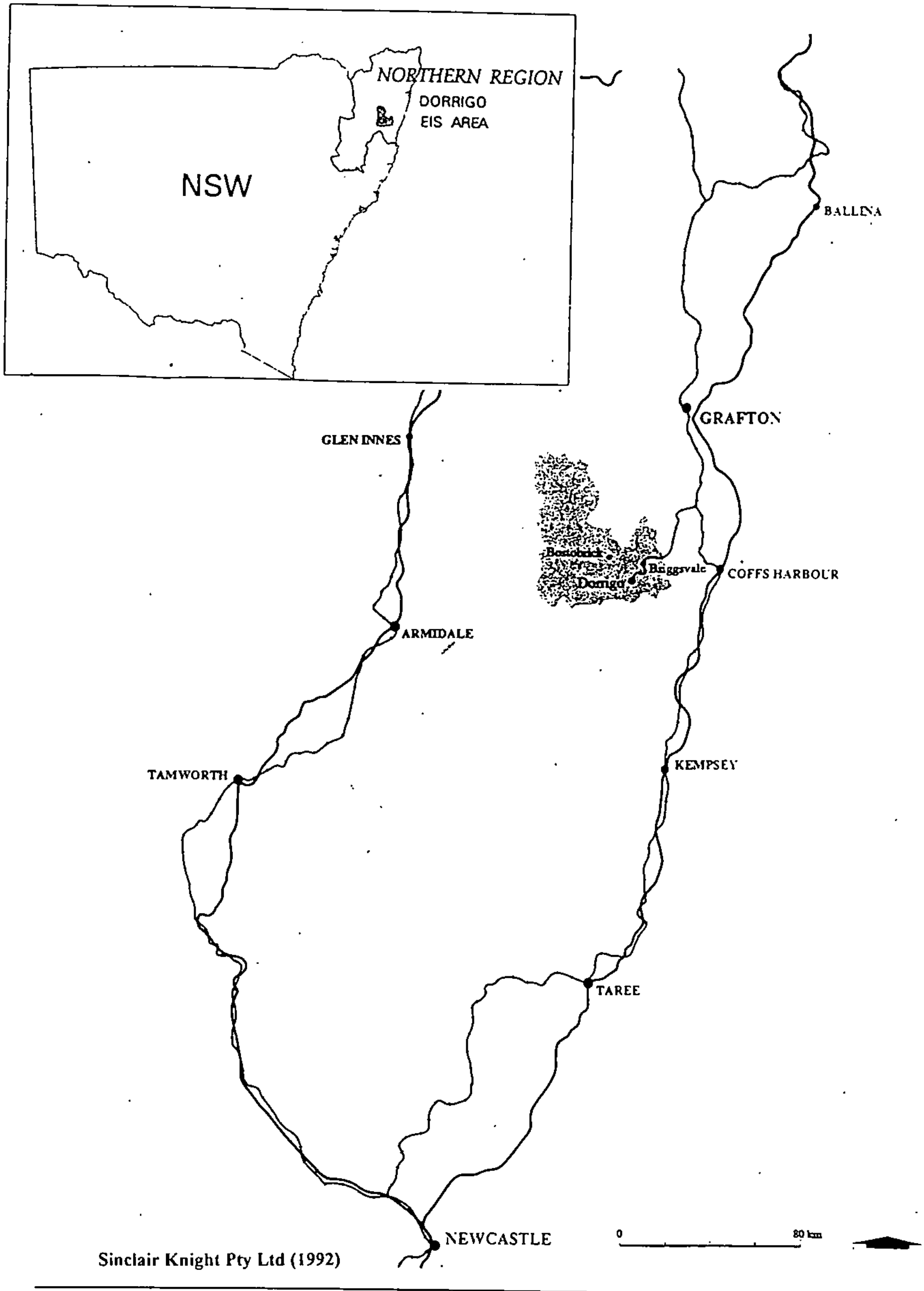
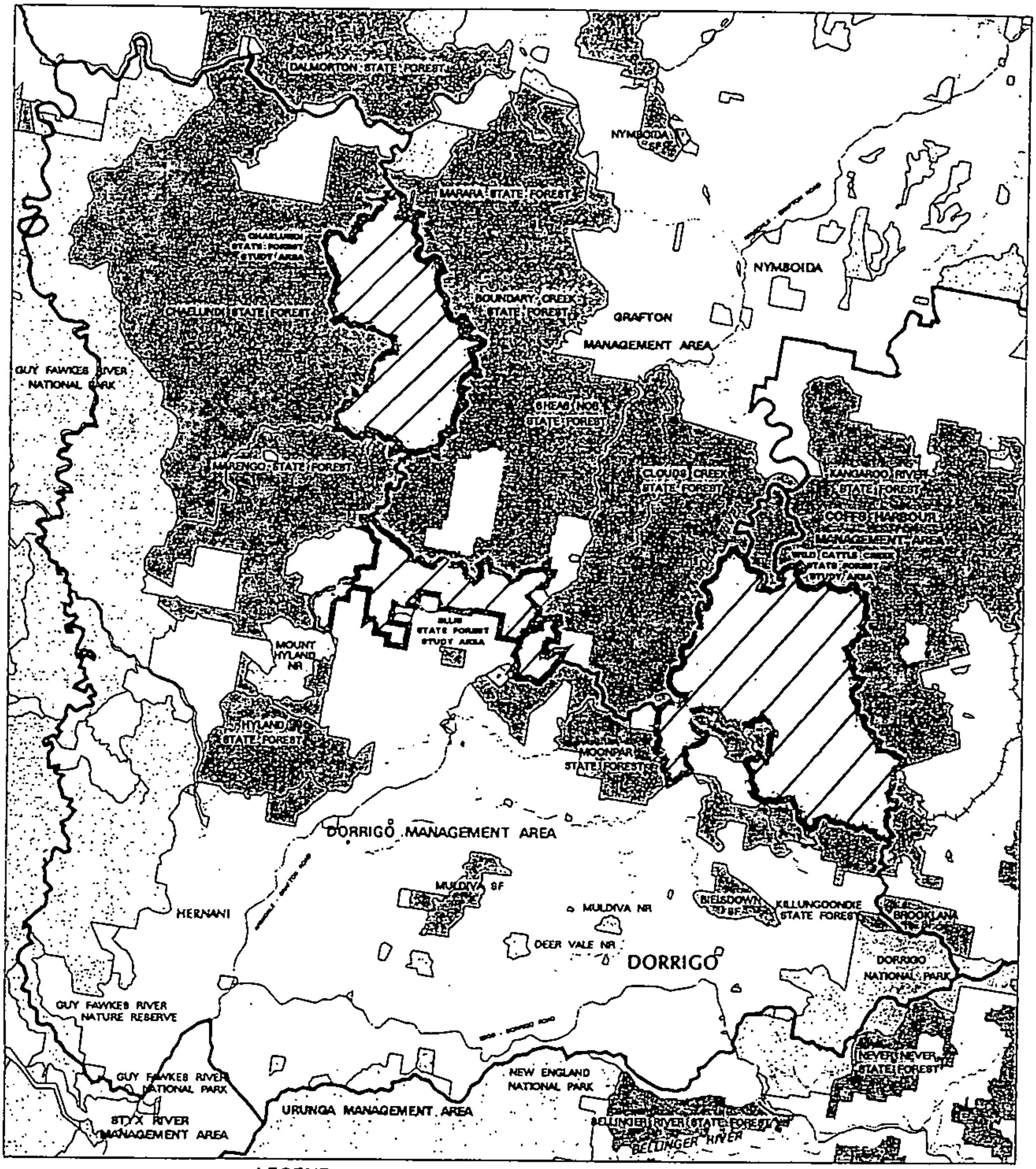
APPENDIX 1: Location of Dorrigo Three Year EIS Study Area




Sinclair Knight Pty Ltd (1992)

APPENDIX 2: Dorrigo Three Year EIS Study Area




LEGEND

Environmental Impact Statement Area Boundary

Management Area Boundary

Highway, Major Road

Drainage

National Park & Nature Reserve

Vacant Crown Land

Leasehold Land

State Forest Outside EIS Study Area

State Forest EIS Study Area

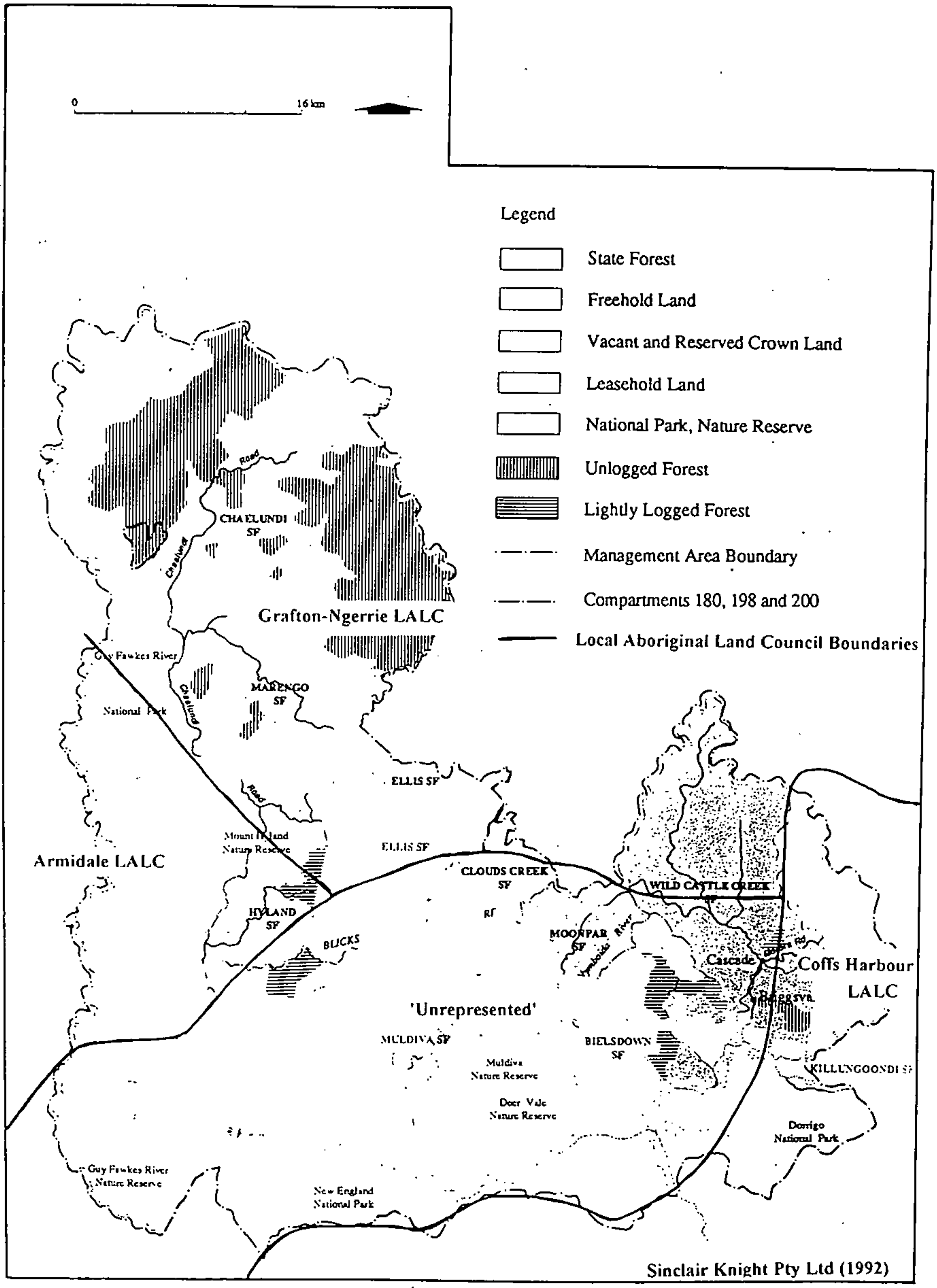
N

SCALE 1 : 375000

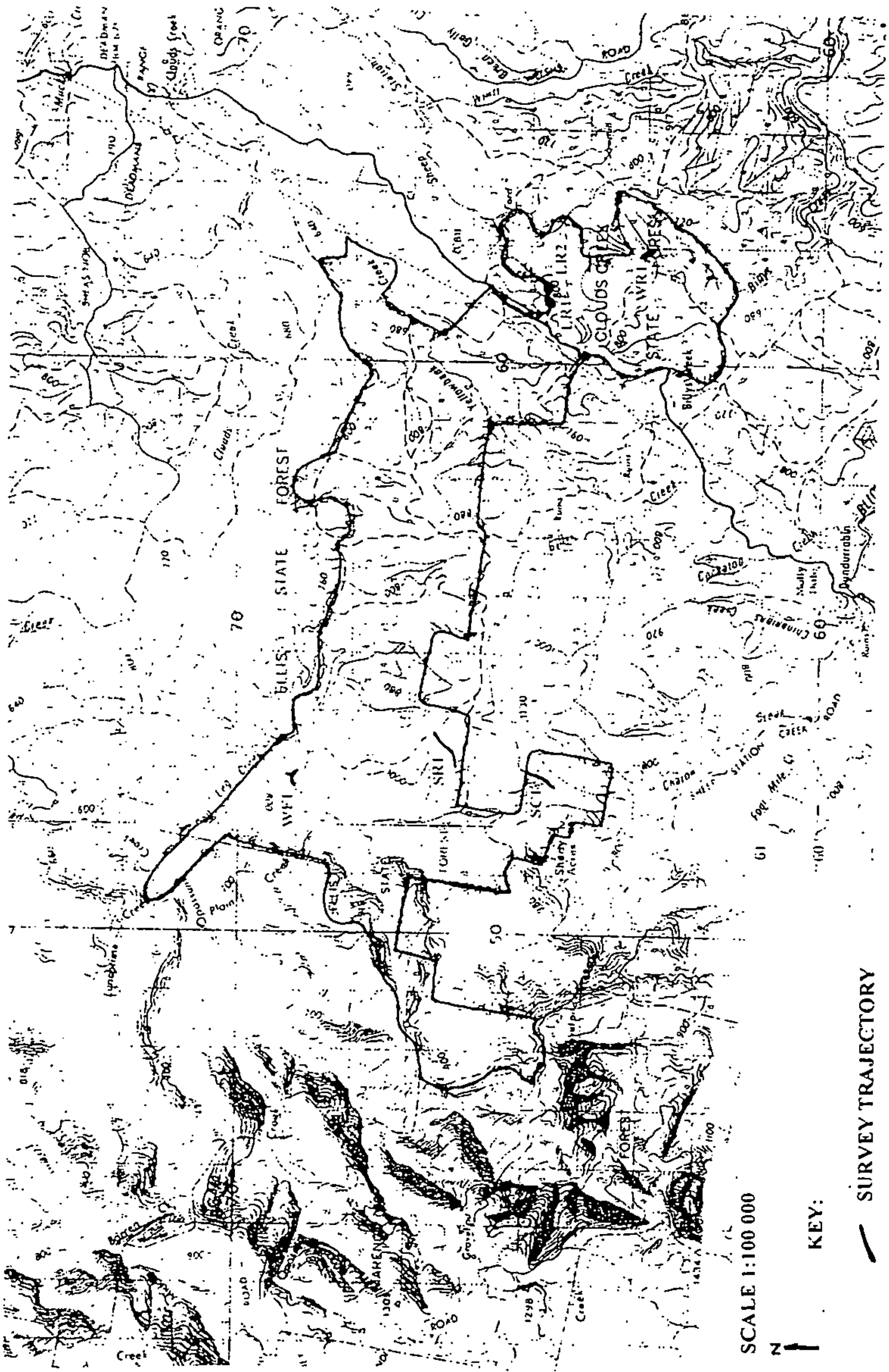
FORESTS

STATE FORESTS of NSW
GIS BRANCH

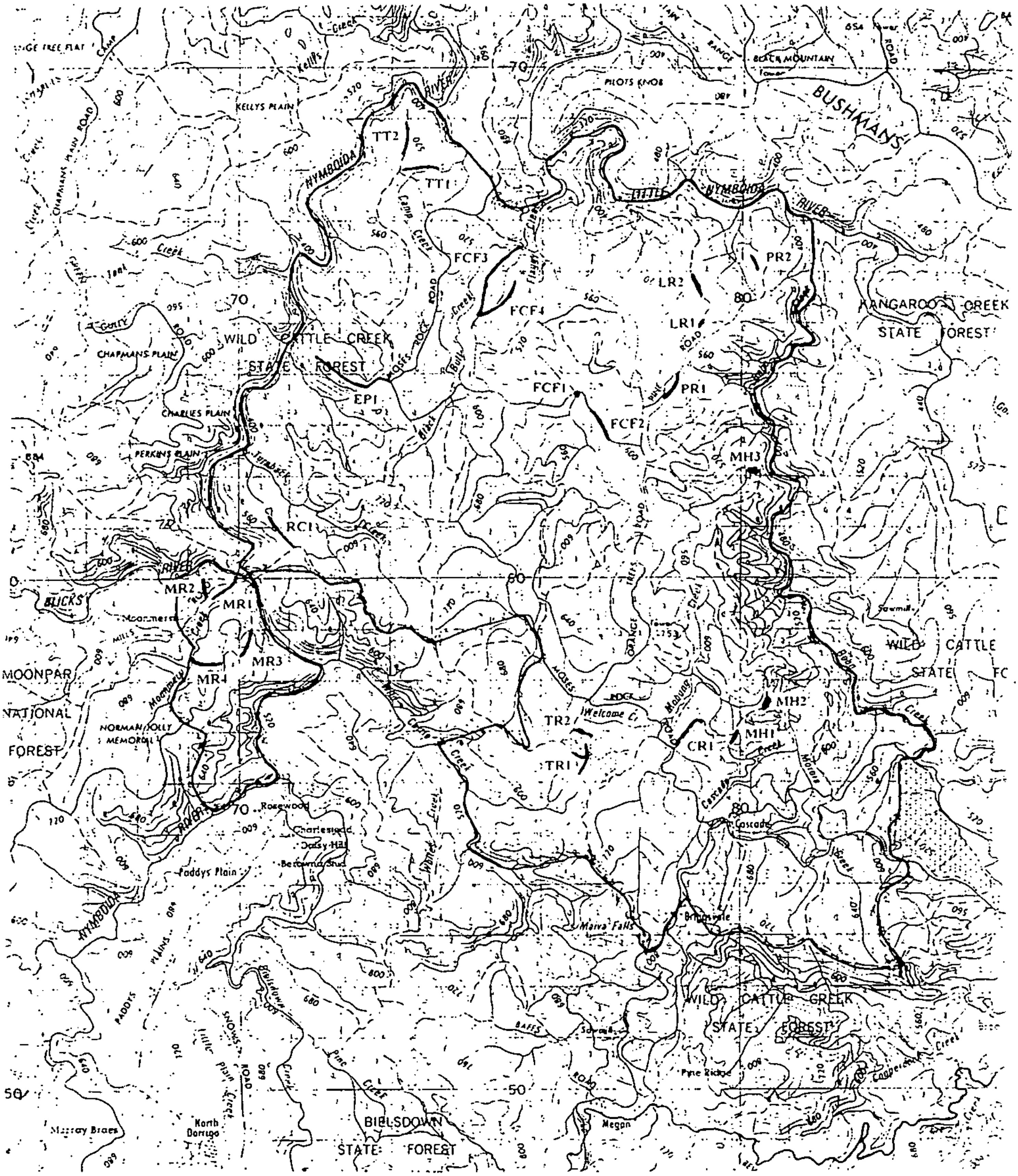
APPENDIX 3: Local Aboriginal Land Council Boundaries



APPENDIX 4a: Plan of Survey Trajectories - Ellis Forests



APPENDIX 4b: Plan of Survey Trajectories - Wild Cattle Creek Forests

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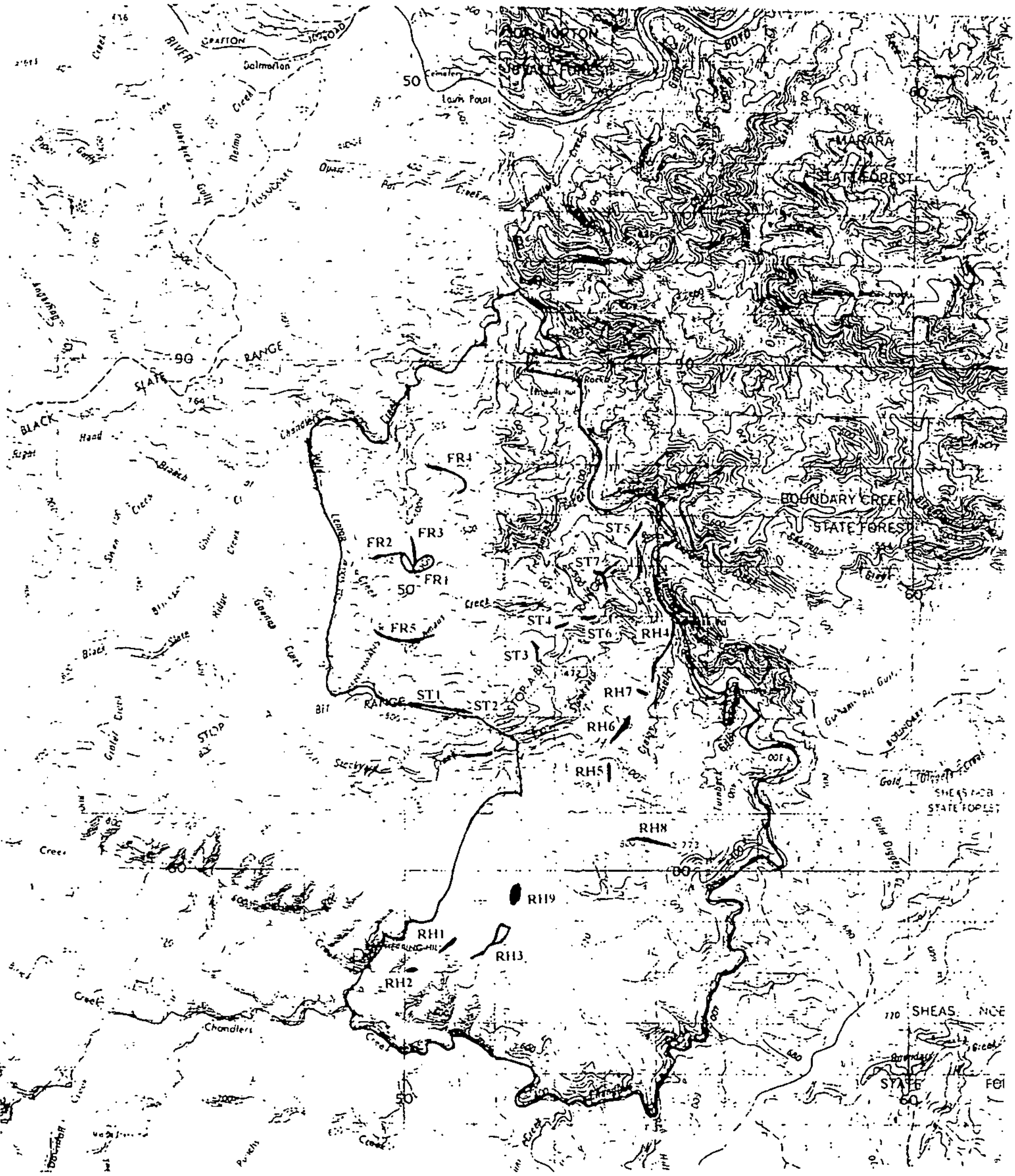
SURVEY TRAJECTORY

APPENDIX 4c: Plan of Survey Trajectories - Chaelundi Forests

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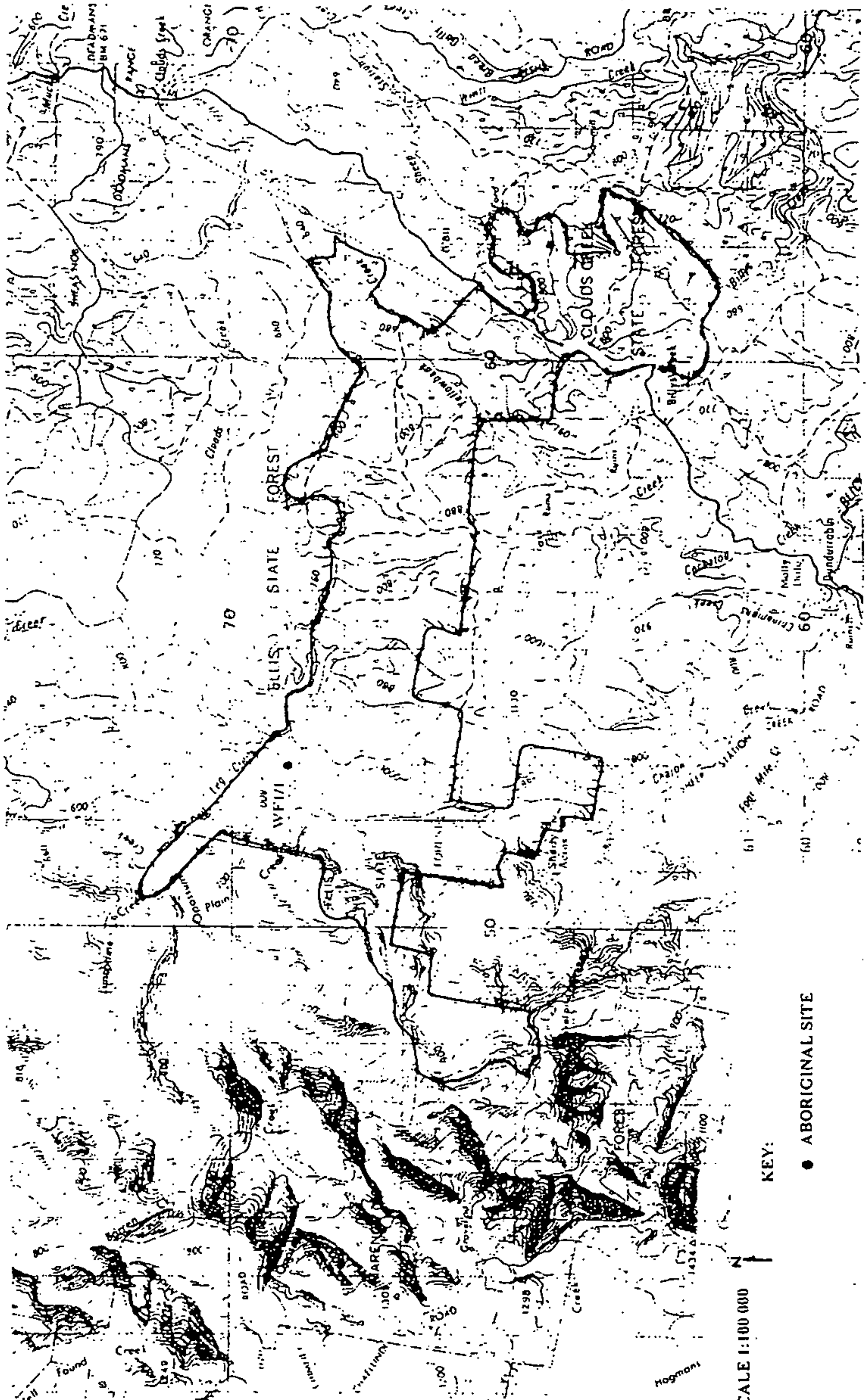
KEY:

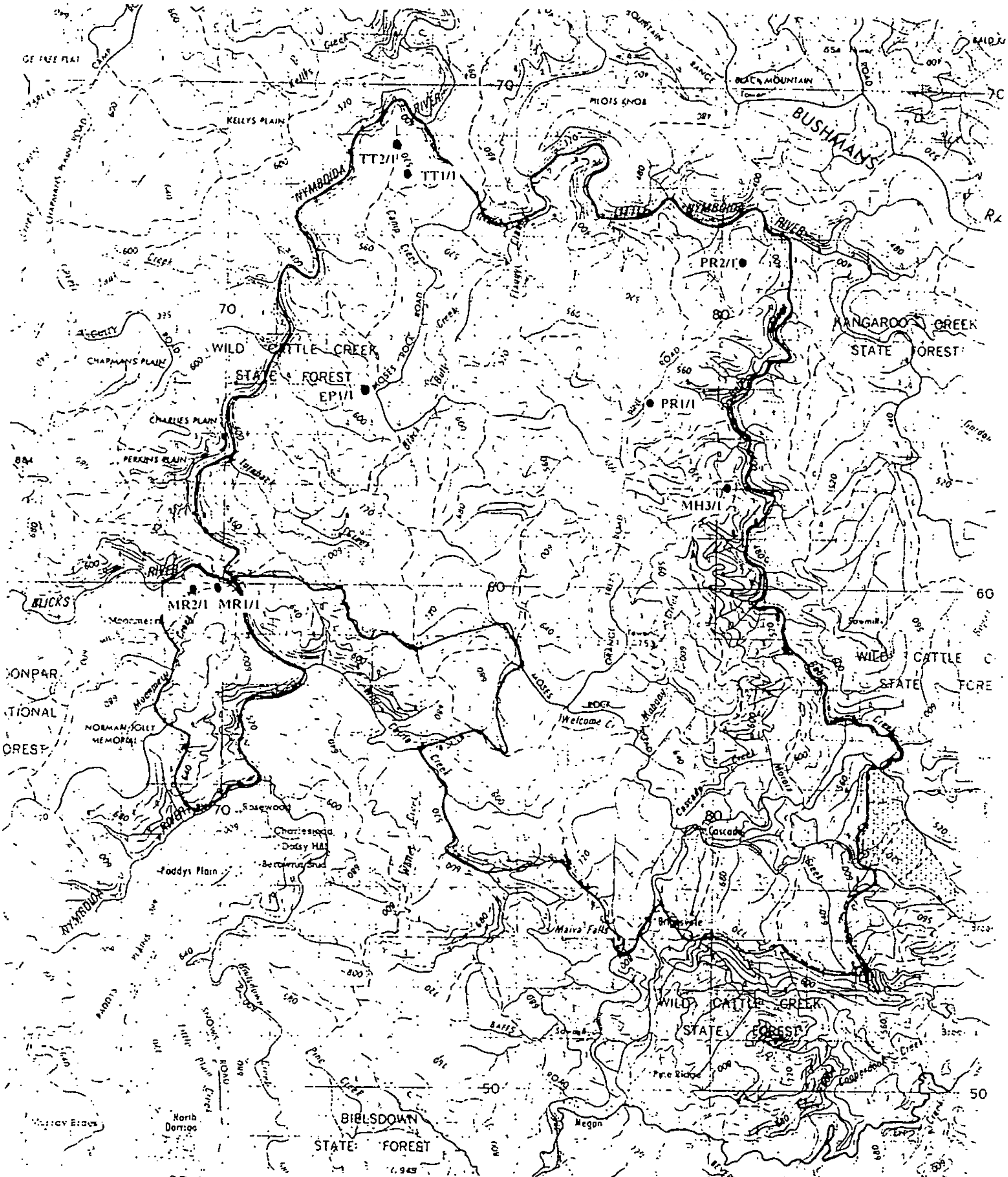
SURVEY TRAJECTORY

FR = FRENCHMANS RIDGE
RH = RED HERRING
ST = STOCKYARD

## APPENDIX 5a: Plan of Sites Located - Ellis Forests



## APPENDIX 5b: Plan of Sites Located - Wild Cattle Creek Forests

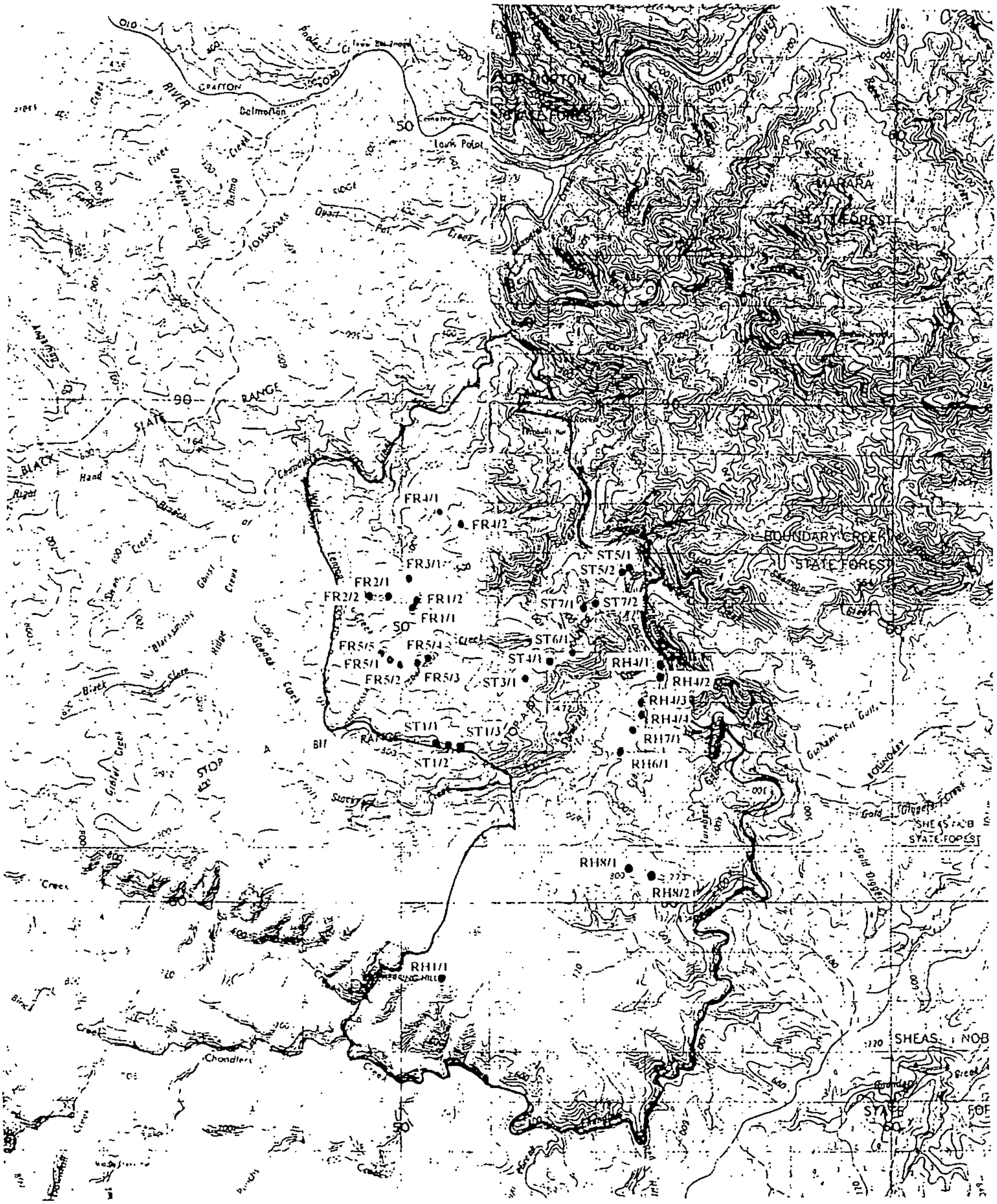



SCALE 1:100 000

KEY:

● ABORIGINAL SITE

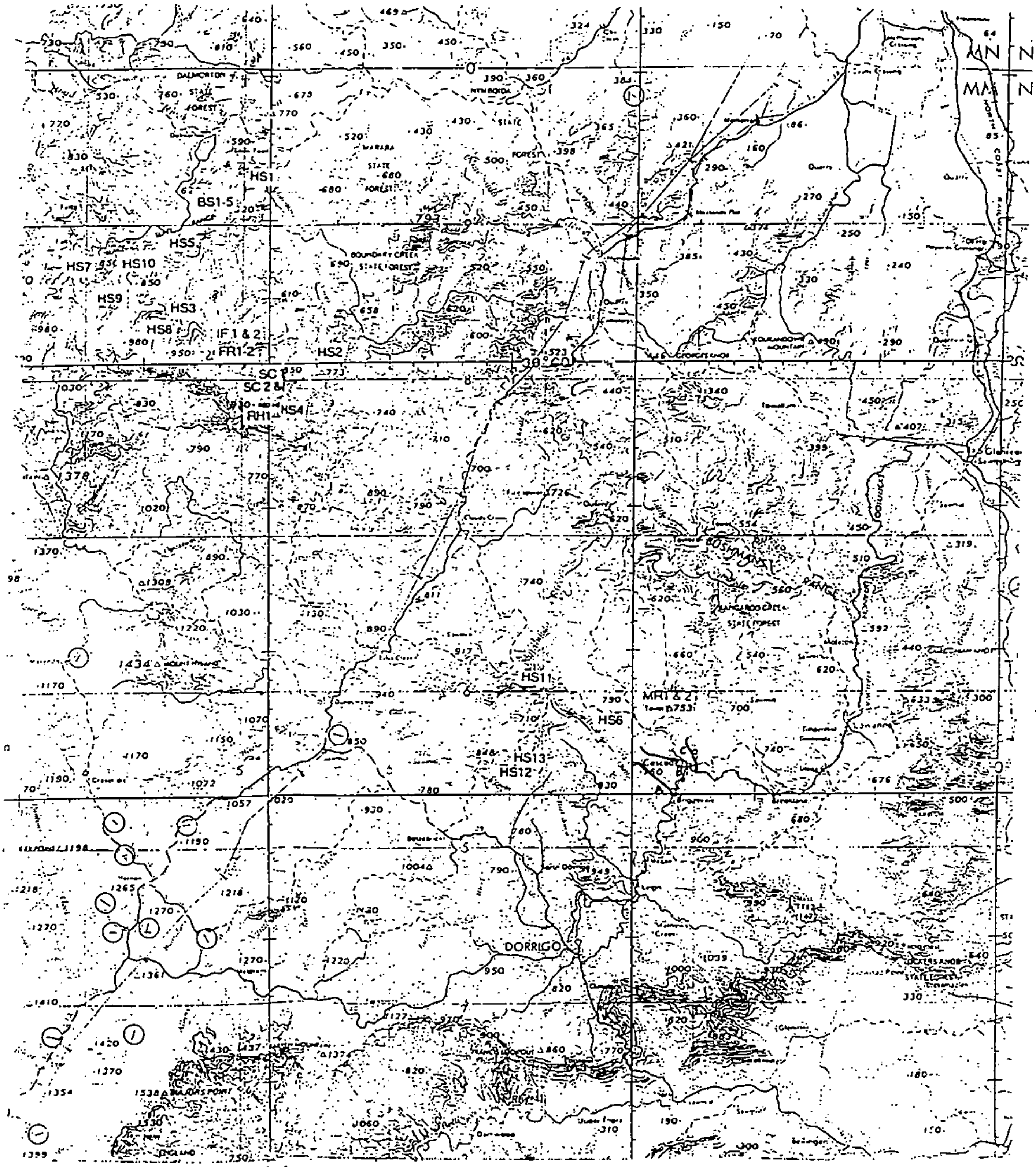
APPENDIX 5c: Plan of Sites Located - Chaelundi Forests




SCALE 1:100 000 KEY:

● ABORIGINAL SITE

## APPENDIX 5d: Plan of Previously Recorded Sites




1:250,000 topographic maps (Comber 1992:80)

KEY:

MR1 = Moses Rock 1
IF1& 2 = Individual Find 1 and 2
FR1-2 = Frenchmans Ridge 1 and 2
SC1, 2 & 3 = Stockyard Creek 1, 2 and 3
RH1 = Red Herring 1

## APPENDIX 6: Glossary

Toposequence/Landform Element:

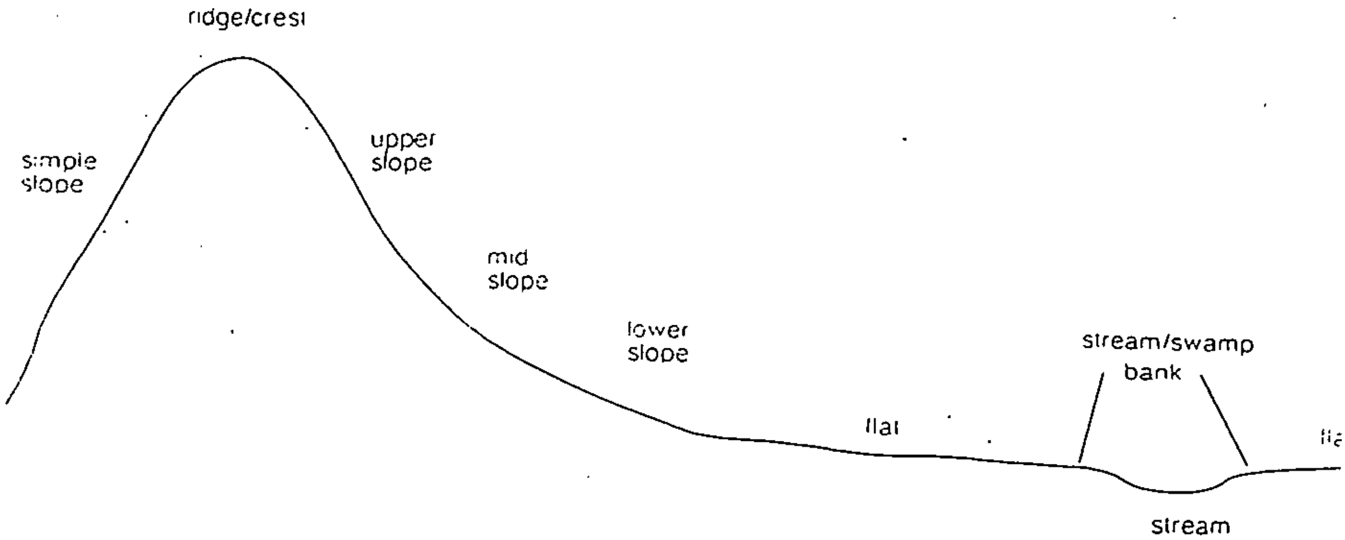
| | |
|---|---|
| Crest: | stands above all, or almost all, points in the adjacent terrain; characteristically smoothly convex upwards. |
| Ridge: | compound element comprising a narrow crest and immediately adjoining slope with crest length being greater than the width of the element. |
| Upper slope: | adjacent below a crest, ridge or flat and not adjacent above a flat or depression. |
| Mid slope: | not adjacent below a crest, ridge or flat and not adjacent above a flat or depression. |
| Lower slope: | not adjacent below a crest, ridge or flat and adjacent above a flat or depression. |
| Simple slope: | adjacent below a crest, ridge or flat and adjacent above a flat or depression. |
| Flat: | level or very gently inclined surface and adjacent to watercourse. |
| Plain: | level or very gently inclined surface and not adjacent to watercourse. |
| Saddle: | lower, relatively level point on crest or ridge. |
| Low Spur: | compound element comprising flat or gently inclined ridge extending from footslopes of locally dominant or subsidiary ridge or crest to stream flat or bank. |

Component Form:

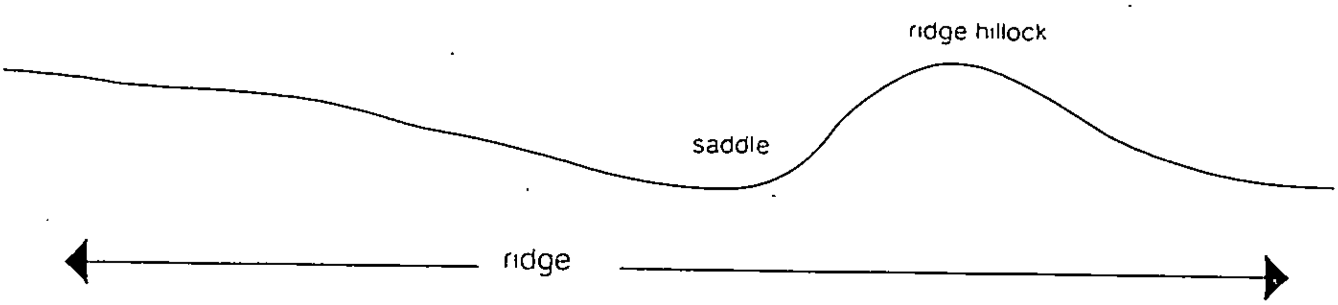
| | |
|---|---|
| Bulldozer push: | where bulldozer or similar has merely pushed over vegetation with only limited ground disturbance, usually only one bulldozer blade wide. |
| Unformed track: | where vegetation and ground surface has been cleared over a variable width with relatively shallow ground disturbance and no imported gravels, surface forming, major drainage works or infilling. |
| Formed track: | where gravels have been imported for surface forming and infill, and/or drainage works an banking have been carried out, usually wider than other types of tracks. |
| Cutting: | ground surface, soil, sediment and bedrock exposed in a usually sloping cross-section in places along the sides of roads and formed tracks. |
| Quarry: | gravel pit, sand quarry, borrow pit, etc. |
| Logged coupe: | area of ground with significant ground surface and sub-surface exposures through logging and ancillary works. |

| | |
|---|---|
| Logging dump: | as above, but where ground disturbance is most intense. |
| Regenerating Coupe/dump: | where ground surface has stabilised and vegetation has taken. |
| Animal track/ camp | minimal ground disturbance, but reasonable exposure resulting from regular movement of animals. |
| Natural: | no obvious signs of any animal or human process of disturbance. |
| Stream-Order: | First order streams are unbranched streams at the headwaters of catchments. Where two such streams join they become a second-order stream. Where two second-order stream joins they become a third order stream, and so on. |

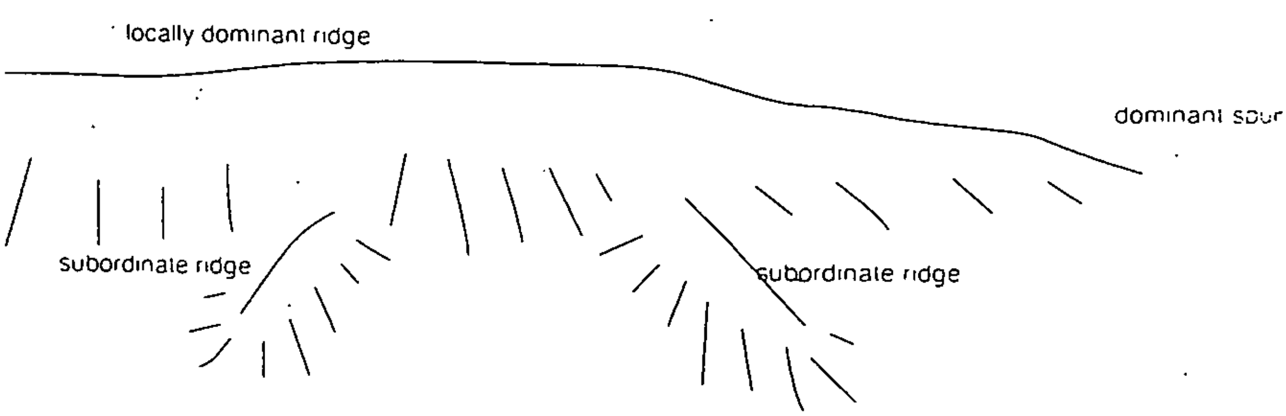
Toposequence elements




Ridge toposequence elements




Local ridge system categories



## ENVIRONMENTAL COMPONENT RECORDING FORM

1. Sample Trajectory Name __________ 2. Component No. __________

**3. Geology**
1. recent sand & gravels
2. argillites, greywacke & slate
3. argillites with minor quartz veins
4. argillites with abundant quartz veins & intermediate volcanics
5. sandstone, siltstone & shale
6. conglomerate, sandstone & shale
7. quartz sandstone
8. granitic rocks
9. acid volcanics
10. basalt
11. [illegible]
12. [illegible]

**4. Land system**
1. escarpment ranges
2. ranges
3. coastal ranges
4. volcanic ranges
6. lowlands
7. escarpment range foothills

**5. Landform pattern**
1. plain (0-9m)
2. flood plain
3. hills (90-300m)
4. low hills(30-90m)
5. mountains (>300m)
6. plateau
7. rises (9-30m)
8. escarpment

**6. Local ridge system category**
1. locally dominant ridge
2. subsidiary ridge
3. dominant spur
4. absence of dominant ridges/spurs

**7. Toposequence**
1. crest
2. ridge
3. saddle
4. ridge hillock
5. low spur
6. simple slope
7. upper slope waxing
8. upper slope maximal
9. mid-slope maximal
10. mid-slope waning
11. lower slope maximal
12. lower slope waning
13. mid-slope minimal (bench)
14. flat
15. plain
16. stream /swamp bank

**8. Geomorphology**
A= aggrading E= eroding 0= aggrading or eroding

**9. Soil**
1. sand with stone/gravel
2. sand without stone/gravel
3. loam with stone/gravel
4. loam without stone/gravel
5. clay with stone gravel
7. clay without stone/gravel
8. bedrock/lithsol
9. peat/swamp

**10. Native vegetation**
1. rain forest
2. dry rain forest
3. wet sclerophyll
4. dry sclerophyll forest
5. dry sclerophyll woodland
6. swamp sclerophyll/dry sclerophyll/swamp
7. heath/swamp
8. grassland
9. dry rain forest/wet sclerophyll
10. dry sclerophyll/wet sclerophyll
11. dry sclerophyll/rain forest

**11. Slope**
1. 0-2 degrees level/v. gently inclined
2. >2-5 degrees gently inclined
3. >5-10 degrees moderately inclined
4. >10-20 degrees inclined
5. 20-30 degrees steep
6. >30-45 degrees v. steep
7. >45-70 precipitous
8. >70 degrees clifted

**12. Landuse**
1. native vegetation
2. selectively logged
3. fully logged
4. recently burnt
5. pasture
6. plantation
7. forestry/recreation camp.

**13. Component form**
1. bulldozer push
2. unformed track
3. formed track
4. cutting/batter
5. quarry
6. logging coupe
7. regenerating coupe
8. log dump
9. regenerating log dump
10. animal track/camp
11. natural

**14. Detection limiting factors**
1. quartz gravels
3. deep sediments
4. redeposited sediments
5. deep excavation/erosion
6. heaved up
7. vegetation
8. litter and/or gravels

15. Component length (m) __________ 16. Component width (m) __________

17. Surface visibility % __________ 18. Archaeological visibility % __________

19. Effective coverage (m2) 20. Artifact occurrence __________

21. Artifact No. __________

**22. Distance to water**
1. 0-200m
2. 201-400m
3. 401-600m
4. 601-800m
5. 801-100m
6. 1000-2000m
7. 2000+m

**23. Water source**
1. 1st order stream
2. 2nd order stream
3. 3rd order stream
4. 4th order stream
5. intermittent swamp
6. perennial swamp

24. Altitude (MABSL) __________

# SITE RECORDING FORM

1:250 000 map sheet:____________________ 1:25 000 map sheet:____________________

AMG Grid Ref. 250 K [ | | | | | ] E 25K    250 K [ | | | | | | ] N 25K

Site Name/Code [ ]

Sample Trajectory Code [ ] Component Code [ ]

Site Type

1. artifact scatter
2. isolated artifact
3. scarred tree
4. quarry
5. shelter/cave with deposit
6. midden
7. stone arrangement
8. art/engraving
9. skeletal material/burial

Land Status

1. State Forest/Reserve
2. National Park/Reserve
3. Proposed National park
4. Vacant Crown land
5. Leasehold
6. Freehold
7. Other:________________

Access Instructions:

Landform Element [ ] Slope [ ] Aspect [ ] Altitude [ ]

(for codes see Component Recording Form)

Exposure Type

1. bulldozer push
2. unformed track
3. formed track
4. cutting/batter
5. quarry
6. logging coupe
7. regenerating coupe
8. log dump
9. regenerating coupe
10. animal track/camp
11. natural

Distance from drinking water: Source:

Resource Zone:

Site Dimensions: Length: m Width: m Area: m2

Surface visibility:________________%

Site description:

## RECORDING FORM

Sketch Map(general location of site)

Site Plan (show maximum dimensions, north etc. for open sites show areas of different artifact density).

# STONE ARTEFACT RECORDING FORM

Site Name/Code:

Intensity of Recording

Total

Area/s examined and m²

Sample

show on

} Estimate of total No. of artefacts

Summary

site plan

25-50 51-100 101-500 >500

Artefact density - Max: /m² Min: /m² Mean: /m²

Comments:

Deposit: 01. surface scatter only 02. subsurface/stratified 03. undefined

| Sub-area | Artefact Type | Raw Material | L cm | W cm | T cm | Cort % | -ex Type | Comments |
|---|---|---|---|---|---|---|---|---|
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Artefact Types: Flake = Fl; Broken Flake = BrFl; Core = Cr; Flaked Piece = FP; Backed Blade = BB; Geometric Microlith = Geom; Retouched Flake = RetFl; Axe = Axe; Hammerstone = Hst; Anvil = Anv; Bipolar = Bip
Raw Material: Silcrete = Sil; Quartz = Qu; Quartzite = Qit; Chert = Ch; Sandstone = Ss; Indurated Mudstone = Im; Basalt = Ba; Acid Volcanic = Avol; Other = Oth (specify if possible)
Cortex: % = % of artefact surface with cortex (with Flakes only count % of dorsal surface);
Type = 01. water worn peble; 02. hillslope/vein
Comments: Flakes - platform (focal or broad, prepared or unprepared); termination (feather, hinge or step). Cores - (single, bifacial or multi-platform), (lenticular, conical, blocky, prismatic, etc), no. of flake scars, length of flake scars, exhausted. Broken Flakes - proximal, distal, medial or lateral. Retouched artefacts - location and type of retouch, shape

## APPENDIX 8: Artefact Recording Code

| | |
|---|---|
| Anvil: | Whole or fragment of flat pebble with evidence of pitting caused by repeated flaking episodes. |
| Axe/Hatchet: | Unifacially or bifacially flaked or ground pebble or quarry blank. |
| Backed Blade: | Blade systematically trimmed on one margin to produced a blunted 'back', as opposed to the sharp edge of the opposite margin. |
| Bipolar Core: | Core with opposing platforms and/or a platform opposed to an area of crushing. |
| Blade: | Flake with sub-parallel to parallel margins and a dorsal ridge. |
| Broken Flake: | Artefact possessing diagnostic characteristics of flake but which has been broken laterally or longitudinally. |
| Chip: | Artefact with maximum dimension of less than ten millimetres. |
| Chopper: | Large flake or flaked pebble with working margin opposite a thick margin. |
| Core: | Contains one or more whole negative flake scars (or blade scars for blade cores), with no positive flake scars present. The piece of stone from which flakes or blades are removed. |
| Distal: | Termination end of artefact. |
| Flake: | Piece of stone struck off a core and exhibiting characteristics of bulb of percussion and a striking platform, eraillure scar or ring crack. |
| Flaked piece: | Attributes indicative of flaking (e.g. negative flake scars), but lacking diagnostic features of flake. |
| Hammerstone: | Rounded river pebble with evidence of pitting caused by numerous flaking events. |
| Lateral: | Refers to sides of artefact. |
| Length: | On flakes, measurement in millimetres from striking platform to distal end, or otherwise maximum dimension of artefact. |
| Manuport: | Any piece of stone exotic to its immediate location but which exhibits no evidence of flaking or other modification. |
| Medial: | Middle section of artefact. |
| Platform: | Area where blow was applied to remove a flake from the core. A broad platform covers the entire top of the flake when viewed from above and a focal platform does not. |
| Pebble artefact: | Whole or broken pebble that has been modified by flaking. |

**Point:** Microlithic implement shaped to a point at distal end.

**Proximal:** Platform end of flake.

**Retouched:** Secondary flaking along edge of flake or blade which has occurred after the initial removal of the flake or blade from a core.

**Thickness:** Measurement in millimetres between widest point of dorsal surface to ventral surface.

**Thumbnail Scraper:** Microlithic flake with regular unifacial retouch.

**Utilised Flake:** Flake demonstrating evidence of use-wear or edge-damage resulting from its use as an implement.

**Utilised Unmodified Piece:** Large blocky piece used opportunistically as a chopper. Exhibits edge damage along utilised margin.

**Width:** Widest point of artefact at right angles to its length, measured in millimetres.

## APPENDIX 9: Survey Coverage Database

LEGEND:

| | |
|---|---|
| Column 2: | Trajectory: Survey Trajectory name. |
| Column 3: | Component: Component number (within Trajectory). |
| Column 4: | Geol: Geological formation. Refer to Trajectory Recording Form, (Appendix 7), for code. |
| Column 5: | L/system: Land system (refer to code in Appendix 7). |
| Column 6: | L/pattern: Landform pattern (refer to code in Appendix 7). |
| Column 7: | Topo: Topographic unit (refer to code in Appendix 7). |
| Column 8: | Geom.: Geomorphological Regime (refer to code in Appendix 7). |
| Column 9: | Soil: Soil texture (refer to code in Appendix 7). |
| Column 10: | Veg.: Vegetation (refer to code in Appendix 7). |
| Column 11: | Slope. (refer to code in Appendix 7). |
| Column 12: | L/use: Land use. Post-contact land use of area. (refer to code in Appendix 7). |
| Column 13: | Comp.frm: Component Form. Type and surface characteristics of Component (refer to code in Appendix 7). |
| Column 14: | DLF: Detection Limiting Factors. Variables which effect the extent to which archaeological material can be located (refer to code in Appendix 7). |
| Column 15: | Length: Component length (in metres). |
| Column 16: | Width: Component width (in metres). |
| Column 17: | Surf.Vis: Surface Visibility. Percentage of Component where ground surface soil is exposed. |
| Column 18: | Arch.Vis: Archaeological Visibility. Percentage of Component where conditions permit the observation of archaeological material. |
| Column 19: | Eff.Cover m2: Effective surface Coverage (measured in metres squared). Total effective survey coverage for Component. |
| Column 20: | Art.occ: Artefact Occurrence. Number of artefact occurrences within Component. |
| Column 21: | Art.no.: Artefact Number. Total number of artefacts located in Component. |
| Column 22: | Dis.water: Distance to Water. Distance to nearest water source marked on 1:25 000 topographic maps (refer to Appendix 7 for codes). |
| Column 23: | Source: Stream order of water source (refer to Appendix 7 for codes). |
| Column 24: | ASL(m): Altitude measured in metres above-sea-level. |

## Dorrigo Three Year MA Coverage Data

| Row | Trajectory | Component | Geol. | L/system | L/pattern | Topo. | Geom. | Soil | Veg. | Slope | L/use | Comp.frm. | DLF | Length | Width | Surf.Vis. | Arch.vis. | Eff.cover m2 | Art.occ. | Art.no. | Dis.water | Source | ASL(m) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | LR1 | 1 | 11 | 1 | 3 | 4 | 2 | 3 | 3 | 1 | 3 | 1 | 8 | 80 | 3 | 2 | 2 | 5 | 0 | 0 | 2 | 1 | 830 |
| 2 | LR2 | 1 | 11 | 1 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 8 | 40 | 3 | 10 | 10 | 12 | 0 | 0 | 3 | 1 | 840 |
| 3 | LR2 | 2 | 11 | 1 | 3 | 4 | 2 | 3 | 3 | 1 | 3 | 3 | 8 | 100 | 3 | 5 | 5 | 15 | 0 | 0 | 3 | 1 | 850 |
| 4 | LR2 | 3 | 11 | 1 | 3 | 4 | 2 | 3 | 3 | 1 | 3 | 7 | 7 | 30 | 3 | 10 | 10 | 9 | 0 | 0 | 3 | 1 | 850 |
| 5 | SC1 | 1 | 11 | 1 | 4 | 7 | 2 | 3 | 3 | 2 | 3 | 3 | 8 | 100 | 3 | 15 | 10 | 30 | 0 | 0 | 1 | 1 | 980 |
| 6 | SC1 | 2 | 11 | 1 | 4 | 8 | 2 | 3 | 3 | 2 | 3 | 3 | 8 | 140 | 3 | 15 | 10 | 42 | 0 | 0 | 1 | 1 | 1000 |
| 7 | SC1 | 3 | 11 | 1 | 4 | 1 | 2 | 3 | 3 | 1 | 3 | 3 | 8 | 240 | 3 | 20 | 15 | 108 | 0 | 0 | 2 | 1 | 1020 |
| 8 | SC1 | 4 | 11 | 1 | 4 | 6 | 2 | 3 | 3 | 2 | 3 | 3 | 8 | 210 | 3 | 10 | 10 | 63 | 0 | 0 | 2 | 1 | 1030 |
| 9 | SR1 | 1 | 11 | 1 | 4 | 6 | 2 | 3 | 3 | 2 | 3 | 3 | 8 | 120 | 3 | 10 | 10 | 36 | 0 | 0 | 3 | 1 | 1090 |
| 10 | SR1 | 2 | 11 | 1 | 4 | 2 | 2 | 3 | 3 | 1 | 3 | 3 | 8 | 300 | 3 | 10 | 10 | 90 | 0 | 0 | 3 | 1 | 1080 |
| 11 | WF1 | 1 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 1 | 3 | 7 | 7 | 50 | 20 | 10 | 10 | 100 | 0 | 0 | 2 | 1 | 950 |
| 12 | WF1 | 2 | 11 | 1 | 3 | 1 | 2 | 3 | 4 | 1 | 3+4 | 7 | 7 | 140 | 20 | 15 | 15 | 420 | 1 | 1 | 2 | 1 | 940 |
| 13 | WF1 | 3 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 2 | 3+4 | 7 | 8 | 150 | 20 | 15 | 15 | 450 | 0 | 0 | 2 | 1 | 940 |
| 14 | WR1 | 1 | 11 | 1 | 3 | 8 | 2 | 3 | 3 | 2 | 3 | 3 | 8 | 120 | 3 | 1 | 1 | 4 | 0 | 0 | 2 | 1 | 810 |
| 15 | WR1 | 2 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 1 | 3 | 8 | 8 | 220 | 3 | 2 | 2 | 13 | 0 | 0 | 2 | 1 | 820 |
| 16 | CR1 | 1 | 11 | 1 | 4 | 5 | 2 | 5 | 3 | 2 | 2 | 3 | 8 | 300 | 3 | 10 | 10 | 90 | 0 | 0 | 1 | 1 | 610 |
| 17 | CR1 | 2 | 11 | 1 | 4 | 5 | 2 | 5 | 3 | 3 | 3 | 3 | 8 | 100 | 3 | 10 | 10 | 30 | 0 | 0 | 1 | 1 | 620 |
| 18 | CR1 | 3 | 11 | 1 | 4 | 5 | 2 | 5 | 3 | 1 | 3 | 3 | 8 | 60 | 3 | 5 | 5 | 9 | 0 | 0 | 1 | 1 | 620 |
| 19 | CR1 | 4 | 11 | 1 | 4 | 5 | 2 | 5 | 3 | 2 | 3 | 3 | 8 | 60 | 3 | 2 | 2 | 4 | 0 | 0 | 1 | 1 | 630 |
| 20 | CR1 | 5 | 11 | 1 | 4 | 1 | 2 | 5 | 3 | 1 | 3 | 3 | 8 | 80 | 3 | 1 | 1 | 2 | 0 | 0 | 1 | 1 | 630 |
| 21 | EP1 | 1 | 11 | 1 | 4 | 2 | 2 | 3 | 4 | 2 | 3 | 3 | 8 | 250 | 3 | 10 | 10 | 75 | 1 | 1 | 1 | 1 | 700 |
| 22 | EP1 | 2 | 11 | 1 | 4 | 8 | 2 | 3 | 4 | 3 | 3 | 3 | 8 | 100 | 3 | 10 | 10 | 30 | 0 | 0 | 2 | 1 | 710 |
| 23 | EP1 | 3 | 11 | 1 | 4 | 3 | 2 | 3 | 4 | 1 | 3 | 3 | 8 | 40 | 3 | 5 | 5 | 6 | 0 | 0 | 2 | 1 | 700 |
| 24 | EP1 | 4 | 11 | 1 | 4 | 7 | 2 | 3 | 4 | 3 | 3 | 4 | 8 | 400 | 3 | 5 | 5 | 60 | 0 | 0 | 1 | 1 | 680 |
| 25 | EP1 | 5 | 11 | 1 | 4 | 2 | 2 | 3 | 4 | 1 | 2 | 3 | 8 | 80 | 3 | 3 | 3 | 7 | 0 | 0 | 2 | 1 | 640 |
| 26 | EP1 | 6 | 11 | 1 | 4 | 8 | 2 | 3 | 4 | 2 | 2 | 3 | 8 | 100 | 3 | 3 | 3 | 9 | 0 | 0 | 2 | 1 | 630 |
| 27 | EP1 | 7 | 11 | 1 | 4 | 3 | 2 | 3 | 4 | 1 | 2 | 3 | 8 | 100 | 3 | 5 | 5 | 15 | 0 | 0 | 2 | 1 | 630 |
| 28 | EP1 | 8 | 11 | 1 | 4 | 4 | 2 | 3 | 4 | 1 | 2 | 3 | 8 | 100 | 3 | 5 | 5 | 15 | 0 | 0 | 2 | 1 | 620 |
| 29 | FCF1 | 1 | 11 | 1 | 8 | 16 | 1 | 8 | 3 | 1 | 2 | 3 | 4 | 40 | 3 | 10 | 5 | 6 | 0 | 0 | 1 | 3 | 500 |
| 30 | FCF2 | 1 | 11 | 1 | 4 | 5 | 2 | 3 | 4 | 1 | 2 | 3 | 8 | 450 | 3 | 20 | 20 | 270 | 0 | 0 | 1 | 1 | 580 |
| 31 | FCF3 | 1 | 11 | 1 | 4 | 12 | 2 | 3 | 3 | 3 | 2 | 3 | 8 | 230 | 3 | 20 | 20 | 138 | 0 | 0 | 1 | 4 | 580 |
| 32 | FCF3 | 2 | 11 | 1 | 4 | 2 | 2 | 3 | 4 | 1 | 2 | 3 | 8 | 100 | 3 | 10 | 10 | 30 | 0 | 0 | 1 | 4 | 570 |
| 33 | FCF3 | 3 | 11 | 1 | 4 | 8 | 2 | 3 | 4 | 2 | 2 | 3 | 8 | 180 | 3 | 10 | 10 | 54 | 0 | 0 | 1 | 4 | 560 |
| 34 | FCF3 | 4 | 11 | 1 | 4 | 3 | 2 | 3 | 4 | 1 | 2 | 3 | 8 | 80 | 3 | 15 | 15 | 36 | 0 | 0 | 1 | 4 | 560 |
| 35 | FCF3 | 5 | 11 | 1 | 4 | 8 | 2 | 3 | 4 | 2 | 2 | 3 | 8 | 2250 | 3 | 5 | 5 | 38 | 0 | 0 | 2 | 4 | 550 |
| 36 | FCF3 | 6 | 11 | 1 | 4 | 2 | 2 | 3 | 4 | 1 | 2 | 3 | 8 | 150 | 3 | 5 | 5 | 22 | 0 | 0 | 2 | 4 | 550 |
| 37 | FCF3 | 7 | 11 | 1 | 4 | 2 | 2 | 3 | 4 | 2 | 2 | 3 | 8 | 180 | 3 | 2 | 2 | 11 | 0 | 0 | 2 | 4 | 540 |

Dorrigo Three Year MA Coverage Data

| Row | Trajectory | Component | Geol. | L/system | L/pattern | Topo. | Geom. | Soil | Veg. | Slope | L/use | Comp.frm. | DLF | Length | Width | Surf.Vis. | Arch.vis. | Eff.cover m2 | Art.occ. | Art.no. | Dis.water | Source | ASL(m) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 38 | FCF3 | 8 | 11 | 1 | 4 | 8 | 2 | 3 | 4 | 2 | 2 | 3 | 8 | 120 | 3 | 10 | 10 | 36 | 0 | 0 | 1 | 4 | 530 |
| 39 | FCF4 | 1 | 11 | 1 | 4 | 8 | 2 | 3 | 4 | 2 | 2 | 3 | 8 | 150 | 3 | 5 | 5 | 22 | 0 | 0 | 1 | 1 | 580 |
| 40 | FCF4 | 2 | 11 | 1 | 4 | 3 | 2 | 3 | 4 | 1 | 2 | 3 | 8 | 150 | 3 | 5 | 5 | 22 | 0 | 0 | 1 | 1 | 570 |
| 41 | FCF4 | 3 | 11 | 1 | 4 | 2 | 2 | 3 | 4 | 2 | 2 | 3 | 8 | 200 | 3 | 5 | 5 | 30 | 0 | 0 | 1 | 1 | 560 |
| 42 | FCF4 | 4 | 11 | 1 | 4 | 3 | 2 | 3 | 4 | 1 | 2 | 3 | 8 | 150 | 3 | 10 | 10 | 45 | 0 | 0 | 1 | 1 | 560 |
| 43 | LR1 | 1 | 11 | 1 | 4 | 2 | 2 | 3 | 4 | 1 | 3 | 8 | 8 | 50 | 30 | 90 | 40 | 600 | 0 | 0 | 1 | 1 | 575 |
| 44 | LR2 | 1 | 11 | 1 | 4 | 2 | 2 | 3 | 4 | 2 | 3 | 3 | 8 | 100 | 3 | 90 | 80 | 240 | 0 | 0 | 2 | 1 | 635 |
| 45 | LR2 | 2 | 11 | 1 | 4 | 3 | 2 | 3 | 4 | 2 | 3 | 3 | 8 | 100 | 3 | 90 | 80 | 240 | 0 | 0 | 2 | 1 | 630 |
| 46 | LR2 | 3 | 11 | 1 | 4 | 3 | 2 | 3 | 4 | 1 | 3 | 3 | 8 | 80 | 3 | 90 | 80 | 192 | 0 | 0 | 2 | 1 | 635 |
| 47 | LR2 | 4 | 11 | 1 | 4 | 3 | 2 | 3 | 4 | 2 | 3 | 3 | 8 | 200 | 3 | 90 | 80 | 480 | 0 | 0 | 1 | 1 | 635 |
| 48 | MH1 | 1 | 11 | 1 | 4 | 4 | 2 | 3 | 3 | 1 | 3 | 8 | 4 | 30 | 25 | 80 | 60 | 450 | 0 | 0 | 1 | 1 | 670 |
| 49 | MH1 | 2 | 11 | 1 | 4 | 4 | 2 | 3 | 3 | 1 | 3 | 3 | 8 | 100 | 3 | 70 | 70 | 210 | 0 | 0 | 1 | 1 | 670 |
| 50 | MH2 | 1 | 11 | 1 | 4 | 4 | 2 | 3 | 3 | 1 | 3 | 8 | 4 | 40 | 40 | 90 | 30 | 480 | 0 | 0 | 1 | 1 | 660 |
| 51 | MH3 | 1 | 11 | 1 | 8 | 16 | 2 | 3 | 3 | 2 | 2 | 3 | 8 | 80 | 5 | 80 | 60 | 240 | 1 | 32 | 1 | 4 | 520 |
| 52 | MR1 | 1 | 11 | 1 | 3 | 5 | 2 | 3 | 4 | 1 | 3 | 7 | 7 | 80 | 20 | 15 | 15 | 240 | 1 | 2 | 1 | 4 | 370 |
| 53 | MR1 | 2 | 11 | 1 | 3 | 5 | 2 | 3 | 4 | 3 | 3+4 | 7 | 7 | 150 | 15 | 10 | 10 | 225 | 1 | 2 | 2 | 4 | 390 |
| 54 | MR1 | 3 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 2 | 3+4 | 7 | 7 | 200 | 15 | 5 | 5 | 150 | 0 | 0 | 2 | 4 | 410 |
| 55 | MR1 | 4 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 1 | 3+4 | 7 | 7 | 100 | 5 | 5 | 5 | 25 | 0 | 0 | 2 | 4 | 430 |
| 56 | MR2 | 1 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 1 | 3 | 7 | 7 | 180 | 20 | 2 | 2 | 72 | 0 | 0 | 1 | 1 | 410 |
| 57 | MR2 | 2 | 11 | 1 | 3 | 8 | 2 | 3 | 4 | 2 | 3 | 7 | 7 | 30 | 30 | 10 | 10 | 90 | 1 | 1 | 1 | 1 | 390 |
| 58 | MR3 | 1 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 3 | 3 | 3 | 8 | 250 | 3.5 | 90 | 80 | 717 | 0 | 0 | 1 | 1 | 640 |
| 59 | MR3 | 2 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 1 | 3 | 3 | 8 | 70 | 3.5 | 80 | 70 | 171 | 0 | 0 | 1 | 1 | 620 |
| 60 | MR3 | 3 | 11 | 1 | 3 | 8 | 2 | 3 | 4 | 2 | 3 | 3 | 8 | 120 | 3.5 | 80 | 70 | 294 | 0 | 0 | 1 | 1 | 625 |
| 61 | MR3 | 4 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 1 | 3 | 7 | 7 | 50 | 30 | 1 | 1 | 15 | 0 | 0 | 1 | 1 | 630 |
| 62 | MR4 | 1 | 11 | 1 | 3 | 12 | 2 | 3 | 1 | 4 | 2 | 3 | 8 | 80 | 3 | 5 | 5 | 12 | 0 | 0 | 1 | 3 | 530 |
| 63 | MR4 | 2 | 11 | 1 | 3 | 11 | 2 | 3 | 3 | 3 | 2 | 3 | 8 | 80 | 3 | 10 | 10 | 24 | 0 | 0 | 1 | 3 | 540 |
| 64 | MR4 | 3 | 11 | 1 | 3 | 10 | 2 | 3 | 4 | 2 | 2 | 3 | 8 | 150 | 3 | 10 | 10 | 45 | 0 | 0 | 1 | 1 | 560 |
| 65 | MR4 | 4 | 11 | 1 | 3 | 9 | 2 | 3 | 4 | 3 | 2 | 3 | 8 | 100 | 3 | 10 | 10 | 30 | 0 | 0 | 1 | 1 | 580 |
| 66 | MR4 | 5 | 11 | 1 | 3 | 8 | 2 | 3 | 4 | 3 | 2 | 3 | 8 | 100 | 3 | 10 | 10 | 30 | 0 | 0 | 1 | 1 | 590 |
| 67 | MR4 | 6 | 11 | 1 | 3 | 7 | 2 | 3 | 4 | 3 | 2 | 3 | 8 | 150 | 3 | 10 | 10 | 45 | 0 | 0 | 1 | 1 | 600 |
| 68 | PR1 | 1 | 11 | 1 | 4 | 2 | 2 | 3 | 4 | 2 | 3+4 | 6 | 7 | 100 | 15 | 15 | 10 | 150 | 1 | 2 | 1 | 1 | 625 |
| 69 | PR1 | 2 | 11 | 1 | 4 | 1 | 2 | 3 | 4 | 1 | 3+4 | 6 | 7 | 80 | 30 | 15 | 10 | 240 | 1 | 4 | 1 | 1 | 630 |
| 70 | PR1 | 3 | 11 | 1 | 4 | 8 | 2 | 3 | 4 | 1 | 3+4 | 6 | 7 | 80 | 20 | 10 | 5 | 80 | 0 | 0 | 1 | 1 | 625 |
| 71 | PR2 | 1 | 11 | 1 | 4 | 2 | 2 | 3 | 4 | 1 | 3 | 7 | 7 | 150 | 10 | 2 | 2 | 30 | 1 | 1 | 1 | 1 | 510 |
| 72 | PR2 | 2 | 11 | 1 | 4 | 2 | 2 | 3 | 4 | 1 | 3 | 3 | 7 | 150 | 3 | 2 | 2 | 9 | 1 | 1 | 1 | 1 | 510 |
| 73 | RC1 | 1 | 11 | 1 | 4 | 2 | 2 | 4 | 9 | 1 | 2 | 2 | 8 | 180 | 2 | 1 | 1 | 4 | 0 | 0 | 2 | 3 | 585 |
| 74 | RC1 | 2 | 11 | 1 | 4 | 2 | 2 | 4 | 9 | 1 | 2 | 1 | 8 | 10 | 7 | 40 | 20 | 14 | 0 | 0 | 2 | 3 | 585 |

Dorrigo Three Year MA Coverage Data

| Row | Trajectory | Component | Geol. | L/system | L/pattern | Topo. | Geom. | Soil | Veg. | Slope | L/use | Comp.frm. | DLF | Length | Width | Surf.Vis. | Arch.vis. | Eff.cover m2 | Art.occ. | Art.no. | Dis.water | Source | ASL(m) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 75 | RC1 | 3 | 11 | 1 | 4 | 2 | 2 | 4 | 9 | 1 | 2 | 3 | 8 | 120 | 2.5 | 50 | 40 | 120 | 0 | 0 | 2 | 3 | 580 |
| 76 | RC1 | 4 | 11 | 1 | 4 | 2 | 2 | 4 | 9 | 2 | 2 | 3 | 8 | 200 | 2.5 | 50 | 40 | 200 | 0 | 0 | 2 | 3 | 580 |
| 77 | TR1 | 1 | 11 | 1 | 7 | 6 | 2 | 4 | 3 | 1 | 3 | 3 | 8 | 220 | 4 | 25 | 20 | 176 | 0 | 0 | 1 | 1 | 670 |
| 78 | TR1 | 2 | 11 | 1 | 7 | 6 | 2 | 4 | 3 | 2 | 3 | 3 | 8 | 180 | 4 | 60 | 50 | 360 | 0 | 0 | 2 | 1 | 680 |
| 79 | TR1 | 3 | 11 | 1 | 7 | 5 | 2 | 4 | 3 | 1 | 6 | 6 | 7 | 50 | 20 | 60 | 50 | 500 | 0 | 0 | 2 | 1 | 670 |
| 80 | TR1 | 4 | 11 | 1 | 7 | 5 | 2 | 4 | 3 | 1 | 6 | 6 | 8 | 80 | 3 | 90 | 70 | 168 | 0 | 0 | 2 | 1 | 680 |
| 81 | TR1 | 5 | 11 | 1 | 7 | 6 | 2 | 4 | 3 | 2 | 3 | 3 | 4 | 80 | 3 | 90 | 70 | 168 | 0 | 0 | 2 | 1 | 680 |
| 82 | TR2 | 1 | 11 | 1 | 7 | 6 | 2 | 4 | 3 | 2 | 3 | 3 | 8 | 140 | 4 | 25 | 20 | 112 | 0 | 0 | 1 | 1 | 670 |
| 83 | TR2 | 2 | 11 | 1 | 7 | 5 | 2 | 4 | 3 | 1 | 3 | 3 | 8 | 150 | 4 | 25 | 20 | 120 | 0 | 0 | 1 | 1 | 670 |
| 84 | TT1 | 1 | 8 | 1 | 4 | 2 | 2 | 3 | 3 | 1 | 2 | 2 | 8 | 200 | 5 | 2 | 2 | 20 | 1 | 1 | 2 | 2 | 510 |
| 85 | TT1 | 2 | 8 | 1 | 4 | 4 | 2 | 3 | 3 | 1 | 2 | 7 | 8 | 40 | 30 | 2 | 2 | 24 | 0 | 0 | 2 | 2 | 520 |
| 86 | TT1 | 3 | 8 | 1 | 4 | 3 | 2 | 3 | 3 | 1 | 2 | 3 | 7 | 100 | 4 | 2 | 2 | 8 | 0 | 0 | 2 | 2 | 220 |
| 87 | TT1 | 4 | 8 | 1 | 4 | 3 | 2 | 3 | 3 | 1 | 2 | 7 | 7 | 100 | 4 | 2 | 2 | 8 | 0 | 0 | 2 | 2 | 510 |
| 88 | TT1 | 5 | 8 | 1 | 4 | 4 | 2 | 3 | 3 | 1 | 2 | 7 | 7 | 60 | 25 | 2 | 2 | 30 | 0 | 0 | 2 | 2 | 510 |
| 89 | TT1 | 6 | 8 | 1 | 4 | 8 | 2 | 3 | 3 | 2 | 2 | 7 | 8 | 50 | 10 | 2 | 2 | 10 | 0 | 0 | 2 | 2 | 510 |
| 90 | TT1 | 7 | 8 | 1 | 4 | 2 | 2 | 3 | 3 | 1 | 2 | 7 | 7 | 60 | 15 | 2 | 2 | 18 | 0 | 0 | 2 | 2 | 510 |
| 91 | TT1 | 8 | 8 | 1 | 4 | 6 | 2 | 3 | 3 | 2 | 2 | 3 | 8 | 150 | 5 | 2 | 2 | 15 | 0 | 0 | 2 | 2 | 500 |
| 92 | TT2 | 1 | 8 | 1 | 4 | 1 | 2 | 3 | 3 | 1 | 2 | 3 | 8 | 180 | 3 | 2 | 2 | 11 | 0 | 0 | 2 | 1 | 530 |
| 93 | TT2 | 2 | 8 | 1 | 4 | 3 | 2 | 3 | 3 | 2 | 2 | 3 | 8 | 100 | 3 | 2 | 2 | 6 | 1 | 1 | 2 | 1 | 520 |
| 94 | TT2 | 3 | 8 | 1 | 4 | 3 | 2 | 3 | 3 | 1 | 2 | 3 | 8 | 80 | 3 | 2 | 2 | 5 | 0 | 0 | 2 | 1 | 515 |
| 95 | TT2 | 4 | 8 | 1 | 4 | 4 | 2 | 3 | 3 | 1 | 2 | 7 | 7 | 80 | 20 | 2 | 2 | 32 | 0 | 0 | 2 | 4 | 520 |
| 96 | FR1 | 1 | 12 | 1 | 3 | 2 | 2 | 4 | 4 | 1 | 1 | 11 | 7 | * | * | 2 | 2 | 20 | 1 | 17 | 1 | 1 | 650 |
| 97 | FR1 | 2 | 12 | 1 | 3 | 2 | 2 | 4 | 4 | 1 | 1 | 11 | 7 | * | * | 30 | 30 | 42 | 1 | 17 | 1 | 1 | 650 |
| 98 | FR1 | 3 | 12 | 1 | 3 | 2 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 200 | 10 | 15 | 15 | 300 | 1 | 10 | 1 | 1 | 650 |
| 99 | FR1 | 4 | 12 | 1 | 3 | 6 | 2 | 3 | 4 | 2 | 1 | 11 | 7 | 180 | 10 | 10 | 10 | 18 | 1 | 1 | 1 | 1 | 630 |
| 100 | FR1 | 5 | 12 | 1 | 3 | 14 | 1 | 4 | 4 | 1 | 1 | 10 | 8 | 120 | 5 | 25 | 25 | 150 | 0 | 0 | 1 | 1 | 630 |
| 101 | FR1 | 6 | 12 | 1 | 3 | 6 | 2 | 4 | 4 | 2 | 1 | 2 | 8 | 150 | 3 | 40 | 40 | 180 | 1 | 22 | 1 | 1 | 640 |
| 102 | FR2 | 1 | 12 | 1 | 3 | 2 | 2 | 3 | 4 | 1 | 1 | 11 | 7 | 100 | 10 | 2 | 2 | 20 | 1 | 1 | 2 | 1 | 640 |
| 103 | FR2 | 2 | 12 | 1 | 3 | 2 | 2 | 3 | 4 | 2 | 1 | 11 | 7 | 180 | 10 | 2 | 2 | 36 | 0 | 0 | 2 | 1 | 650 |
| 104 | FR2 | 3 | 12 | 1 | 3 | 4 | 2 | 3 | 4 | 1 | 1 | 11 | 7 | 80 | 60 | 5 | 5 | 240 | 0 | 0 | 2 | 1 | 670 |
| 105 | FR2 | 4 | 12 | 1 | 3 | 3 | 2 | 3 | 4 | 1 | 1 | 11 | 7 | 180 | 20 | 2 | 2 | 72 | 1 | 3 | 1 | 1 | 650 |
| 106 | FR2 | 5 | 12 | 1 | 3 | 2 | 2 | 3 | 4 | 2 | 1 | 11 | 7 | 220 | 40 | 2 | 2 | 88 | 1 | 6 | 2 | 1 | 655 |
| 107 | FR2 | 6 | 12 | 1 | 3 | 4 | 2 | 3 | 4 | 1 | 1 | 11 | 7 | 40 | 40 | 2 | 2 | 32 | 1 | 7 | 2 | 1 | 690 |
| 108 | FR2 | 7 | 12 | 1 | 3 | 6 | 2 | 3 | 4 | 3 | 1 | 11 | 7 | 300 | 10 | 5 | 5 | 150 | 0 | 0 | 2 | 1 | 645 |
| 109 | FR3 | 1 | 12 | 1 | 3 | 6 | 2 | 3 | 4 | 2 | 1 | 11 | 7 | 500 | 2.5 | 10 | 10 | 125 | 0 | 0 | 1 | 1 | 635 |
| 110 | FR3 | 2 | 12 | 1 | 3 | 8 | 2 | 3 | 4 | 4 | 1 | 11 | 7 | 70 | 2.5 | 50 | 50 | 18 | 0 | 0 | 2 | 1 | 640 |
| 111 | FR3 | 3 | 12 | 1 | 3 | 2 | 2 | 3 | 4 | 1 | 1 | 11 | 7 | 50 | 2.5 | 10 | 10 | 12 | 1 | 2 | 2 | 1 | 640 |

Dorrigo Three Year MA Coverage Data

| Row | Trajectory | Component | Geol. | L/system | L/pattern | Topo. | Geom. | Soil | Veg. | Slope | L/use | Comp.frm. | DLF | Length | Width | Surf.Vis. | Arch.vis. | Eff.cover m2 | Art.occ. | Art.no. | Dis.water | Source | ASL(m) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 112 | FR4 | 1 | 12 | 1 | 4 | 6 | 2 | 3 | 4 | 2 | 1 | 11 | 7 | 100 | 15 | 2 | 2 | 30 | 0 | 0 | 1 | 1 | 590 |
| 113 | FR4 | 2 | 12 | 1 | 4 | 14 | 1 | 4 | 4 | 1 | 1 | 11 | 7 | 40 | 15 | 5 | 2 | 12 | 0 | 0 | 1 | 1 | 580 |
| 114 | FR4 | 3 | 12 | 1 | 4 | 6 | 2 | 3 | 4 | 2 | 1 | 11 | 8 | 80 | 15 | 5 | 2 | 24 | 0 | 0 | 1 | 1 | 570 |
| 115 | FR4 | 4 | 12 | 1 | 4 | 10 | 2 | 3 | 4 | 1 | 1 | 11 | 7 | 80 | 15 | 5 | 3 | 36 | 1 | 4 | 1 | 1 | 570 |
| 116 | FR4 | 5 | 12 | 1 | 4 | 10 | 2 | 3 | 4 | 1 | 1 | 11 | 7 | 180 | 5 | 1 | 1 | 9 | 1 | 3 | 1 | 1 | 580 |
| 117 | FR4 | 6 | 12 | 1 | 4 | 10 | 2 | 3 | 4 | 1 | 1 | 2 | 8 | 180 | 10 | 15 | 8 | 144 | 0 | 0 | 1 | 1 | 580 |
| 118 | FR4 | 7 | 12 | 1 | 4 | 14 | 1 | 3 | 4 | 1 | 1 | 12 | 8 | 50 | 15 | 10 | 5 | 38 | 0 | 0 | 1 | 1 | 575 |
| 119 | FR4 | 8 | 12 | 1 | 4 | 6 | 2 | 3 | 4 | 2 | 1 | 11 | 7 | 180 | 10 | 2 | 2 | 36 | 0 | 0 | 2 | 1 | 600 |
| 120 | FR4 | 9 | 12 | 1 | 4 | 6 | 2 | 3 | 4 | 2 | 1 | 2 | 8 | 180 | 5 | 20 | 15 | 135 | 0 | 0 | 2 | 1 | 600 |
| 121 | FR4 | 10 | 12 | 1 | 4 | 2 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 280 | 20 | 5 | 5 | 280 | 1 | 16 | 2 | 1 | 605 |
| 122 | FR5 | 1 | 11 | 1 | 4 | 8 | 2 | 3 | 4 | 2 | 1+4 | 11 | 7 | 30 | 10 | 20 | 20 | 60 | 1 | 1 | 1 | 1 | 605 |
| 123 | FR5 | 2 | 11 | 1 | 4 | 7 | 2 | 3 | 4 | 3 | 1+4 | 11 | 7 | 80 | 10 | 15 | 15 | 120 | 0 | 0 | 1 | 1 | 600 |
| 124 | FR5 | 3 | 11 | 1 | 4 | 9 | 2 | 3 | 4 | 3 | 1+4 | 11 | 7 | 50 | 10 | 10 | 10 | 50 | 0 | 0 | 1 | 1 | 595 |
| 125 | FR5 | 4 | 11 | 1 | 4 | 10 | 2 | 3 | 4 | 3 | 1+4 | 11 | 7 | 50 | 10 | 2 | 2 | 10 | 0 | 0 | 1 | 1 | 590 |
| 126 | FR5 | 5 | 11 | 1 | 4 | 5 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | * | * | 3 | 3 | 69 | 1 | 11 | 1 | 1 | 580 |
| 127 | FR5 | 6 | 11 | 1 | 4 | 12 | 2 | 3 | 4 | 4 | 1 | 11 | 7 | 100 | 10 | 1 | 1 | 10 | 0 | 0 | 1 | 1 | 570 |
| 128 | FR5 | 7 | 11 | 1 | 4 | 6 | 2 | 3 | 4 | 5 | 1 | 11 | 7 | 70 | 10 | 2 | 2 | 14 | 1 | 2 | 1 | 1 | 570 |
| 129 | FR5 | 8 | 11 | 1 | 4 | 5 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 70 | 30 | 2 | 2 | 42 | 1 | 4 | 1 | 1 | 580 |
| 130 | FR5 | 9 | 11 | 1 | 4 | 6 | 2 | 3 | 4 | 5 | 1 | 11 | 7 | 40 | 10 | 5 | 5 | 20 | 0 | 0 | 1 | 1 | 575 |
| 131 | FR5 | 10 | 11 | 1 | 4 | 12 | 2 | 3 | 4 | 4 | 1 | 11 | 7 | 80 | 8 | 2 | 2 | 13 | 0 | 0 | 1 | 1 | 580 |
| 132 | FR5 | 11 | 11 | 1 | 4 | 9 | 2 | 3 | 4 | 3 | 1 | 11 | 7 | 200 | 10 | 2 | 2 | 40 | 0 | 0 | 2 | 1 | 585 |
| 133 | FR5 | 12 | 11 | 1 | 4 | 8 | 2 | 3 | 4 | 2 | 1 | 11 | 7 | 80 | 10 | 3 | 3 | 24 | 0 | 0 | 2 | 1 | 590 |
| 134 | FR5 | 13 | 11 | 1 | 4 | 4 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 50 | 40 | 5 | 5 | 100 | 1 | 6 | 2 | 1 | 600 |
| 135 | FR5 | 14 | 11 | 1 | 4 | 3 | 2 | 3 | 4 | 2 | 1 | 11 | 7 | 170 | 10 | 2 | 2 | 34 | 1 | 1 | 2 | 1 | 590 |
| 136 | FR5 | 15 | 11 | 1 | 4 | 3 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 60 | 10 | 5 | 5 | 30 | 1 | 4 | 1 | 1 | 580 |
| 137 | FR5 | 16 | 11 | 1 | 4 | 3 | 2 | 3 | 4 | 2 | 1 | 11 | 7 | 50 | 10 | 10 | 10 | 50 | 1 | 1 | 1 | 2 | 580 |
| 138 | FR5 | 17 | 11 | 1 | 4 | 4 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 80 | 10 | 10 | 10 | 80 | 1 | 4 | 1 | 2 | 580 |
| 139 | FR5 | 18 | 11 | 1 | 4 | 6 | 2 | 3 | 4 | 3 | 1 | 11 | 7 | 150 | 6 | 10 | 10 | 90 | 0 | 0 | 1 | 2 | 550 |
| 140 | FR5 | 19 | 11 | 1 | 4 | 2 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 30 | 8 | 60 | 60 | 144 | 1 | 7 | 1 | 1 | 600 |
| 141 | ST1 | 1 | 11 | 1 | 3 | 3 | 2 | 3 | 4 | 1 | 1 | 11 | 7 | 50 | 10 | 10 | 10 | 50 | 0 | 0 | 2 | 1 | 820 |
| 142 | ST1 | 2 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 3 | 1+4 | 11 | 7 | 70 | 10 | 30 | 30 | 210 | 0 | 0 | 2 | 1 | 820 |
| 143 | ST1 | 3 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 130 | 10 | 2 | 2 | 26 | 0 | 0 | 2 | 1 | 825 |
| 144 | ST1 | 4 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 40 | 25 | 20 | 20 | 200 | 1 | 1 | 2 | 1 | 825 |
| 145 | ST1 | 5 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 2 | 1+4 | 11 | 7 | 50 | 10 | 10 | 10 | 50 | 0 | 0 | 2 | 1 | 820 |
| 146 | ST1 | 6 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 200 | 10 | 5 | 5 | 100 | 1 | 1 | 2 | 1 | 820 |
| 147 | ST1 | 7 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 1 | 1 | 3 | 8 | 200 | 3 | 80 | 80 | 480 | 1 | 3 | 2 | 1 | 820 |
| 148 | ST1 | 8 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 2 | 1+4 | 3 | 8 | 50 | 3 | 70 | 70 | 105 | 0 | 0 | 2 | 1 | 820 |

## Dorrigo Three Year MA Coverage Data

| Row | Trajectory | Component | Geol. | L/system | L/pattern | Topo. | Geom. | Soil | Veg. | Slope | L/use | Comp.frm. | DLF | Length | Width | Surf.Vis. | Arch.vis. | Eff.cover m2 | Art.occ. | Art.no. | Dis.water | Source | ASL(m) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 149 | ST1 | 9 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 40 | 3 | 70 | 70 | 84 | 0 | 0 | 2 | 1 | 825 |
| 150 | ST1 | 10 | 11 | 1 | 3 | 8 | 2 | 3 | 4 | 2 | 1 | 3 | 8 | 200 | 3 | 70 | 70 | 420 | 1 | 1 | 2 | 1 | 825 |
| 151 | ST2 | 1 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 1 | 1+4 | 1 | 8 | 40 | 8 | 70 | 60 | 192 | 0 | 0 | 2 | 1 | 820 |
| 152 | ST2 | 2 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 40 | 20 | 10 | 10 | 80 | 1 | 1 | 2 | 1 | 820 |
| 153 | ST3 | 1 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 3 | 1+4 | 11 | 7 | 160 | 10 | 20 | 20 | 320 | 1 | 2 | 1 | 1 | 540 |
| 154 | ST3 | 2 | 11 | 1 | 3 | 1 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 12 | 12 | 20 | 20 | 29 | 1 | 108 | 1 | 1 | 560 |
| 155 | ST3 | 3 | 11 | 1 | 3 | 8 | 2 | 3 | 4 | 3 | 1+4 | 11 | 8 | 50 | 10 | 60 | 60 | 300 | 1 | 1 | 1 | 1 | 560 |
| 156 | ST3 | 4 | 11 | 1 | 3 | 1 | 2 | 3 | 4 | 1 | 1+4 | 11 | 8 | 45 | 30 | 15 | 15 | 202.5 | 1 | 1 | 1 | 1 | 560 |
| 157 | ST3 | 5 | 11 | 1 | 3 | 1 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 90 | 5 | 15 | 15 | 67.5 | 0 | 0 | 1 | 1 | 560 |
| 158 | ST4 | 1 | 11 | 1 | 3 | 3 | 2 | 3 | 4 | 2 | 1+4 | 3 | 8 | 25 | 2.5 | 90 | 80 | 50 | 1 | 8 | 2 | 1 | 470 |
| 159 | ST4 | 2 | 11 | 1 | 3 | 3 | 2 | 3 | 4 | 1 | 1+4 | 3 | 8 | 30 | 2.5 | 40 | 30 | 22 | 1 | 3 | 2 | 1 | 470 |
| 160 | ST4 | 3 | 11 | 1 | 3 | 3 | 2 | 3 | 4 | 2 | 1+4 | 3 | 8 | 112 | 2.5 | 40 | 30 | 84 | 1 | 62 | 2 | 1 | 470 |
| 161 | ST4 | 4 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 1 | 1 | 11 | 7 | 10 | 10 | 5 | 5 | 5 | 1 | 6 | 2 | 1 | 480 |
| 162 | ST5 | 1 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 1 | 1 | 11 | 7 | 40 | 10 | 1 | 1 | 4 | 0 | 0 | 1 | 1 | 415 |
| 163 | ST5 | 2 | 11 | 1 | 3 | 8 | 2 | 3 | 4 | 3 | 1 | 11 | 7 | 80 | 10 | 1 | 1 | 8 | 0 | 0 | 1 | 2 | 410 |
| 164 | ST5 | 3 | 11 | 1 | 3 | 3 | 2 | 3 | 4 | 2 | 1 | 3 | 8 | 40 | 2.5 | 30 | 30 | 30 | 0 | 0 | 1 | 1 | 410 |
| 165 | ST5 | 4 | 11 | 1 | 3 | 3 | 2 | 3 | 4 | 1 | 1 | 3 | 8 | 100 | 2.5 | 30 | 30 | 75 | 1 | 6 | 1 | 1 | 410 |
| 166 | ST5 | 5 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 2 | 1 | 3 | 8 | 80 | 2.5 | 20 | 10 | 20 | 1 | 4 | 2 | 1 | 415 |
| 167 | ST5 | 6 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 1 | 1 | 3 | 8 | 50 | 2.5 | 20 | 10 | 12 | 1 | 1 | 2 | 1 | 420 |
| 168 | ST5 | 7 | 11 | 1 | 3 | 7 | 2 | 3 | 4 | 3 | 1 | 3 | 8 | 80 | 2.5 | 20 | 10 | 20 | 0 | 0 | 2 | 1 | 420 |
| 169 | ST5 | 8 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 1 | 1 | 11 | 7 | 30 | 20 | 1 | 1 | 6 | 0 | 0 | 2 | 1 | 430 |
| 170 | ST5 | 9 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 2 | 1 | 3 | 8 | 70 | 2.5 | 20 | 10 | 18 | 1 | 3 | 2 | 1 | 420 |
| 171 | ST5 | 10 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 1 | 1 | 3 | 8 | 50 | 2.5 | 5 | 3 | 4 | 0 | 0 | 2 | 1 | 420 |
| 172 | ST5 | 11 | 11 | 1 | 3 | 7 | 2 | 3 | 4 | 4 | 1 | 3 | 8 | 100 | 2.5 | 20 | 20 | 50 | 0 | 0 | 2 | 1 | 430 |
| 173 | ST6 | 1 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 1 | 1 | 3 | 8 | 27 | 2.5 | 40 | 30 | 20 | 1 | 93 | 2 | 1 | 490 |
| 174 | ST7 | 1 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 1 | 1 | 11 | 7 | 20 | 10 | 1 | 1 | 2 | 0 | 0 | 2 | 1 | 610 |
| 175 | ST7 | 2 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 1 | 1 | 11 | 7 | 100 | 10 | 1 | 1 | 10 | 0 | 0 | 2 | 1 | 610 |
| 176 | ST7 | 3 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 2 | 1 | 11 | 7 | 150 | 15 | 1 | 1 | 22 | 0 | 0 | 1 | 1 | 600 |
| 177 | ST7 | 4 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 1 | 1 | 11 | 7 | 30 | 15 | 1 | 1 | 4 | 0 | 0 | 1 | 1 | 590 |
| 178 | ST7 | 5 | 11 | 1 | 3 | 8 | 2 | 3 | 4 | 2 | 1 | 11 | 7 | 100 | 10 | 1 | 1 | 10 | 0 | 0 | 2 | 1 | 600 |
| 179 | ST7 | 6 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 2 | 1 | 11 | 7 | 180 | 10 | 1 | 1 | 18 | 0 | 0 | 2 | 1 | 580 |
| 180 | ST7 | 7 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 1 | 1 | 3 | 8 | 15 | 2.5 | 30 | 20 | 7 | 1 | 2 | 1 | 1 | 580 |
| 181 | ST7 | 8 | 11 | 1 | 3 | 3 | 2 | 3 | 4 | 2 | 1 | 11 | 7 | 60 | 6 | 2 | 2 | 7 | 1 | 4 | 2 | 1 | 570 |
| 182 | ST7 | 9 | 11 | 1 | 3 | 3 | 2 | 3 | 4 | 1 | 1 | 11 | 7 | 30 | 6 | 10 | 10 | 18 | 1 | 8 | 2 | 1 | 570 |
| 183 | ST7 | 10 | 11 | 1 | 3 | 3 | 2 | 3 | 4 | 2 | 1 | 11 | 7 | 135 | 6 | 5 | 5 | 24 | 1 | 8 | 2 | 1 | 580 |
| 184 | ST7 | 11 | 11 | 1 | 3 | 8 | 2 | 3 | 4 | 2 | 1 | 11 | 7 | 10 | 10 | 3 | 3 | 3 | 1 | 5 | 2 | 1 | 570 |
| 185 | ST7 | 12 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 1 | 1 | 11 | 7 | 10 | 10 | 3 | 3 | 3 | 1 | 1 | 2 | 1 | 580 |

## Dorrigo Three Year MA Coverage Data

| Row | Trajectory | Component | Geol. | L/system | L/pattern | Topo. | Geom. | Soil | Veg. | Slope | L/use | Comp.frm. | DLF | Length | Width | Surf.Vis. | Arch.vis. | Eff.cover m2 | Art.occ. | Art.no. | Dis.water | Source | ASL(m) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 186 | ST7 | 13 | 11 | 1 | 3 | 7 | 2 | 3 | 4 | 4 | 1 | 11 | 7 | 80 | 5 | 3 | 3 | 12 | 0 | 0 | 2 | 1 | 560 |
| 187 | RH1 | 1 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 140 | 9 | 5 | 3 | 38 | 0 | 0 | 2 | 1 | 930 |
| 188 | RH1 | 2 | 11 | 1 | 3 | 8 | 2 | 3 | 4 | 2 | 1+4 | 11 | 7 | 120 | 9 | 5 | 5 | 54 | 0 | 0 | 2 | 1 | 925 |
| 189 | RH1 | 3 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 100 | 30 | 3 | 3 | 90 | 1 | 25 | 2 | 1 | 930 |
| 190 | RH2 | 1 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 90 | 20 | 3 | 3 | 54 | 0 | 0 | 2 | 1 | 850 |
| 191 | RH2 | 2 | 11 | 1 | 3 | 7 | 2 | 3 | 4 | 4 | 1+4 | 11 | 7 | 80 | 20 | 5 | 5 | 80 | 0 | 0 | 2 | 1 | 840 |
| 192 | RH3 | 1 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 250 | 15 | 3 | 3 | 112 | 0 | 0 | 2 | 1 | 820 |
| 193 | RH3 | 2 | 11 | 1 | 3 | 3 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 180 | 15 | 3 | 3 | 81 | 0 | 0 | 1 | 1 | 800 |
| 194 | RH3 | 3 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 2 | 1+4 | 11 | 7 | 70 | 15 | 3 | 3 | 32 | 0 | 0 | 2 | 1 | 810 |
| 195 | RH3 | 4 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 3 | 1+4 | 11 | 7 | 100 | 15 | 10 | 10 | 150 | 0 | 0 | 2 | 1 | 820 |
| 196 | RH3 | 5 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 2 | 1+4 | 11 | 7 | 90 | 15 | 5 | 5 | 68 | 0 | 0 | 3 | 1 | 820 |
| 197 | RH3 | 6 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 90 | 15 | 3 | 3 | 40 | 0 | 0 | 3 | 1 | 830 |
| 198 | RH3 | 7 | 11 | 1 | 3 | 3 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 120 | 15 | 3 | 3 | 54 | 0 | 0 | 3 | 1 | 800 |
| 199 | RH3 | 8 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 50 | 15 | 3 | 3 | 22 | 0 | 0 | 2 | 1 | 800 |
| 200 | RH3 | 9 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 2 | 1+4 | 11 | 7 | 300 | 15 | 3 | 3 | 140 | 0 | 0 | 2 | 1 | 800 |
| 201 | RH3 | 10 | 11 | 1 | 3 | 14 | 0 | 3 | 4 | 1 | 1+4 | 11 | 7 | * | * | 5 | 5 | 232 | 0 | 0 | 1 | 1 | 770 |
| 202 | RH3 | 11 | 11 | 1 | 3 | 6 | 2 | 3 | 4 | 4 | 1+4 | 11 | 7 | 100 | 15 | 10 | 10 | 150 | 0 | 0 | 1 | 1 | 780 |
| 203 | RH3 | 12 | 11 | 1 | 3 | 6 | 2 | 3 | 4 | 3 | 1+4 | 11 | 7 | 70 | 15 | 10 | 10 | 105 | 0 | 0 | 1 | 1 | 790 |
| 204 | RH3 | 13 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 2 | 1+4 | 11 | 7 | 30 | 15 | 10 | 10 | 45 | 0 | 0 | 1 | 1 | 800 |
| 205 | RH3 | 14 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 30 | 15 | 10 | 10 | 45 | 0 | 0 | 2 | 1 | 800 |
| 206 | RH3 | 15 | 11 | 1 | 3 | 3 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 40 | 15 | 10 | 10 | 60 | 0 | 0 | 2 | 1 | 790 |
| 207 | RH3 | 16 | 11 | 1 | 3 | 3 | 2 | 3 | 4 | 2 | 1+4 | 11 | 7 | 80 | 15 | 10 | 10 | 120 | 0 | 0 | 2 | 1 | 790 |
| 208 | RH3 | 17 | 11 | 1 | 3 | 7 | 2 | 3 | 4 | 3 | 1+4 | 11 | 7 | 80 | 15 | 10 | 10 | 120 | 0 | 0 | 2 | 1 | 800 |
| 209 | RH3 | 18 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 30 | 15 | 15 | 15 | 68 | 0 | 0 | 2 | 1 | 810 |
| 210 | RH3 | 19 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 80 | 10 | 10 | 10 | 80 | 0 | 0 | 3 | 1 | 810 |
| 211 | RH3 | 20 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 3 | 1+4 | 11 | 7 | 80 | 15 | 5 | 5 | 60 | 0 | 0 | 3 | 1 | 800 |
| 212 | RH3 | 21 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 1 | 1+4 | 3 | 8 | 250 | 3 | 10 | 10 | 75 | 0 | 0 | 2 | 1 | 820 |
| 213 | RH3 | 22 | 11 | 1 | 3 | 3 | 2 | 3 | 4 | 1 | 1+4 | 3 | 8 | 180 | 3 | 20 | 20 | 108 | 0 | 0 | 1 | 1 | 800 |
| 214 | RH3 | 23 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 2 | 1+4 | 3 | 8 | 70 | 3 | 30 | 30 | 63 | 0 | 0 | 2 | 1 | 810 |
| 215 | RH3 | 24 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 3 | 1+4 | 3 | 8 | 100 | 3 | 30 | 30 | 90 | 0 | 0 | 2 | 1 | 820 |
| 216 | RH3 | 25 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 2 | 1+4 | 3 | 8 | 90 | 3 | 30 | 30 | 81 | 0 | 0 | 3 | 1 | 820 |
| 217 | RH3 | 26 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 1 | 1+4 | 3 | 8 | 90 | 3 | 40 | 40 | 108 | 0 | 0 | 3 | 1 | 830 |
| 218 | RH4 | 1 | 11 | 1 | 3 | 5 | 2 | 3 | 4 | 2 | 1 | 2 | 4 | 3.5 | 2.5 | 90 | 70 | 6 | 1 | 19 | 1 | 4 | 250 |
| 219 | RH4 | 2 | 11 | 1 | 3 | 5 | 2 | 3 | 4 | 2 | 1 | 2 | 8 | 33 | 2.5 | 30 | 30 | 25 | 1 | 100 | 1 | 4 | 250 |
| 220 | RH4 | 3 | 11 | 1 | 3 | 5 | 2 | 3 | 4 | 1 | 5 | 11 | 7 | 60 | 10 | 1 | 1 | 6 | 0 | 0 | 1 | 4 | 260 |
| 221 | RH4 | 4 | 11 | 1 | 3 | 5 | 2 | 3 | 4 | 1 | 5 | 2 | 8 | 5 | 5 | 70 | 70 | 18 | 1 | 28 | 1 | 4 | 265 |
| 222 | RH4 | 5 | 11 | 1 | 3 | 7 | 2 | 3 | 4 | 3 | 1 | 11 | 7 | 10 | 10 | 60 | 60 | 60 | 1 | 1 | 1 | 4 | 260 |

# Dorrigo Three Year MA Coverage Data

| Row | Trajectory | Component | Geol. | L/system | L/pattern | Topo. | Geom. | Soil | Veg. | Slope | L/use | Comp.frm. | DLF | Length | Width | Surf.Vis. | Arch.vis. | Eff.cover m2 | Art.occ. | Art.no. | Dis.water | Source | ASL(m) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 223 | RH4 | 6 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 2 | 1 | 2 | 8 | 60 | 2.5 | 20 | 20 | 30 | 1 | 80 | 1 | 4 | 265 |
| 224 | RH4 | 7 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 3 | 1 | 2 | 8 | 66 | 2.5 | 20 | 20 | 33 | 1 | 4 | 1 | 4 | 270 |
| 225 | RH4 | 8 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 1 | 1 | 2 | 8 | 25 | 2.5 | 10 | 10 | 6 | 0 | 0 | 2 | 4 | 270 |
| 226 | RH4 | 9 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 2 | 1 | 2 | 8 | 30 | 2.5 | 10 | 10 | 8 | 0 | 0 | 2 | 4 | 270 |
| 227 | RH4 | 10 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 3 | 1 | 2 | 8 | 30 | 2.5 | 10 | 10 | 8 | 0 | 0 | 1 | 4 | 280 |
| 228 | RH4 | 11 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 3 | 1 | 11 | 8 | 17 | 10 | 70 | 70 | 119 | 1 | 7 | 1 | 4 | 280 |
| 229 | RH4 | 12 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 2 | 1+4 | 2 | 8 | 40 | 2.5 | 10 | 10 | 10 | 1 | 1 | 2 | 4 | 285 |
| 230 | RH4 | 13 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 5 | 1+4 | 11 | 7 | 270 | 2.5 | 30 | 20 | 135 | 1 | 1 | 2 | 4 | 320 |
| 231 | RH4 | 14 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 2 | 1+4 | 11 | 8 | 25 | 3 | 5 | 5 | 4 | 0 | 0 | 2 | 1 | 330 |
| 232 | RH4 | 15 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 135 | 10 | 1 | 1 | 14 | 0 | 0 | 2 | 1 | 330 |
| 233 | RH4 | 16 | 11 | 1 | 3 | 3 | 2 | 3 | 4 | 4 | 1+4 | 11 | 7 | 100 | 6 | 2 | 2 | 12 | 0 | 0 | 2 | 1 | 320 |
| 234 | RH4 | 17 | 11 | 1 | 3 | 3 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 30 | 6 | 2 | 2 | 4 | 0 | 0 | 2 | 1 | 320 |
| 235 | RH4 | 18 | 11 | 1 | 3 | 3 | 2 | 3 | 4 | 4 | 1+4 | 11 | 7 | 160 | 6 | 10 | 10 | 96 | 1 | 1 | 2 | 1 | 325 |
| 236 | RH4 | 19 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 2 | 1+4 | 11 | 7 | 240 | 3 | 5 | 5 | 36 | 0 | 0 | 2 | 1 | 340 |
| 237 | RH4 | 20 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 2 | 1+4 | 2 | 8 | 240 | 3 | 15 | 15 | 108 | 1 | 1 | 2 | 1 | 340 |
| 238 | RH5 | 1 | 11 | 1 | 3 | 3 | 2 | 3 | 4 | 1 | 1 | 11 | 7 | 25 | 15 | 3 | 3 | 11 | 0 | 0 | 1 | 1 | 660 |
| 239 | RH5 | 2 | 11 | 1 | 3 | 3 | 2 | 3 | 4 | 2 | 1 | 11 | 7 | 50 | 15 | 5 | 5 | 38 | 0 | 0 | 1 | 1 | 660 |
| 240 | RH5 | 3 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 1 | 1 | 11 | 7 | 70 | 15 | 5 | 5 | 52 | 0 | 0 | 2 | 1 | 650 |
| 241 | RH6 | 1 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 2 | 1+4 | 11 | 8 | 165 | 10 | 20 | 20 | 330 | 1 | 7 | 2 | 1 | 520 |
| 242 | RH6 | 2 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 1 | 1+4 | 2 | 8 | 140 | 10 | 10 | 10 | 140 | 1 | 14 | 1 | 1 | 520 |
| 243 | RH6 | 3 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 2 | 1+4 | 2 | 8 | 160 | 10 | 15 | 15 | 240 | 1 | 68 | 2 | 1 | 520 |
| 244 | RH6 | 4 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 1 | 1+4 | 11 | 8 | * | * | 90 | 90 | 20 | 1 | 34 | 2 | 1 | 500 |
| 245 | RH7 | 1 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 2 | 1+4 | 11 | 7 | 20 | 10 | 20 | 20 | 40 | 1 | 5 | 1 | 1 | 470 |
| 246 | RH8 | 1 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 2 | 1+4 | 2 | 8 | 45 | 3 | 3 | 3 | 4 | 1 | 2 | 2 | 1 | 800 |
| 247 | RH8 | 2 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 1 | 1+4 | 2 | 8 | 30 | 15 | 2 | 2 | 9 | 1 | 1 | 2 | 1 | 800 |
| 248 | RH8 | 3 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 50 | 20 | 3 | 3 | 30 | 0 | 0 | 3 | 1 | 770 |
| 249 | RH8 | 4 | 11 | 1 | 3 | 3 | 2 | 3 | 4 | 2 | 1+4 | 11 | 7 | 70 | 10 | 3 | 3 | 21 | 0 | 0 | 3 | 1 | 765 |
| 250 | RH8 | 5 | 11 | 1 | 3 | 3 | 0 | 3 | 4 | 1 | 1+4 | 11 | 7 | 30 | 10 | 20 | 20 | 60 | 1 | 6 | 2 | 1 | 760 |
| 251 | RH8 | 6 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 3 | 1+4 | 11 | 7 | 150 | 10 | 3 | 3 | 45 | 0 | 0 | 1 | 1 | 765 |
| 252 | RH8 | 7 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 80 | 10 | 3 | 3 | 24 | 0 | 0 | 1 | 1 | 770 |
| 253 | RH8 | 8 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 3 | 1+4 | 11 | 7 | 30 | 10 | 3 | 3 | 9 | 0 | 0 | 1 | 1 | 770 |
| 254 | RH8 | 9 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 100 | 10 | 3 | 3 | 30 | 0 | 0 | 1 | 1 | 780 |
| 255 | RH8 | 10 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 3 | 1+4 | 11 | 7 | 70 | 10 | 3 | 3 | 21 | 0 | 0 | 2 | 1 | 790 |
| 256 | RH8 | 11 | 11 | 1 | 3 | 4 | 2 | 3 | 4 | 1 | 1+4 | 11 | 7 | 80 | 10 | 3 | 3 | 24 | 0 | 0 | 2 | 1 | 800 |
| 257 | RH8 | 12 | 11 | 1 | 3 | 2 | 2 | 3 | 4 | 2 | 1+4 | 11 | 7 | 200 | 10 | 3 | 3 | 60 | 1 | 1 | 2 | 1 | 800 |
| 258 | RH9 | 1 | 11 | 1 | 3 | 14 | 0 | 3 | 4 | 1 | 1+4 | 11 | 7 | 200 | 30 | 3 | 3 | 180 | 0 | 0 | 1 | 1 | 750 |

## APPENDIX 10: Artefact Scatter Database

LEGEND:

| | |
|---|---|
| Column 2: | Site name: Trajectory name and site number. Initials used elsewhere. |
| Column 3: | Grid reference: AMG grid reference from 1: 25 000 topographic maps. |
| Column 4: | SF/Tenure: name of State Forest in which site located. |
| Column 5: | Geol.: Geological formation. 11 = Brooklana, 12 = Coramba, 8 = granite. |
| Column 6: | L/form: Landform pattern. 3 = Low Hills, 4 = Hills, 8 = Escarpment. |
| Column 7: | Topo: Topographic unit. Refer to Trajectory recording form, Appendix 7. |
| Column 8: | Veg. Vegetation. 3 = wet sclerophyll, 4 = dry sclerophyll. |
| Column 9: | Slope: 1 = 0-2°, 2 = >2-5°, 3 = >5-10°, 4 = >10-20°, 5 = >20-30°. |
| Column 10: | L/Use: Land use. Post-contact use of area. 1 = native vegetation, 2 = selectively logged, 3 = fully logged, 4 = recently burnt, 5 = pasture. |
| Column 11: | Comp.Frm: Component Form. Type and surface characteristics of component surveyed. 2 = unformed track, 3 = formed track, 6 = logging coupe, 7 = regenerating coupe, 10 = animal track/camp, 11 = natural. |
| Column 12: | Sample length. Maximum linear dimension of artefact occurrence recorded within a Component (measured in metres). |
| Column 13: | Sample width. Width of artefact occurrence recorded within a Component (measured in metres). |
| Column 14: | Sample area. Effective site sample = sample length x sample width x percentage of archaeological visibility. (Measured in square metres). |
| Column 15: | Art.no.: Artefact number. Number of artefacts recorded in site. |
| Column 16: | Art.dens.: Artefact density. Number of artefacts per 100 square metres of effective sample. |
| Column 17: | Site length: Estimated maximum linear dimension of artefact occurrence, regardless of Component size (measured in metres). |
| Column 18: | Site width: Width of artefact occurrence regardless of Component boundaries (measured in metres). |
| Column 19: | Site area: Site length x site width. (Measured in metres squared). |
| Column 20: | Dis.water: Distance to nearest water source marked on 1:25 000 maps. 1 = 0 - 200m, 2 = 201 - 400m. |
| Column 21: | Source: Stream order of water source. 1 = first order, 2 = second order, 3 = third order, 4 = fourth order. |
| Column 22: | ASL(m): Altitude measured in metres above-sea-level. |
| Column 23: | Ridge: Local ridge system category. 1 = locally dominant ridge, 2 = subsidiary ridge, 3 = dominant spur, 4 = absence of dominant ridges/spur. |
| Column 24: | Class: Class size of number of artefacts. 1 = 0-4 artefacts, 2 = 5-20 artefacts, 3 = 21-50 artefacts, 4 = 51-100 artefacts, 5 = >100 artefacts. |

# Dorrigo Three Year Management Area Artefact Scatter Database

| Row | Site name | Grid ref. | SF/Tenure | Geol. | L/form | Topo. | Veg. | Slope | L/use | Comp.frm | Sample length | Sample width | Sample area | Art.no. | Art.dens. | site length | site width | site area | Dis.water | Source | ASL(m) | Ridge | Class |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Western Firetrail 1/1 | 452800:6669050 | Ellis | 11 | 3 | 1 | 4 | 1 | 3+4 | 7 | • | • | • | 1 | • | • | • | • | 2 | 1 | 940 | 1 | 1 |
| 2 | Edwards Plain 1/1 | 472900:6663800 | Wild Cattle Creek | 11 | 4 | 2 | 4 | 2 | 3 | 3 | • | • | • | 1 | • | • | • | • | 1 | 1 | 700 | 1 | 1 |
| 3 | Measuring Hut 3/1 | 480050:6661850 | Wild Cattle Creek | 11 | 8 | 16 | 3 | 2 | 2 | 3 | 60 | 5 | 180 | 32 | 17.8 | 60 | 20 | 1200 | 1 | 4 | 520 | 4 | 3 |
| 4 | Mills Road 1/1 | 470050:6659850 | Moonpar | 11 | 3 | 5 | 4 | 1+3 | 3 | 7 | 90 | 15 | 202 | 4 | 2 | 90 | 15 | 1350 | 1 | 4 | 370 | 3 | 1 |
| 5 | Mills Road 2/1 | 469350:6659950 | Moonpar | 11 | 3 | 8 | 4 | 2 | 3 | 7 | • | • | • | 1 | • | • | • | • | 1 | 1 | 390 | 2 | 1 |
| 6 | Pine Road 1/1 | 478500:6663600 | Wild Cattle Creek | 11 | 4 | 2 | 4 | 1+2 | 3+4 | 6 | 130 | 20 | 260 | 6 | 2.3 | 130 | 20 | 2600 | 1 | 1 | 625 | 1 | 2 |
| 7 | Pine Road 2/1 | 480600:6666800 | Wild Cattle Creek | 11 | 4 | 2 | 4 | 1 | 3 | 3+7 | 50 | 5 | 5 | 2 | 40 | 50 | 5 | 250 | 1 | 1 | 510 | 1 | 1 |
| 8 | Teak Tree 1/1 | 473650:6668350 | Wild Cattle Creek | 8 | 4 | 2 | 3 | 1 | 2 | 2 | • | • | • | 1 | • | • | • | • | 2 | 2 | 510 | 3 | 1 |
| 9 | Teak Tree 2/1 | 473350:6669050 | Wild Cattle Creek | 8 | 4 | 3 | 3 | 2 | 2 | 3 | • | • | • | 1 | • | • | • | • | 2 | 1 | 520 | 3 | 1 |
| 10 | Frenchmans Ridge 1/1 | 450100:6685900 | Chaelundi | 12 | 3 | 2+6 | 4 | 1+2 | 1+4 | 11+2 | • | • | 506 | 67 | 13.2 | 550 | 15 | 8250 | 1 | 1 | 650 | 2 | 4 |
| 11 | Frenchmans Ridge 1/2 | 450400:6686150 | Chaelundi | 12 | 3 | 6 | 4 | 2 | 1 | 11 | • | • | • | 1 | • | • | • | • | 1 | 1 | 630 | 2 | 1 |
| 12 | Frenchmans Ridge 2/1 | 449650:6686200 | Chaelundi | 12 | 3 | 2+3 | 4 | 1+2 | 1 | 11 | 258 | 20 | 103 | 9 | 8.7 | 258 | 20 | 5160 | 2 | 1 | 650 | 2 | 2 |
| 13 | Frenchmans Ridge 2/2 | 449400:6686100 | Chaelundi | 12 | 3 | 4 | 4 | 1 | 1 | 11 | 30 | 8 | 5 | 7 | 140 | 140 | 80 | 11200 | 2 | 1 | 690 | 2 | 2 |
| 14 | Frenchmans Ridge 3/1 | 450150:6686500 | Chaelundi | 12 | 3 | 2 | 4 | 1 | 1 | 11 | 50 | 2.5 | 12 | 2 | 16.7 | 50 | 2.5 | 125 | 2 | 1 | 640 | 2 | 1 |
| 15 | Frenchmans Ridge 4/1 | 450800:6687650 | Chaelundi | 12 | 4 | 10 | 4 | 1 | 1 | 2+11 | 180 | 50 | 180 | 7 | 3.9 | 180 | 50 | 9000 | 1 | 1 | 570 | 4 | 2 |
| 16 | Frenchmans Ridge 4/2 | 451100:6687500 | Chaelundi | 12 | 4 | 2 | 4 | 1 | 1+4 | 11 | 220 | 20 | 220 | 16 | 7.3 | 220 | 20 | 4400 | 2 | 1 | 605 | 2 | 2 |
| 17 | Frenchmans Ridge 5/1 | 449750:6685100 | Chaelundi | 11 | 4 | 5 | 4 | 1 | 1+4 | 11 | 40 | 15 | 18 | 11 | 61 | 40 | 15 | 600 | 1 | 1 | 580 | 1 | 2 |
| 18 | Frenchmans Ridge 5/2 | 449900:6685000 | Chaelundi | 11 | 4 | 5+6 | 4 | 1+5 | 1+4 | 11 | 65 | 50 | 65 | 6 | 9.2 | 65 | 50 | 3250 | 1 | 1 | 580 | 1 | 2 |
| 19 | Frenchmans Ridge 5/3 | 450300:6684850 | Chaelundi | 11 | 4 | 4 | 4 | 1 | 1+4 | 11 | 30 | 25 | 38 | 6 | 15.8 | 30 | 25 | 750 | 2 | 1 | 600 | 1 | 2 |
| 20 | Frenchmans Ridge 5/4 | 450250:6684900 | Chaelundi | 11 | 4 | 3+4 | 4 | 1+2 | 1+4 | 10+11 | 185 | 10 | 92 | 10 | 10.9 | 185 | 10 | 1850 | 1 | 2 | 580 | 1 | 2 |
| 21 | Frenchmans Ridge 5/5 | 449550:6685150 | Chaelundi | 11 | 4 | 2+8 | 4 | 1+2 | 1+4 | 11 | 20 | 20 | 240 | 8 | 3.3 | 20 | 20 | 400 | 1 | 1 | 605 | 1 | 2 |
| 22 | Red Herring 1/1 | 450850:6678500 | Chaelundi | 11 | 3 | 4 | 4 | 1 | 1+4 | 11 | 50 | 10 | 15 | 26 | 173 | 80 | 60 | 1400 | 2 | 1 | 930 | 1 | 3 |
| 23 | Red Herring 4/1 | 455300:6684900 | Chaelundi | 11 | 3 | 5 | 4 | 2 | 1 | 2 | 36.5 | 2.5 | 33 | 119 | 357 | 180 | 80 | 14400 | 1 | 4 | 250 | 1 | 5 |
| 24 | Red Herring 4/2 | 455300:6684800 | Chaelundi | 11 | 3 | 2+5+7 | 4 | 1 to 5 | 1+5 | 2+11 | 570 | 3 | 337 | 122 | 36.2 | 570 | 50 | 28500 | 1 | 4 | 300 | 1 | 5 |
| 25 | Red Herring 4/3 | 454900:6684000 | Chaelundi | 11 | 3 | 3 | 4 | 4 | 1+4 | 11 | • | • | • | 1 | • | • | • | • | 2 | 1 | 325 | 1 | 1 |
| 26 | Red Herring 4/4 | 454900:6683800 | Chaelundi | 11 | 3 | 2 | 4 | 2 | 1+4 | 2 | • | • | • | 1 | • | • | • | • | 2 | 1 | 340 | 1 | 1 |
| 27 | Red Herring 6/1 | 454000:6682500 | Chaelundi | 11 | 3 | 2 | 4 | 1+2 | 1+4 | 2+11 | 430 | 10 | 740 | 123 | 16.6 | 900 | 20 | 18000 | 2 | 1 | 520 | 1 | 5 |
| 28 | Red Herring 7/1 | 454650:6683450 | Chaelundi | 11 | 3 | 2 | 4 | 2 | 1+4 | 11 | 20 | 10 | 40 | 5 | 12.5 | 100 | 30 | 3000 | 1 | 1 | 470 | 3 | 2 |
| 29 | Red Herring 8/1 | 454300:6680700 | Chaelundi | 11 | 3 | 2+4 | 4 | 1+2 | 1+4 | 2+11 | 105 | 5 | 16 | 4 | 25 | 105 | 5 | 525 | 2 | 1 | 800 | 1 | 1 |
| 30 | Red Herring 8/2 | 455100:6680500 | Chaelundi | 11 | 3 | 3 | 4 | 1 | 1+4 | 11 | 8 | 5 | 16 | 6 | 37.5 | 8 | 5 | 40 | 2 | 1 | 760 | 2 | 2 |
| 31 | Stockyard 1/1 | 450300:6683200 | Chaelundi | 11 | 3 | 4+8 | 4 | 1+2 | 1+4 | 3+11 | 70 | 5 | 157 | 2 | 1.3 | 70 | 5 | 350 | 2 | 1 | 825 | 1 | 1 |
| 32 | Stockyard 1/2 | 450550:6683150 | Chaelundi | 11 | 3 | 2 | 4 | 1 | 1+4 | 11 | • | • | • | 1 | • | • | • | • | 2 | 1 | 820 | 1 | 1 |
| 33 | Stockyard 1/3 | 450800:6683100 | Chaelundi | 11 | 3 | 2 | 4 | 1 | 1+4 | 3+11 | 205 | 10 | 1330 | 4 | 0.3 | 205 | 10 | 2050 | 2 | 1 | 820 | 1 | 1 |
| 34 | Stockyard 3/1 | 452600:6684500 | Chaelundi | 11 | 3 | 1+2+8 | 4 | 1+3 | 1+4 | 11 | • | • | 769 | 112 | 14.6 | • | • | 7375 | 1 | 1 | 560 | 1 | 5 |
| 35 | Stockyard 4/1 | 453000:6684850 | Chaelundi | 11 | 3 | 3+4 | 4 | 1+2 | 1+4 | 3+11 | • | • | 488 | 79 | 16.2 | 220 | 30 | 6600 | 2 | 1 | 470 | 1 | 4 |
| 36 | Stockyard 5/1 | 454500:6686400 | Chaelundi | 11 | 3 | 2+3 | 4 | 1+2 | 1 | 3 | 100 | 2.5 | 50 | 10 | 20 | 100 | 2.5 | 250 | 1 | 1 | 410 | 1 | 2 |
| 37 | Stockyard 5/2 | 454450:6686350 | Chaelundi | 11 | 3 | 2 | 4 | 2 | 1 | 3 | 2 | 2 | 1 | 3 | 300 | 2 | 2 | 4 | 2 | 1 | 420 | 1 | 1 |
| 38 | Stockyard 6/1 | 453650:6684950 | Chaelundi | 11 | 3 | 2 | 4 | 1 | 1 | 3 | 27 | 2.5 | 20 | 93 | 465 | 200 | 20 | 4000 | 2 | 1 | 490 | 1 | 4 |
| 39 | Stockyard 7/1 | 453650:6685750 | Chaelundi | 11 | 3 | 4 | 4 | 1 | 1 | 3 | 3 | 2.5 | 2 | 2 | 100 | 3 | 2.5 | 8 | 1 | 1 | 580 | 1 | 1 |
| 40 | Stockyard 7/2 | 454000:6685900 | Chaelundi | 11 | 3 | 3+8 | 4 | 1+2 | 1 | 11 | • | • | 51 | 26 | 51 | 200 | 25 | 5000 | 2 | 1 | 580 | 1 | 3 |

## APPENDIX 11: Artefact Database

LEGEND:

Artefact Type:

1 = flake
2 = broken flake
3 = flaked piece
4 = blade
5 = broken blade
6 = core
7 = blade core
8 = broken core
9 = broken blade core
10 = ground hatchet
11 = hammerstone
12 = anvil
13 = manuport
14 = backed blade
15 = chip
16 = utilised unmodified piece
17 = retouched flake/blade
18 = utlised flake/blade/flaked piece
19 = chopper/pebble chopper
20 = broken pebble
21 = bipolar core
22 = thumbnail scraper
23 = point

Raw Material Type:

1 = metasediments
2 = quartz
3 = crystal quartz
4 = sandstone
5 = chert
6 = acid volcanic
7 = granite
8 = chalcedony

Cortex:

0 = 100%
1 = 100 - 75%
2 = 75 - 50%
3 = <50%
4 = 0%

Cortex Type:

1 = pebble
2 = terrestrial

Artefact Length x Width x Thickness:

All measurements in millimetres.

## Dorrigo Three Year Management Area Artefact Database

| Row | Site name | Art. no. | Art. type | Raw material | length | width | thickness | cortex | cortex type |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Western Firetrail 1/1 | 1 | 2 | 2 | 17 | 10 | 3 | 4 | |
| 2 | Edwards Plain 1/1 | 1 | 3 | 1 | 27 | 17 | 12 | | |
| 3 | Measuring Hut 3/1 | 1 | 1 | 4 | 20 | 17 | 3 | 4 | |
| 4 | Measuring Hut 3/1 | 2 | 2 | 1 | 16 | 18 | 3 | 3 | 2 |
| 5 | Measuring Hut 3/1 | 3 | 7 | 1 | 52 | 32 | 23 | 3 | 2 |
| 6 | Measuring Hut 3/1 | 4 | 2 | 1 | 23 | 13 | 6 | 4 | |
| 7 | Measuring Hut 3/1 | 5 | 8 | 1 | 36 | 26 | 11 | 3 | 2 |
| 8 | Measuring Hut 3/1 | 6 | 1 | 1 | 22 | 20 | 10 | 3 | 2 |
| 9 | Measuring Hut 3/1 | 7 | 4 | 1 | 17 | 8 | 4 | 4 | |
| 10 | Measuring Hut 3/1 | 8 | 1 | 1 | 23 | 40 | 9 | 4 | |
| 11 | Measuring Hut 3/1 | 9 | 1 | 1 | 42 | 25 | 7 | 4 | |
| 12 | Measuring Hut 3/1 | 10 | 3 | 1 | 43 | 20 | 12 | 3 | 2 |
| 13 | Measuring Hut 3/1 | 11 | 2 | 1 | 13 | 18 | 6 | 4 | |
| 14 | Measuring Hut 3/1 | 12 | 1 | 1 | 37 | 30 | 11 | 3 | 2 |
| 15 | Measuring Hut 3/1 | 13 | 1 | 1 | 35 | 24 | 9 | 5 | 2 |
| 16 | Measuring Hut 3/1 | 14 | 2 | 1 | 19 | 17 | 6 | 4 | |
| 17 | Measuring Hut 3/1 | 15 | 3 | 1 | 36 | 22 | 21 | 4 | |
| 18 | Measuring Hut 3/1 | 16 | 1 | 1 | 13 | 14 | 4 | 4 | |
| 19 | Measuring Hut 3/1 | 17 | 1 | 1 | 16 | 32 | 7 | 3 | 2 |
| 20 | Measuring Hut 3/1 | 18 | 2 | 1 | 20 | 17 | 4 | 4 | |
| 21 | Measuring Hut 3/1 | 19 | 1 | 1 | 28 | 18 | 7 | 4 | |
| 22 | Measuring Hut 3/1 | 20 | 2 | 1 | 32 | 45 | 12 | 3 | 2 |
| 23 | Measuring Hut 3/1 | 21 | 1 | 1 | 25 | 14 | 3 | 4 | |
| 24 | Measuring Hut 3/1 | 22 | 3 | 1 | 30 | 15 | 4 | 4 | |
| 25 | Measuring Hut 3/1 | 23 | 1 | 1 | 42 | 28 | 20 | 3 | 2 |
| 26 | Measuring Hut 3/1 | 24 | 1 | 1 | 32 | 23 | 7 | 3 | 2 |
| 27 | Measuring Hut 3/1 | 25 | 3 | 1 | 22 | 17 | 7 | | |
| 28 | Measuring Hut 3/1 | 26 | 1 | 1 | 19 | 29 | 8 | 3 | 2 |
| 29 | Measuring Hut 3/1 | 27 | 1 | 1 | 25 | 33 | 7 | 3 | 2 |
| 30 | Measuring Hut 3/1 | 28 | 1 | 1 | 12 | 19 | 5 | 4 | |
| 31 | Measuring Hut 3/1 | 29 | 3 | 1 | 43 | 30 | 15 | 3 | 2 |
| 32 | Measuring Hut 3/1 | 30 | 3 | 1 | 22 | 16 | 11 | 4 | |
| 33 | Measuring Hut 3/1 | 31 | 6 | 1 | 45 | 42 | 23 | 3 | 2 |
| 34 | Measuring Hut 3/1 | 32 | 1 | 1 | 32 | 23 | 10 | 3 | 2 |
| 35 | Mills Road 1/1 | 1 | 6 | 1 | 105 | 80 | 40 | 3 | 2 |
| 36 | Mills Road 1/1 | 2 | 1 | 1 | 48 | 29 | 10 | 3 | 2 |
| 37 | Mills Road 1/1 | 3 | 1 | 1 | 25 | 17 | 7 | 4 | |
| 38 | Mills Road 1/1 | 4 | 6 | 2 | 33 | 26 | 12 | 4 | |
| 39 | Mills Road 2/1 | 1 | 1 | 1 | 30 | 23 | 4 | 4 | |
| 40 | Pine Road 1/1 | 1 | 1 | 2 | 22 | 12 | 4 | 3 | 2 |
| 41 | Pine Road 1/1 | 2 | 2 | 1 | 22 | 20 | 6 | 4 | |
| 42 | Pine Road 1/1 | 3 | 2 | 1 | 22 | 18 | 5 | 3 | 2 |
| 43 | Pine Road 1/1 | 4 | 19 | 1 | 80 | 65 | 22 | 2 | 1 |
| 44 | Pine Road 1/1 | 5 | 3 | 1 | 35 | 28 | 12 | 3 | 2 |
| 45 | Pine Road 1/1 | 6 | 2 | 1 | 10 | 17 | 3 | 4 | |
| 46 | Pine Road 2/1 | 1 | 6 | 1 | 53 | 50 | 43 | 3 | 2 |
| 47 | Pine Road 2/1 | 2 | 6 | 1 | 45 | 42 | 37 | 3 | 2 |
| 48 | Teak Tree 1/1 | 1 | 1 | 1 | 42 | 28 | 20 | 3 | 2 |
| 49 | Teak Tree 2/1 | 1 | 1 | 1 | 35 | 28 | 12 | 3 | 2 |
| 50 | Frenchmans Ridge 1/1 | 1 | 2 | 4 | 22 | 16 | 5 | 3 | 1 |
| 51 | Frenchmans Ridge 1/1 | 2 | 15 | 2 | | | | | |
| 52 | Frenchmans Ridge 1/1 | 3 | 2 | 1 | 19 | 19 | 5 | 3 | 2 |
| 53 | Frenchmans Ridge 1/1 | 4 | 15 | 2 | | | | | |
| 54 | Frenchmans Ridge 1/1 | 5 | 15 | 2 | | | | | |
| 55 | Frenchmans Ridge 1/1 | 6 | 1 | 1 | 25 | 16 | 6 | 4 | |
| 56 | Frenchmans Ridge 1/1 | 7 | 3 | 2 | 19 | 13 | 6 | | |
| 57 | Frenchmans Ridge 1/1 | 8 | 3 | 1 | 30 | 22 | 8 | 3 | 2 |
| 58 | Frenchmans Ridge 1/1 | 9 | 2 | 1 | 19 | 9 | 3 | 3 | 2 |
| 59 | Frenchmans Ridge 1/1 | 10 | 6 | 2 | 37 | 32 | 31 | 1 | 2 |
| 60 | Frenchmans Ridge 1/1 | 11 | 16 | 1 | 85 | 70 | 40 | 0 | 2 |
| 61 | Frenchmans Ridge 1/1 | 12 | 2 | 1 | 43 | 21 | 8 | 3 | 2 |
| 62 | Frenchmans Ridge 1/1 | 13 | 1 | 2 | 18 | 14 | 4 | | |

# Dorrigo Three Year Management Area Artefact Database

| Row | Site name | Art. no. | Art. type | Raw material | length | width | thickness | cortex | cortex type |
|---|---|---|---|---|---|---|---|---|---|
| 63 | Frenchmans Ridge 1/1 | 14 | 3 | 2 | 20 | 12 | 7 | | |
| 64 | Frenchmans Ridge 1/1 | 15 | 15 | 1 | | | | | |
| 65 | Frenchmans Ridge 1/1 | 16 | 2 | 1 | 25 | 36 | 8 | | |
| 66 | Frenchmans Ridge 1/1 | 17 | 2 | 1 | 20 | 15 | 6 | 3 | 2 |
| 67 | Frenchmans Ridge 1/1 | 18 | 2 | 1 | 28 | 12 | 5 | 3 | 2 |
| 68 | Frenchmans Ridge 1/1 | 19 | 3 | 1 | 36 | 16 | 10 | | |
| 69 | Frenchmans Ridge 1/1 | 20 | 18 | 1 | 42 | 23 | 12 | 3 | 2 |
| 70 | Frenchmans Ridge 1/1 | 21 | 6 | 1 | 70 | 50 | 28 | 3 | 2 |
| 71 | Frenchmans Ridge 1/1 | 22 | 2 | 1 | 37 | 19 | 7 | 3 | 2 |
| 72 | Frenchmans Ridge 1/1 | 23 | 7 | 1 | 36 | 14 | 8 | 3 | 2 |
| 73 | Frenchmans Ridge 1/1 | 24 | 6 | 2 | 25 | 25 | 20 | 3 | 2 |
| 74 | Frenchmans Ridge 1/1 | 25 | 2 | 1 | 22 | 24 | 6 | 3 | 2 |
| 75 | Frenchmans Ridge 1/1 | 26 | 20 | 4 | 55 | 45 | 30 | 1 | 1 |
| 76 | Frenchmans Ridge 1/1 | 27 | 16 | 1 | 100 | 80 | 30 | 0 | 2 |
| 77 | Frenchmans Ridge 1/1 | 28 | 6 | 1 | 70 | 33 | 28 | 3 | 2 |
| 78 | Frenchmans Ridge 1/1 | 29 | 2 | 1 | 23 | 14 | 4 | | |
| 79 | Frenchmans Ridge 1/1 | 30 | 4 | 2 | 13 | 9 | 3 | | |
| 80 | Frenchmans Ridge 1/1 | 31 | 1 | 1 | 28 | 24 | 7 | 3 | 2 |
| 81 | Frenchmans Ridge 1/1 | 32 | 1 | 1 | 12 | 15 | 6 | 3 | 2 |
| 82 | Frenchmans Ridge 1/1 | 33 | 15 | 1 | | | | | |
| 83 | Frenchmans Ridge 1/1 | 34 | 1 | 1 | 25 | 25 | 10 | 3 | 2 |
| 84 | Frenchmans Ridge 1/1 | 35 | 1 | 6 | 43 | 38 | 10 | 3 | 2 |
| 85 | Frenchmans Ridge 1/1 | 36 | 1 | 1 | 38 | 37 | 12 | 3 | 2 |
| 86 | Frenchmans Ridge 1/1 | 37 | 1 | 1 | 42 | 54 | 14 | 3 | 2 |
| 87 | Frenchmans Ridge 1/1 | 38 | 20 | 6 | 75 | 35 | 23 | 3 | 1 |
| 88 | Frenchmans Ridge 1/1 | 39 | 19 | 6 | 105 | 55 | 33 | 3 | 1 |
| 89 | Frenchmans Ridge 1/1 | 40 | 6 | 1 | 40 | 35 | 20 | | |
| 90 | Frenchmans Ridge 1/1 | 41 | 3 | 1 | 32 | 19 | 11 | 3 | 2 |
| 91 | Frenchmans Ridge 1/1 | 42 | 2 | 1 | 12 | 23 | 4 | 3 | 2 |
| 92 | Frenchmans Ridge 1/1 | 43 | 2 | 1 | 32 | 23 | 10 | 3 | 2 |
| 93 | Frenchmans Ridge 1/1 | 44 | 7 | 1 | 42 | 21 | 20 | 3 | 2 |
| 94 | Frenchmans Ridge 1/1 | 45 | 1 | 1 | 35 | 10 | 3 | | |
| 95 | Frenchmans Ridge 1/1 | 46 | 1 | 1 | 27 | 29 | 5 | | |
| 96 | Frenchmans Ridge 1/1 | 47 | 3 | 1 | 33 | 22 | 8 | 3 | 2 |
| 97 | Frenchmans Ridge 1/1 | 48 | 2 | 1 | 25 | 40 | 10 | 3 | 2 |
| 98 | Frenchmans Ridge 1/1 | 49 | 3 | 1 | 25 | 20 | 7 | 3 | 2 |
| 99 | Frenchmans Ridge 1/1 | 50 | 1 | 1 | 27 | 20 | 7 | 3 | 2 |
| 100 | Frenchmans Ridge 1/1 | 51 | 1 | 1 | 20 | 12 | 2 | | |
| 101 | Frenchmans Ridge 1/1 | 52 | 5 | 1 | 13 | 17 | 4 | | |
| 102 | Frenchmans Ridge 1/1 | 53 | 2 | 1 | 13 | 15 | 3 | 3 | 2 |
| 103 | Frenchmans Ridge 1/1 | 54 | 2 | 1 | 14 | 16 | 8 | | |
| 104 | Frenchmans Ridge 1/1 | 55 | 2 | 1 | 25 | 37 | 7 | 3 | 2 |
| 105 | Frenchmans Ridge 1/1 | 56 | 1 | 1 | 27 | 22 | 5 | 3 | 2 |
| 106 | Frenchmans Ridge 1/1 | 57 | 2 | 1 | 27 | 30 | 10 | 3 | 2 |
| 107 | Frenchmans Ridge 1/1 | 58 | 3 | 1 | 31 | 13 | 6 | | |
| 108 | Frenchmans Ridge 1/1 | 59 | 4 | 1 | 35 | 10 | 7 | | |
| 109 | Frenchmans Ridge 1/1 | 60 | 2 | 1 | 18 | 25 | 5 | 3 | 2 |
| 110 | Frenchmans Ridge 1/1 | 61 | 15 | 1 | | | | | |
| 111 | Frenchmans Ridge 1/1 | 62 | 3 | 1 | 27 | 20 | 5 | 3 | 2 |
| 112 | Frenchmans Ridge 1/1 | 63 | 1 | 1 | 54 | 39 | 14 | 3 | 2 |
| 113 | Frenchmans Ridge 1/1 | 64 | 2 | 1 | 33 | 20 | 6 | 4 | |
| 114 | Frenchmans Ridge 1/1 | 65 | 14 | 1 | 18 | 8 | 3 | 4 | |
| 115 | Frenchmans Ridge 1/1 | 66 | 3 | 1 | 25 | 14 | 5 | | |
| 116 | Frenchmans Ridge 1/1 | 67 | 1 | 1 | 23 | 35 | 10 | 4 | |
| 117 | Frenchmans Ridge 1/2 | 1 | 2 | 1 | 40 | 23 | 7 | 3 | 2 |
| 118 | Frenchmans Ridge 2/1 | 1 | 6 | 1 | 85 | 57 | 37 | 2 | 2 |
| 119 | Frenchmans Ridge 2/1 | 2 | 2 | 1 | 12 | 17 | 4 | 4 | |
| 120 | Frenchmans Ridge 2/1 | 3 | 6 | 1 | 63 | 40 | 40 | 3 | 2 |
| 121 | Frenchmans Ridge 2/1 | 4 | 8 | 1 | 27 | 17 | 16 | 3 | 2 |
| 122 | Frenchmans Ridge 2/1 | 5 | 3 | 1 | 32 | 30 | 16 | 3 | 2 |
| 123 | Frenchmans Ridge 2/1 | 6 | 6 | 1 | 65 | 45 | 30 | 2 | 2 |
| 124 | Frenchmans Ridge 2/1 | 7 | 6 | 1 | 65 | 50 | 35 | 2 | 2 |

# Dorrigo Three Year Management Area Artefact Database

| Row | Site name | Art. no. | Art. type | Raw material | length | width | thickness | cortex | cortex type |
|---|---|---|---|---|---|---|---|---|---|
| 125 | Frenchmans Ridge 2/1 | 8 | 3 | 1 | 21 | 12 | 2 | | |
| 126 | Frenchmans Ridge 2/1 | 9 | 2 | 1 | 18 | 15 | 5 | | |
| 127 | Frenchmans Ridge 2/2 | 1 | 1 | 1 | 48 | 20 | 14 | 3 | 2 |
| 128 | Frenchmans Ridge 2/2 | 2 | 2 | 1 | 25 | 11 | 7 | 4 | |
| 129 | Frenchmans Ridge 2/2 | 3 | 6 | 1 | 63 | 57 | 20 | 3 | 2 |
| 130 | Frenchmans Ridge 2/2 | 4 | 3 | 1 | 32 | 21 | 9 | | |
| 131 | Frenchmans Ridge 2/2 | 5 | 1 | 1 | 25 | 12 | 8 | | |
| 132 | Frenchmans Ridge 2/2 | 6 | 7 | 1 | 87 | 48 | 42 | 3 | 2 |
| 133 | Frenchmans Ridge 2/2 | 7 | 1 | 1 | 32 | 23 | 9 | 3 | 2 |
| 134 | Frenchmans Ridge 3/1 | 1 | 6 | 2 | 35 | 20 | 20 | | |
| 135 | Frenchmans Ridge 3/1 | 2 | 1 | 4 | | 45 | 45 | 14 | |
| 136 | Frenchmans Ridge 4/1 | 1 | 16 | 1 | 120 | 100 | 85 | 1 | 2 |
| 137 | Frenchmans Ridge 4/1 | 2 | 2 | 1 | 12 | 17 | 3 | 3 | 2 |
| 138 | Frenchmans Ridge 4/1 | 3 | 5 | 1 | 16 | 14 | 4 | | |
| 139 | Frenchmans Ridge 4/1 | 4 | 1 | 1 | 23 | 27 | 19 | 3 | 2 |
| 140 | Frenchmans Ridge 4/1 | 5 | 6 | 1 | 75 | 48 | 38 | 3 | 2 |
| 141 | Frenchmans Ridge 4/1 | 6 | 1 | 1 | 32 | 20 | 5 | 3 | 2 |
| 142 | Frenchmans Ridge 4/1 | 7 | 16 | 1 | 83 | 70 | 17 | 1 | 2 |
| 143 | Frenchmans Ridge 4/2 | 1 | 1 | 1 | 35 | 17 | 10 | 3 | 2 |
| 144 | Frenchmans Ridge 4/2 | 2 | 2 | 1 | 25 | 52 | 10 | | |
| 145 | Frenchmans Ridge 4/2 | 3 | 6 | 1 | 60 | 42 | 27 | 3 | 2 |
| 146 | Frenchmans Ridge 4/2 | 4 | 6 | 1 | 125 | 75 | 50 | 2 | 2 |
| 147 | Frenchmans Ridge 4/2 | 5 | 6 | 1 | 65 | 42 | 30 | 3 | 2 |
| 148 | Frenchmans Ridge 4/2 | 6 | 2 | 1 | 20 | 33 | 8 | 3 | 2 |
| 149 | Frenchmans Ridge 4/2 | 7 | 6 | 1 | 105 | 70 | 28 | 3 | 2 |
| 150 | Frenchmans Ridge 4/2 | 8 | 2 | 4 | 65 | 105 | 20 | 3 | 2 |
| 151 | Frenchmans Ridge 4/2 | 9 | 1 | 1 | 55 | 38 | 14 | 4 | |
| 152 | Frenchmans Ridge 4/2 | 10 | 19 | 4 | 92 | 73 | 32 | 1 | 1 |
| 153 | Frenchmans Ridge 4/2 | 11 | 6 | 1 | 128 | 110 | 70 | 2 | 2 |
| 154 | Frenchmans Ridge 4/2 | 12 | 1 | 4 | 15 | 16 | 3 | | |
| 155 | Frenchmans Ridge 4/2 | 13 | 6 | 1 | 45 | 37 | 21 | 3 | 2 |
| 156 | Frenchmans Ridge 4/2 | 14 | 6 | 1 | 42 | 25 | 20 | 3 | 2 |
| 157 | Frenchmans Ridge 4/2 | 15 | 19 | 4 | 100 | 75 | 30 | 2 | 1 |
| 158 | Frenchmans Ridge 4/2 | 16 | 8 | 1 | 40 | 35 | 20 | 3 | 2 |
| 159 | Frenchmans Ridge 5/1 | 1 | 7 | 1 | 50 | 43 | 17 | 3 | 2 |
| 160 | Frenchmans Ridge 5/1 | 2 | 1 | 4 | 30 | 22 | 12 | 3 | 2 |
| 161 | Frenchmans Ridge 5/1 | 3 | 1 | 4 | 42 | 40 | 10 | 3 | 2 |
| 162 | Frenchmans Ridge 5/1 | 4 | 2 | 1 | 30 | 42 | 5 | | |
| 163 | Frenchmans Ridge 5/1 | 5 | 16 | 1 | 85 | 45 | 33 | 1 | 2 |
| 164 | Frenchmans Ridge 5/1 | 6 | 3 | 1 | 45 | 35 | 20 | 3 | 2 |
| 165 | Frenchmans Ridge 5/1 | 7 | 6 | 1 | 47 | 40 | 20 | 3 | 2 |
| 166 | Frenchmans Ridge 5/1 | 8 | 5 | 1 | 18 | 22 | 7 | 4 | |
| 167 | Frenchmans Ridge 5/1 | 9 | 19 | 1 | 68 | 47 | 27 | 3 | 2 |
| 168 | Frenchmans Ridge 5/1 | 10 | 1 | 1 | 23 | 21 | 9 | 3 | 2 |
| 169 | Frenchmans Ridge 5/1 | 11 | 1 | 1 | 40 | 42 | 12 | 3 | 2 |
| 170 | Frenchmans Ridge 5/2 | 1 | 11 | 4 | 100 | 80 | 75 | 0 | 1 |
| 171 | Frenchmans Ridge 5/2 | 2 | 6 | 1 | 35 | 30 | 15 | 3 | 2 |
| 172 | Frenchmans Ridge 5/2 | 3 | 8 | 1 | 25 | 12 | 10 | 4 | |
| 173 | Frenchmans Ridge 5/2 | 4 | 1 | 2 | 35 | 22 | 12 | 4 | |
| 174 | Frenchmans Ridge 5/2 | 5 | 1 | 1 | 37 | 38 | 9 | 3 | 2 |
| 175 | Frenchmans Ridge 5/2 | 6 | 1 | 4 | 38 | 30 | 9 | 3 | 2 |
| 176 | Frenchmans Ridge 5/3 | 1 | 5 | 1 | 10 | 12 | 6 | 4 | |
| 177 | Frenchmans Ridge 5/3 | 2 | 21 | 3 | 23 | 17 | 12 | 3 | 1 |
| 178 | Frenchmans Ridge 5/3 | 3 | 3 | 1 | 20 | 17 | 13 | | |
| 179 | Frenchmans Ridge 5/3 | 4 | 1 | 1 | 22 | 35 | 4 | 3 | 2 |
| 180 | Frenchmans Ridge 5/3 | 5 | 1 | 1 | 28 | 28 | 7 | 3 | 2 |
| 181 | Frenchmans Ridge 5/3 | 6 | 1 | 1 | 25 | 38 | 9 | | |
| 182 | Frenchmans Ridge 5/4 | 1 | 2 | 1 | 42 | 40 | 15 | 4 | |
| 183 | Frenchmans Ridge 5/4 | 2 | 1 | 1 | 30 | 22 | 5 | 4 | |
| 184 | Frenchmans Ridge 5/4 | 3 | 6 | 2 | 35 | 29 | 20 | | |
| 185 | Frenchmans Ridge 5/4 | 4 | 5 | 2 | 25 | 12 | 8 | | |
| 186 | Frenchmans Ridge 5/4 | 5 | 1 | 1 | 23 | 22 | 12 | 3 | 2 |

# Dorrigo Three Year Management Area Artefact Database

| Row | Site name | Art. no. | Art. type | Raw material | length | width | thickness | cortex | cortex type |
|---|---|---|---|---|---|---|---|---|---|
| 187 | Frenchmans Ridge 5/4 | 6 | 1 | 1 | 38 | 30 | 8 | 3 | 2 |
| 188 | Frenchmans Ridge 5/4 | 7 | 5 | 2 | 11 | 15 | 4 | 4 | |
| 189 | Frenchmans Ridge 5/4 | 8 | 1 | 1 | 35 | 32 | 10 | 3 | 2 |
| 190 | Frenchmans Ridge 5/4 | 9 | 6 | 1 | 45 | 30 | 23 | 3 | 2 |
| 191 | Frenchmans Ridge 5/4 | 10 | 2 | 1 | 23 | 49 | 7 | 3 | 2 |
| 192 | Frenchmans Ridge 5/5 | 1 | 19 | 1 | 130 | 90 | 30 | 1 | 1 |
| 193 | Frenchmans Ridge 5/5 | 2 | 3 | 1 | 20 | 15 | 7 | 4 | |
| 194 | Frenchmans Ridge 5/5 | 3 | 1 | 1 | 25 | 27 | 10 | 4 | |
| 195 | Frenchmans Ridge 5/5 | 4 | 1 | 1 | 55 | 35 | 15 | 3 | 2 |
| 196 | Frenchmans Ridge 5/5 | 5 | 1 | 1 | 27 | 25 | 6 | 3 | 2 |
| 197 | Frenchmans Ridge 5/5 | 6 | 1 | 2 | 13 | 9 | 3 | 4 | |
| 198 | Frenchmans Ridge 5/5 | 7 | 2 | 1 | 12 | 22 | 5 | 4 | |
| 199 | Frenchmans Ridge 5/5 | 8 | 2 | 2 | 13 | 12 | 3 | 4 | |
| 200 | Red Herring 1/1 | 1 | 3 | 1 | 33 | 24 | 12 | 3 | 2 |
| 201 | Red Herring 1/1 | 2 | 3 | 1 | 80 | 38 | 16 | 3 | 2 |
| 202 | Red Herring 1/1 | 3 | 1 | 1 | 25 | 28 | 9 | 4 | |
| 203 | Red Herring 1/1 | 4 | 2 | 1 | 26 | 22 | 5 | 4 | |
| 204 | Red Herring 1/1 | 5 | 3 | 1 | 45 | 23 | 19 | 4 | |
| 205 | Red Herring 1/1 | 6 | 1 | 1 | 37 | 50 | 9 | 4 | |
| 206 | Red Herring 1/1 | 7 | 1 | 1 | 18 | 23 | 8 | 4 | |
| 207 | Red Herring 1/1 | 8 | 1 | 1 | 17 | 17 | 3 | 4 | |
| 208 | Red Herring 1/1 | 9 | 2 | 1 | 20 | 42 | 7 | 3 | 2 |
| 209 | Red Herring 1/1 | 10 | 1 | 1 | 21 | 11 | 4 | 4 | |
| 210 | Red Herring 1/1 | 11 | 3 | 1 | 23 | 15 | 11 | 3 | 2 |
| 211 | Red Herring 1/1 | 12 | 2 | 1 | 15 | 47 | 6 | 3 | 2 |
| 212 | Red Herring 1/1 | 13 | 2 | 1 | 22 | 40 | 14 | 4 | |
| 213 | Red Herring 1/1 | 14 | 1 | 1 | 48 | 44 | 12 | 3 | 2 |
| 214 | Red Herring 1/1 | 15 | 3 | 1 | 45 | 25 | 12 | 3 | 2 |
| 215 | Red Herring 1/1 | 16 | 1 | 1 | 70 | 50 | 15 | 4 | |
| 216 | Red Herring 1/1 | 17 | 1 | 1 | 21 | 22 | 8 | 3 | 2 |
| 217 | Red Herring 1/1 | 18 | 1 | 1 | 27 | 17 | 7 | 3 | 2 |
| 218 | Red Herring 1/1 | 19 | 3 | 1 | 72 | 32 | 23 | 4 | |
| 219 | Red Herring 1/1 | 20 | 1 | 1 | 75 | 32 | 14 | 3 | 2 |
| 220 | Red Herring 1/1 | 21 | 6 | 1 | 90 | 50 | 20 | 3 | 2 |
| 221 | Red Herring 1/1 | 22 | 1 | 1 | 17 | 10 | 5 | 3 | 2 |
| 222 | Red Herring 1/1 | 23 | 1 | 1 | 90 | 87 | 29 | 2 | 2 |
| 223 | Red Herring 1/1 | 24 | 1 | 1 | 25 | 45 | 6 | 3 | 2 |
| 224 | Red Herring 1/1 | 25 | 6 | 1 | 120 | 105 | 70 | 3 | 2 |
| 225 | Red Herring 1/1 | 26 | 3 | 1 | 32 | 25 | 12 | 4 | |
| 226 | Red Herring 4/1 | 1 | 1 | 1 | 19 | 16 | 8 | 3 | 2 |
| 227 | Red Herring 4/1 | 2 | 1 | 1 | 20 | 17 | 7 | 4 | |
| 228 | Red Herring 4/1 | 3 | 1 | 1 | 42 | 40 | 15 | 3 | 2 |
| 229 | Red Herring 4/1 | 4 | 3 | 1 | 45 | 30 | 12 | 3 | 2 |
| 230 | Red Herring 4/1 | 5 | 1 | 4 | 38 | 30 | 9 | 3 | 1 |
| 231 | Red Herring 4/1 | 6 | 3 | 1 | 35 | 20 | 7 | 4 | |
| 232 | Red Herring 4/1 | 7 | 5 | 1 | 18 | 17 | 8 | 4 | |
| 233 | Red Herring 4/1 | 8 | 3 | 1 | 40 | 19 | 12 | 4 | |
| 234 | Red Herring 4/1 | 9 | 1 | 1 | 30 | 26 | 8 | 3 | 2 |
| 235 | Red Herring 4/1 | 10 | 1 | 4 | 28 | 35 | 9 | 3 | 1 |
| 236 | Red Herring 4/1 | 11 | 3 | 1 | 26 | 18 | 13 | 4 | |
| 237 | Red Herring 4/1 | 12 | 3 | 1 | 15 | 11 | 6 | 4 | |
| 238 | Red Herring 4/1 | 13 | 6 | 1 | 50 | 45 | 20 | 3 | 1 |
| 239 | Red Herring 4/1 | 14 | 3 | 1 | 65 | 50 | 32 | 3 | 2 |
| 240 | Red Herring 4/1 | 15 | 1 | 2 | 20 | 13 | 8 | | |
| 241 | Red Herring 4/1 | 16 | 1 | 2 | 8 | 11 | 3 | | |
| 242 | Red Herring 4/1 | 17 | 1 | 2 | 20 | 13 | 7 | | |
| 243 | Red Herring 4/1 | 18 | 1 | 2 | 13 | 21 | 5 | | |
| 244 | Red Herring 4/1 | 19 | 1 | 2 | 20 | 11 | 8 | | |
| 245 | Red Herring 4/1 | 20 | 11 | 4 | 85 | 75 | 33 | 1 | 1 |
| 246 | Red Herring 4/1 | 21 | 4 | 1 | 23 | 10 | 8 | 4 | |
| 247 | Red Herring 4/1 | 22 | 1 | 3 | 15 | 11 | 3 | 4 | |
| 248 | Red Herring 4/1 | 23 | 2 | 1 | 16 | 20 | 3 | 4 | |

# Dorrigo Three Year Management Area Artefact Database

| Row | Site name | Art. no. | Art. type | Raw material | length | width | thickness | cortex | cortex type |
|---|---|---|---|---|---|---|---|---|---|
| 249 | Red Herring 4/1 | 24 | 4 | 1 | 16 | 6 | 3 | 4 | |
| 250 | Red Herring 4/1 | 25 | 2 | 1 | 10 | 20 | 4 | | |
| 251 | Red Herring 4/1 | 26 | 1 | 2 | 16 | 12 | 6 | | |
| 252 | Red Herring 4/1 | 27 | 1 | 1 | 14 | 20 | 8 | 3 | 2 |
| 253 | Red Herring 4/1 | 28 | 1 | 2 | 30 | 30 | 11 | | |
| 254 | Red Herring 4/1 | 29 | 1 | 1 | 48 | 42 | 13 | 3 | 1 |
| 255 | Red Herring 4/1 | 30 | 7 | 1 | 65 | 42 | 20 | 2 | 1 |
| 256 | Red Herring 4/1 | 31 | 1 | 1 | 80 | 70 | 25 | 3 | 1 |
| 257 | Red Herring 4/1 | 32 | 1 | 1 | 52 | 40 | 16 | 3 | 2 |
| 258 | Red Herring 4/1 | 33 | 1 | 1 | 53 | 60 | 23 | 3 | 1 |
| 259 | Red Herring 4/1 | 34 | 1 | 3 | 16 | 14 | 6 | 4 | |
| 260 | Red Herring 4/1 | 35 | 1 | 2 | 12 | 14 | 3 | 4 | |
| 261 | Red Herring 4/1 | 36 | 1 | 2 | 25 | 15 | 11 | | |
| 262 | Red Herring 4/1 | 37 | 1 | 1 | 38 | 26 | 11 | 4 | |
| 263 | Red Herring 4/1 | 38 | 4 | 3 | 9 | 4 | 2 | 4 | |
| 264 | Red Herring 4/1 | 39 | 2 | 1 | 21 | 15 | 6 | 4 | |
| 265 | Red Herring 4/1 | 40 | 1 | 1 | 32 | 21 | 11 | | |
| 266 | Red Herring 4/1 | 41 | 4 | 1 | 50 | 24 | 14 | 4 | |
| 267 | Red Herring 4/1 | 42 | 1 | 1 | 50 | 48 | 15 | 2 | 1 |
| 268 | Red Herring 4/1 | 43 | 1 | 1 | 55 | 40 | 13 | 3 | 1 |
| 269 | Red Herring 4/1 | 44 | 1 | 1 | 58 | 38 | 14 | 3 | 1 |
| 270 | Red Herring 4/1 | 45 | 1 | 1 | 42 | 32 | 13 | 3 | 2 |
| 271 | Red Herring 4/1 | 46 | 1 | 1 | 25 | 50 | 20 | 3 | 2 |
| 272 | Red Herring 4/1 | 47 | 1 | 1 | 37 | 25 | 10 | 3 | 1 |
| 273 | Red Herring 4/1 | 48 | 6 | 1 | 60 | 42 | 25 | 3 | 2 |
| 274 | Red Herring 4/1 | 49 | 1 | 1 | 50 | 40 | 15 | 4 | |
| 275 | Red Herring 4/1 | 50 | 1 | 1 | 40 | 53 | 15 | 3 | 1 |
| 276 | Red Herring 4/1 | 51 | 6 | 1 | 50 | 28 | 10 | 2 | 1 |
| 277 | Red Herring 4/1 | 52 | 1 | 1 | 30 | 29 | 15 | 4 | |
| 278 | Red Herring 4/1 | 53 | 2 | 1 | 20 | 32 | 10 | 4 | |
| 279 | Red Herring 4/1 | 54 | 1 | 1 | 29 | 28 | 3 | 3 | 1 |
| 280 | Red Herring 4/1 | 55 | 7 | 1 | 32 | 15 | 11 | 3 | 1 |
| 281 | Red Herring 4/1 | 56 | 1 | 1 | 25 | 17 | 5 | 4 | |
| 282 | Red Herring 4/1 | 57 | 1 | 1 | 31 | 19 | 6 | 3 | 2 |
| 283 | Red Herring 4/1 | 58 | 1 | 1 | 28 | 38 | 8 | 3 | 2 |
| 284 | Red Herring 4/1 | 59 | 2 | 1 | 20 | 21 | 6 | 4 | |
| 285 | Red Herring 4/1 | 60 | 1 | 1 | 22 | 16 | 6 | 3 | 1 |
| 286 | Red Herring 4/1 | 61 | 3 | 1 | 23 | 17 | 11 | 3 | 1 |
| 287 | Red Herring 4/1 | 62 | 2 | 1 | 27 | 17 | 10 | 3 | 2 |
| 288 | Red Herring 4/1 | 63 | 1 | 1 | 23 | 18 | 7 | 4 | |
| 289 | Red Herring 4/1 | 64 | 1 | 1 | 19 | 28 | 5 | 4 | |
| 290 | Red Herring 4/1 | 65 | 4 | 1 | 30 | 11 | 3 | 4 | |
| 291 | Red Herring 4/1 | 66 | 1 | 1 | 16 | 21 | 6 | 3 | 1 |
| 292 | Red Herring 4/1 | 67 | 3 | 1 | 23 | 15 | 5 | 4 | |
| 293 | Red Herring 4/1 | 68 | 2 | 1 | 12 | 18 | 3 | 4 | |
| 294 | Red Herring 4/1 | 69 | 1 | 1 | 11 | 10 | 3 | 4 | |
| 295 | Red Herring 4/1 | 70 | 2 | 1 | 15 | 22 | 5 | 4 | |
| 296 | Red Herring 4/1 | 71 | 2 | 1 | 12 | 17 | 3 | 4 | |
| 297 | Red Herring 4/1 | 72 | 14 | 1 | 17 | 12 | 3 | 4 | |
| 298 | Red Herring 4/1 | 73 | 1 | 1 | 20 | 13 | 4 | 3 | 1 |
| 299 | Red Herring 4/1 | 74 | 3 | 1 | 19 | 12 | 8 | 4 | |
| 300 | Red Herring 4/1 | 75 | 2 | 1 | 15 | 15 | 5 | 4 | |
| 301 | Red Herring 4/1 | 76 | 1 | 1 | 10 | 16 | 3 | 3 | 2 |
| 302 | Red Herring 4/1 | 77 | 1 | 1 | 13 | 14 | 3 | 3 | 1 |
| 303 | Red Herring 4/1 | 78 | 2 | 1 | 15 | 12 | 4 | 4 | |
| 304 | Red Herring 4/1 | 79 | 4 | 1 | 22 | 8 | 5 | 4 | |
| 305 | Red Herring 4/1 | 80 | 2 | 1 | 15 | 11 | 4 | 4 | |
| 306 | Red Herring 4/1 | 81 | 3 | 1 | 18 | 6 | 5 | 3 | 1 |
| 307 | Red Herring 4/1 | 82 | 2 | 1 | 8 | 16 | 4 | 4 | |
| 308 | Red Herring 4/1 | 83 | 1 | 1 | 12 | 10 | 4 | 4 | |
| 309 | Red Herring 4/1 | 84 | 15 | 1 | | | | | |
| 310 | Red Herring 4/1 | 85 | 15 | 1 | | | | | |

# Dorrigo Three Year Management Area Artefact Database

| Row | Site name | Art. no. | Art. type | Raw material | length | width | thickness | cortex | cortex type |
|---|---|---|---|---|---|---|---|---|---|
| 311 | Red Herring 4/1 | 86 | 15 | 1 | | | | | |
| 312 | Red Herring 4/1 | 87 | 1 | 2 | 26 | 12 | 6 | | |
| 313 | Red Herring 4/1 | 88 | 3 | 2 | 20 | 20 | 9 | | |
| 314 | Red Herring 4/1 | 89 | 1 | 2 | 55 | 42 | 14 | | |
| 315 | Red Herring 4/1 | 90 | 1 | 1 | 55 | 30 | 16 | 3 | 1 |
| 316 | Red Herring 4/1 | 91 | 1 | 1 | 50 | 70 | 18 | 4 | |
| 317 | Red Herring 4/1 | 92 | 1 | 1 | 75 | 55 | 30 | 2 | 1 |
| 318 | Red Herring 4/1 | 93 | 6 | 1 | 48 | 43 | 20 | 3 | 1 |
| 319 | Red Herring 4/1 | 94 | 1 | 1 | 40 | 43 | 12 | 4 | |
| 320 | Red Herring 4/1 | 95 | 1 | 1 | 23 | 38 | 8 | 4 | |
| 321 | Red Herring 4/1 | 96 | 1 | 1 | 33 | 44 | 12 | 3 | 1 |
| 322 | Red Herring 4/1 | 97 | 6 | 1 | 35 | 29 | 20 | 4 | |
| 323 | Red Herring 4/1 | 98 | 1 | 1 | 28 | 23 | 8 | 4 | |
| 324 | Red Herring 4/1 | 99 | 1 | 1 | 25 | 21 | 9 | 4 | |
| 325 | Red Herring 4/1 | 100 | 3 | 1 | 25 | 21 | 6 | | |
| 326 | Red Herring 4/1 | 101 | 2 | 1 | 18 | 17 | 3 | 4 | |
| 327 | Red Herring 4/1 | 102 | 1 | 1 | 28 | 20 | 12 | 3 | 1 |
| 328 | Red Herring 4/1 | 103 | 2 | 1 | 23 | 32 | 7 | 4 | |
| 329 | Red Herring 4/1 | 104 | 3 | 1 | 26 | 14 | 9 | 3 | 2 |
| 330 | Red Herring 4/1 | 105 | 3 | 1 | 18 | 12 | 4 | | |
| 331 | Red Herring 4/1 | 106 | 1 | 1 | 20 | 28 | 7 | 3 | 2 |
| 332 | Red Herring 4/1 | 107 | 1 | 1 | 22 | 13 | 4 | | |
| 333 | Red Herring 4/1 | 108 | 3 | 1 | 16 | 9 | 8 | | |
| 334 | Red Herring 4/1 | 109 | 4 | 1 | 35 | 12 | 8 | 4 | |
| 335 | Red Herring 4/1 | 110 | 3 | 1 | 15 | 13 | 4 | 4 | |
| 336 | Red Herring 4/1 | 111 | 1 | 1 | 18 | 15 | 3 | 4 | |
| 337 | Red Herring 4/1 | 112 | 4 | 1 | 24 | 9 | 8 | 4 | |
| 338 | Red Herring 4/1 | 113 | 1 | 2 | 16 | 9 | 3 | | |
| 339 | Red Herring 4/1 | 114 | 1 | 2 | 18 | 14 | 5 | | |
| 340 | Red Herring 4/1 | 115 | 1 | 2 | 24 | 16 | 6 | | |
| 341 | Red Herring 4/1 | 116 | 1 | 2 | 17 | 12 | 7 | | |
| 342 | Red Herring 4/1 | 117 | 4 | 2 | 11 | 4 | 3 | | |
| 343 | Red Herring 4/1 | 118 | 3 | 2 | 17 | 13 | 7 | | |
| 344 | Red Herring 4/1 | 119 | 1 | 1 | 10 | 11 | 2 | | |
| 345 | Red Herring 4/2 | 1 | 11 | 7 | 100 | 90 | 55 | 0 | 1 |
| 346 | Red Herring 4/2 | 2 | 6 | 1 | 115 | 80 | 45 | 2 | 1 |
| 347 | Red Herring 4/2 | 3 | 10 | 4 | 170 | 100 | 50 | 1 | 1 |
| 348 | Red Herring 4/2 | 4 | 1 | 1 | 32 | 27 | 10 | 3 | 1 |
| 349 | Red Herring 4/2 | 5 | 1 | 1 | 32 | 26 | 9 | 4 | |
| 350 | Red Herring 4/2 | 6 | 1 | 1 | 26 | 40 | 6 | 4 | |
| 351 | Red Herring 4/2 | 7 | 1 | 1 | 26 | 21 | 8 | 3 | 1 |
| 352 | Red Herring 4/2 | 8 | 3 | 1 | 27 | 17 | 10 | 4 | |
| 353 | Red Herring 4/2 | 9 | 1 | 1 | 25 | 16 | 3 | 4 | |
| 354 | Red Herring 4/2 | 10 | 1 | 1 | 17 | 13 | 4 | 4 | |
| 355 | Red Herring 4/2 | 11 | 2 | 1 | 17 | 16 | 3 | 4 | |
| 356 | Red Herring 4/2 | 12 | 1 | 1 | 20 | 10 | 8 | 4 | |
| 357 | Red Herring 4/2 | 13 | 1 | 1 | 17 | 12 | 4 | 3 | 2 |
| 358 | Red Herring 4/2 | 14 | 15 | 1 | | | | | |
| 359 | Red Herring 4/2 | 15 | 4 | 1 | 18 | 7 | 2 | 4 | |
| 360 | Red Herring 4/2 | 16 | 2 | 1 | 12 | 28 | 4 | 4 | |
| 361 | Red Herring 4/2 | 17 | 4 | 4 | 37 | 15 | 5 | 4 | |
| 362 | Red Herring 4/2 | 18 | 1 | 1 | 12 | 20 | 3 | 4 | |
| 363 | Red Herring 4/2 | 19 | 1 | 1 | 5 | 13 | 2 | 3 | 2 |
| 364 | Red Herring 4/2 | 20 | 1 | 1 | 10 | 11 | 3 | 4 | |
| 365 | Red Herring 4/2 | 21 | 2 | 1 | 9 | 15 | 3 | 4 | |
| 366 | Red Herring 4/2 | 22 | 2 | 2 | 11 | 9 | 3 | 4 | |
| 367 | Red Herring 4/2 | 23 | 3 | 1 | 16 | 10 | 6 | | |
| 368 | Red Herring 4/2 | 24 | 6 | 2 | 17 | 14 | 10 | | |
| 369 | Red Herring 4/2 | 25 | 15 | 2 | | | | | |
| 370 | Red Herring 4/2 | 26 | 15 | 2 | | | | | |
| 371 | Red Herring 4/2 | 27 | 1 | 2 | 18 | 9 | 6 | | |
| 372 | Red Herring 4/2 | 28 | 1 | 2 | 14 | 24 | 5 | 3 | 1 |

# Dorrigo Three Year Management Area Artefact Database

| Row | Site name | Art. no. | Art. type | Raw material | length | width | thickness | cortex | cortex type |
|---|---|---|---|---|---|---|---|---|---|
| 373 | Red Herring 4/2 | 29 | 1 | 4 | 53 | 46 | 17 | 4 | |
| 374 | Red Herring 4/2 | 30 | 3 | 1 | 45 | 30 | 20 | 3 | 1 |
| 375 | Red Herring 4/2 | 31 | 1 | 1 | 60 | 53 | 23 | 4 | |
| 376 | Red Herring 4/2 | 32 | 1 | 1 | 32 | 20 | 10 | 4 | |
| 377 | Red Herring 4/2 | 33 | 1 | 1 | 25 | 22 | 9 | 4 | |
| 378 | Red Herring 4/2 | 34 | 1 | 1 | 23 | 37 | 15 | 3 | 1 |
| 379 | Red Herring 4/2 | 35 | 1 | 1 | 14 | 21 | 7 | 3 | 1 |
| 380 | Red Herring 4/2 | 36 | 1 | 1 | 23 | 16 | 6 | 4 | |
| 381 | Red Herring 4/2 | 37 | 1 | 1 | 25 | 15 | 5 | 4 | |
| 382 | Red Herring 4/2 | 38 | 3 | 1 | 13 | 11 | 7 | 4 | |
| 383 | Red Herring 4/2 | 39 | 4 | 1 | 30 | 20 | 6 | 4 | |
| 384 | Red Herring 4/2 | 40 | 1 | 1 | 12 | 6 | 3 | 4 | |
| 385 | Red Herring 4/2 | 41 | 15 | 1 | | | | | |
| 386 | Red Herring 4/2 | 42 | 3 | 1 | 12 | 9 | 7 | 4 | |
| 387 | Red Herring 4/2 | 43 | 5 | 1 | 18 | 10 | 6 | 4 | |
| 388 | Red Herring 4/2 | 44 | 1 | 1 | 15 | 13 | 3 | 3 | 2 |
| 389 | Red Herring 4/2 | 45 | 15 | 1 | | | | | |
| 390 | Red Herring 4/2 | 46 | 15 | 1 | | | | | |
| 391 | Red Herring 4/2 | 47 | 3 | 1 | 13 | 8 | 4 | 4 | |
| 392 | Red Herring 4/2 | 48 | 1 | 2 | 20 | 12 | 7 | | |
| 393 | Red Herring 4/2 | 49 | 1 | 2 | 19 | 16 | 7 | | |
| 394 | Red Herring 4/2 | 50 | 1 | 1 | 40 | 20 | 12 | 4 | |
| 395 | Red Herring 4/2 | 51 | 1 | 1 | 26 | 20 | 10 | 4 | |
| 396 | Red Herring 4/2 | 52 | 1 | 1 | 17 | 14 | 5 | 2 | 1 |
| 397 | Red Herring 4/2 | 53 | 14 | 1 | 19 | 9 | 7 | 3 | 2 |
| 398 | Red Herring 4/2 | 54 | 3 | 1 | 19 | 10 | 9 | 4 | |
| 399 | Red Herring 4/2 | 55 | 3 | 1 | 16 | 8 | 7 | | |
| 400 | Red Herring 4/2 | 56 | 5 | 1 | 11 | 12 | 4 | 4 | |
| 401 | Red Herring 4/2 | 57 | 3 | 1 | 11 | 9 | 7 | 4 | |
| 402 | Red Herring 4/2 | 58 | 15 | 1 | | | | | |
| 403 | Red Herring 4/2 | 59 | 15 | 1 | | | | | |
| 404 | Red Herring 4/2 | 60 | 15 | 1 | | | | | |
| 405 | Red Herring 4/2 | 61 | 15 | 1 | | | | | |
| 406 | Red Herring 4/2 | 62 | 15 | 1 | | | | | |
| 407 | Red Herring 4/2 | 63 | 15 | 1 | | | | | |
| 408 | Red Herring 4/2 | 64 | 15 | 1 | | | | | |
| 409 | Red Herring 4/2 | 65 | 15 | 1 | | | | | |
| 410 | Red Herring 4/2 | 66 | 4 | 1 | 12 | 8 | 4 | 4 | |
| 411 | Red Herring 4/2 | 67 | 4 | 1 | 13 | 5 | 3 | 4 | |
| 412 | Red Herring 4/2 | 68 | 5 | 1 | 11 | 8 | 4 | 4 | |
| 413 | Red Herring 4/2 | 69 | 2 | 1 | 12 | 12 | 4 | 4 | |
| 414 | Red Herring 4/2 | 70 | 1 | 2 | 7 | 11 | 4 | 4 | |
| 415 | Red Herring 4/2 | 71 | 1 | 2 | 16 | 13 | 5 | | |
| 416 | Red Herring 4/2 | 72 | 3 | 1 | 32 | 20 | 11 | 3 | 1 |
| 417 | Red Herring 4/2 | 73 | 3 | 2 | 20 | 11 | 10 | | |
| 418 | Red Herring 4/2 | 74 | 6 | 2 | 27 | 18 | 13 | | |
| 419 | Red Herring 4/2 | 75 | 1 | 1 | 40 | 30 | 12 | 4 | |
| 420 | Red Herring 4/2 | 76 | 1 | 1 | 38 | 53 | 11 | 3 | 1 |
| 421 | Red Herring 4/2 | 77 | 6 | 1 | 43 | 24 | 21 | 3 | 1 |
| 422 | Red Herring 4/2 | 78 | 3 | 1 | 20 | 17 | 9 | 4 | |
| 423 | Red Herring 4/2 | 79 | 1 | 1 | 27 | 33 | 17 | 4 | |
| 424 | Red Herring 4/2 | 80 | 1 | 1 | 16 | 25 | 4 | 3 | 1 |
| 425 | Red Herring 4/2 | 81 | 1 | 1 | 18 | 13 | 4 | 4 | |
| 426 | Red Herring 4/2 | 82 | 3 | 1 | 22 | 16 | 9 | 3 | 1 |
| 427 | Red Herring 4/2 | 83 | 1 | 1 | 17 | 10 | 3 | 4 | |
| 428 | Red Herring 4/2 | 84 | 3 | 1 | 11 | 6 | 2 | 4 | |
| 429 | Red Herring 4/2 | 85 | 3 | 1 | 18 | 7 | 6 | | |
| 430 | Red Herring 4/2 | 86 | 3 | 1 | 39 | 24 | 16 | 3 | 1 |
| 431 | Red Herring 4/2 | 87 | 4 | 3 | 15 | 9 | 4 | 4 | |
| 432 | Red Herring 4/2 | 88 | 3 | 1 | 21 | 12 | 10 | | |
| 433 | Red Herring 4/2 | 89 | 15 | 1 | | | | | |
| 434 | Red Herring 4/2 | 90 | 17 | 5 | 18 | 9 | 6 | 4 | |

# Dorrigo Three Year Management Area Artefact Database

| Row | Site name | Art. no. | Art. type | Raw material | length | width | thickness | cortex | cortex type |
|---|---|---|---|---|---|---|---|---|---|
| 435 | Red Herring 4/2 | 91 | 1 | 2 | 17 | 12 | 7 | | |
| 436 | Red Herring 4/2 | 92 | 5 | 1 | 21 | 13 | 7 | 4 | |
| 437 | Red Herring 4/2 | 93 | 5 | 1 | 18 | 27 | 5 | 4 | |
| 438 | Red Herring 4/2 | 94 | 6 | 5 | 50 | 36 | 26 | 3 | 1 |
| 439 | Red Herring 4/2 | 95 | 15 | 1 | | | | | |
| 440 | Red Herring 4/2 | 96 | 1 | 1 | 12 | 9 | 3 | 4 | |
| 441 | Red Herring 4/2 | 97 | 2 | 1 | 9 | 11 | 3 | 4 | |
| 442 | Red Herring 4/2 | 98 | 4 | 1 | 15 | 10 | 3 | 4 | |
| 443 | Red Herring 4/2 | 99 | 1 | 1 | 20 | 14 | 4 | 4 | |
| 444 | Red Herring 4/2 | 100 | 1 | 1 | 16 | 20 | 6 | 4 | |
| 445 | Red Herring 4/2 | 101 | 1 | 1 | 29 | 26 | 5 | 3 | 1 |
| 446 | Red Herring 4/2 | 102 | 1 | 2 | 11 | 10 | 3 | 4 | |
| 447 | Red Herring 4/2 | 103 | 5 | 1 | 19 | 24 | 11 | 4 | |
| 448 | Red Herring 4/2 | 104 | 1 | 1 | 16 | 12 | 5 | 3 | 2 |
| 449 | Red Herring 4/2 | 105 | 6 | 3 | 16 | 13 | 8 | 4 | |
| 450 | Red Herring 4/2 | 106 | 1 | 1 | 11 | 12 | 3 | 4 | |
| 451 | Red Herring 4/2 | 107 | 1 | 1 | 27 | 19 | 6 | 2 | 1 |
| 452 | Red Herring 4/2 | 108 | 1 | 1 | 47 | 34 | 14 | 4 | |
| 453 | Red Herring 4/2 | 109 | 4 | 1 | 25 | 8 | 7 | 4 | |
| 454 | Red Herring 4/2 | 110 | 1 | 1 | 23 | 34 | 14 | 4 | |
| 455 | Red Herring 4/2 | 111 | 1 | 1 | 27 | 15 | 12 | 4 | |
| 456 | Red Herring 4/2 | 112 | 1 | 1 | 20 | 15 | 7 | | |
| 457 | Red Herring 4/2 | 113 | 2 | 1 | 13 | 17 | 4 | 4 | |
| 458 | Red Herring 4/2 | 114 | 4 | 2 | 15 | 7 | 4 | 4 | |
| 459 | Red Herring 4/2 | 115 | 1 | 2 | 15 | 10 | 5 | 4 | |
| 460 | Red Herring 4/2 | 116 | 5 | 2 | 10 | 13 | 3 | 4 | |
| 461 | Red Herring 4/2 | 117 | 1 | 2 | 24 | 20 | 9 | | |
| 462 | Red Herring 4/2 | 118 | 2 | 1 | 14 | 18 | 3 | 4 | |
| 463 | Red Herring 4/2 | 119 | 1 | 1 | 47 | 30 | 8 | 4 | |
| 464 | Red Herring 4/2 | 120 | 12 | 6 | 110 | 105 | 75 | 0 | 1 |
| 465 | Red Herring 4/2 | 121 | 1 | 2 | 15 | 10 | 5 | 4 | |
| 466 | Red Herring 4/2 | 122 | 19 | 1 | 70 | 55 | 35 | 3 | 2 |
| 467 | Red Herring 4/3 | 1 | 19 | 1 | 97 | 73 | 21 | 2 | 1 |
| 468 | Red Herring 4/4 | 1 | 3 | 1 | 24 | 20 | 9 | 4 | |
| 469 | Red Herring 6/1 | 1 | 1 | 1 | 18 | 14 | 4 | 4 | |
| 470 | Red Herring 6/1 | 2 | 6 | 1 | 53 | 45 | 32 | 4 | |
| 471 | Red Herring 6/1 | 3 | 1 | 1 | 31 | 30 | 10 | 3 | 2 |
| 472 | Red Herring 6/1 | 4 | 1 | 1 | 31 | 30 | 10 | 4 | |
| 473 | Red Herring 6/1 | 5 | 3 | 3 | 16 | 10 | 8 | | |
| 474 | Red Herring 6/1 | 6 | 3 | 1 | 19 | 13 | 7 | 4 | |
| 475 | Red Herring 6/1 | 7 | 3 | 1 | 40 | 28 | 14 | 3 | 2 |
| 476 | Red Herring 6/1 | 8 | 1 | 1 | 17 | 13 | 4 | 4 | |
| 477 | Red Herring 6/1 | 9 | 2 | 1 | 20 | 30 | 7 | 4 | |
| 478 | Red Herring 6/1 | 10 | 1 | 1 | 48 | 25 | 12 | 3 | 2 |
| 479 | Red Herring 6/1 | 11 | 1 | 1 | 18 | 16 | 4 | 4 | |
| 480 | Red Herring 6/1 | 12 | 3 | 1 | 15 | 12 | 8 | | |
| 481 | Red Herring 6/1 | 13 | 1 | 1 | 27 | 18 | 10 | 3 | 2 |
| 482 | Red Herring 6/1 | 14 | 2 | 1 | 22 | 30 | 10 | | |
| 483 | Red Herring 6/1 | 15 | 5 | 1 | 11 | 10 | 5 | | |
| 484 | Red Herring 6/1 | 16 | 1 | 1 | 11 | 10 | 4 | | |
| 485 | Red Herring 6/1 | 17 | 1 | 1 | 33 | 24 | 7 | 4 | |
| 486 | Red Herring 6/1 | 18 | 1 | 1 | 35 | 36 | 9 | 3 | 2 |
| 487 | Red Herring 6/1 | 19 | 15 | 1 | | | | | |
| 488 | Red Herring 6/1 | 20 | 1 | 2 | 18 | 13 | 10 | | |
| 489 | Red Herring 6/1 | 21 | 6 | 1 | 60 | 35 | 31 | 3 | 2 |
| 490 | Red Herring 6/1 | 22 | 1 | 1 | 35 | 22 | 10 | 4 | |
| 491 | Red Herring 6/1 | 23 | 1 | 1 | 38 | 30 | 13 | 4 | |
| 492 | Red Herring 6/1 | 24 | 1 | 1 | 25 | 18 | 7 | 4 | |
| 493 | Red Herring 6/1 | 25 | 3 | 1 | 25 | 13 | 9 | 3 | 2 |
| 494 | Red Herring 6/1 | 26 | 1 | 1 | 15 | 20 | 3 | 4 | |
| 495 | Red Herring 6/1 | 27 | 1 | 1 | 18 | 24 | 8 | 4 | |
| 496 | Red Herring 6/1 | 28 | 3 | 1 | 25 | 20 | 9 | | |

# Dorrigo Three Year Management Area Artefact Database

| Row | Site name | Art. no. | Art. type | Raw material | length | width | thickness | cortex | cortex type |
|---|---|---|---|---|---|---|---|---|---|
| 497 | Red Herring 6/1 | 29 | 2 | 1 | 14 | 17 | 3 | 4 | |
| 498 | Red Herring 6/1 | 30 | 3 | 1 | 17 | 12 | 3 | | |
| 499 | Red Herring 6/1 | 31 | 2 | 1 | 12 | 16 | 4 | 4 | |
| 500 | Red Herring 6/1 | 32 | 1 | 1 | 20 | 11 | 4 | 4 | |
| 501 | Red Herring 6/1 | 33 | 15 | 1 | | | | | |
| 502 | Red Herring 6/1 | 34 | 15 | 1 | | | | | |
| 503 | Red Herring 6/1 | 35 | 5 | 1 | 10 | 13 | 3 | 4 | |
| 504 | Red Herring 6/1 | 36 | 3 | 1 | 20 | 12 | 7 | | |
| 505 | Red Herring 6/1 | 37 | 3 | 1 | 25 | 20 | 10 | | |
| 506 | Red Herring 6/1 | 38 | 5 | 1 | 21 | 16 | 9 | | |
| 507 | Red Herring 6/1 | 39 | 6 | 2 | 50 | 47 | 25 | 3 | 2 |
| 508 | Red Herring 6/1 | 40 | 1 | 1 | 43 | 25 | 14 | 4 | |
| 509 | Red Herring 6/1 | 41 | 2 | 1 | 19 | 16 | 4 | | |
| 510 | Red Herring 6/1 | 42 | 1 | 1 | 27 | 30 | 7 | 4 | |
| 511 | Red Herring 6/1 | 43 | 5 | 1 | 35 | 20 | 10 | 4 | |
| 512 | Red Herring 6/1 | 44 | 3 | 1 | 42 | 33 | 16 | 3 | 2 |
| 513 | Red Herring 6/1 | 45 | 1 | 1 | 20 | 19 | 5 | 4 | |
| 514 | Red Herring 6/1 | 46 | 3 | 2 | 18 | 11 | 10 | | |
| 515 | Red Herring 6/1 | 47 | 2 | 1 | 8 | 12 | 3 | 4 | |
| 516 | Red Herring 6/1 | 48 | 2 | 1 | 16 | 18 | 4 | 4 | |
| 517 | Red Herring 6/1 | 49 | 1 | 1 | 65 | 25 | 20 | | |
| 518 | Red Herring 6/1 | 50 | 1 | 2 | 20 | 18 | 6 | | |
| 519 | Red Herring 6/1 | 51 | 6 | 2 | 43 | 33 | 28 | | |
| 520 | Red Herring 6/1 | 52 | 2 | 1 | 17 | 23 | 8 | 4 | |
| 521 | Red Herring 6/1 | 53 | 2 | 2 | 16 | 20 | 8 | 4 | |
| 522 | Red Herring 6/1 | 54 | 2 | 1 | 23 | 20 | 5 | 4 | |
| 523 | Red Herring 6/1 | 55 | 1 | 1 | 23 | 28 | 8 | 4 | |
| 524 | Red Herring 6/1 | 56 | 3 | 1 | 17 | 7 | 3 | 4 | |
| 525 | Red Herring 6/1 | 57 | 1 | 1 | 15 | 6 | 3 | 4 | |
| 526 | Red Herring 6/1 | 58 | 2 | 1 | 22 | 20 | 5 | 3 | 2 |
| 527 | Red Herring 6/1 | 59 | 1 | 1 | 15 | 20 | 3 | 4 | |
| 528 | Red Herring 6/1 | 60 | 4 | 1 | 26 | 13 | 6 | 4 | |
| 529 | Red Herring 6/1 | 61 | 3 | 1 | 26 | 16 | 8 | 4 | |
| 530 | Red Herring 6/1 | 62 | 3 | 1 | 43 | 30 | 10 | 3 | 2 |
| 531 | Red Herring 6/1 | 63 | 1 | 1 | 28 | 29 | 8 | 3 | 1 |
| 532 | Red Herring 6/1 | 64 | 1 | 1 | 33 | 18 | 10 | 4 | |
| 533 | Red Herring 6/1 | 65 | 2 | 1 | 30 | 16 | 6 | 4 | |
| 534 | Red Herring 6/1 | 66 | 1 | 1 | 17 | 26 | 6 | 4 | |
| 535 | Red Herring 6/1 | 67 | 3 | 1 | 40 | 17 | 11 | 3 | 2 |
| 536 | Red Herring 6/1 | 68 | 2 | 1 | 20 | 16 | 6 | 4 | |
| 537 | Red Herring 6/1 | 69 | 3 | 1 | 15 | 11 | 5 | 4 | |
| 538 | Red Herring 6/1 | 70 | 2 | 1 | 9 | 12 | 4 | 4 | |
| 539 | Red Herring 6/1 | 71 | 1 | 1 | 19 | 21 | 8 | 4 | |
| 540 | Red Herring 6/1 | 72 | 1 | 1 | 42 | 22 | 10 | 4 | |
| 541 | Red Herring 6/1 | 73 | 1 | 1 | 25 | 27 | 7 | 4 | |
| 542 | Red Herring 6/1 | 74 | 1 | 1 | 32 | 24 | 9 | 3 | 1 |
| 543 | Red Herring 6/1 | 75 | 2 | 1 | 21 | 27 | 10 | 3 | 2 |
| 544 | Red Herring 6/1 | 76 | 2 | 1 | 17 | 16 | 6 | 4 | |
| 545 | Red Herring 6/1 | 77 | 3 | 1 | 20 | 17 | 8 | 4 | |
| 546 | Red Herring 6/1 | 78 | 1 | 1 | 20 | 23 | 10 | 3 | 1 |
| 547 | Red Herring 6/1 | 79 | 1 | 1 | 20 | 22 | 8 | 4 | |
| 548 | Red Herring 6/1 | 80 | 5 | 1 | 18 | 12 | 5 | 4 | |
| 549 | Red Herring 6/1 | 81 | 5 | 1 | 16 | 10 | 3 | 4 | |
| 550 | Red Herring 6/1 | 82 | 5 | 1 | 16 | 11 | 5 | 4 | |
| 551 | Red Herring 6/1 | 83 | 2 | 1 | 16 | 22 | 6 | 4 | |
| 552 | Red Herring 6/1 | 84 | 1 | 1 | 19 | 16 | 6 | | |
| 553 | Red Herring 6/1 | 85 | 1 | 1 | 17 | 15 | 3 | 4 | |
| 554 | Red Herring 6/1 | 86 | 1 | 1 | 23 | 17 | 8 | 4 | |
| 555 | Red Herring 6/1 | 87 | 5 | 1 | 7 | 11 | 3 | 4 | |
| 556 | Red Herring 6/1 | 88 | 3 | 1 | 20 | 13 | 8 | 4 | |
| 557 | Red Herring 6/1 | 89 | 6 | 1 | 26 | 23 | 20 | 4 | |
| 558 | Red Herring 6/1 | 90 | 6 | 2 | 36 | 27 | 23 | 4 | |

Dorrigo Three Year Management Area Artefact Database

| Row | Site name | Art. no. | Art. type | Raw material | length | width | thickness | cortex | cortex type |
|---|---|---|---|---|---|---|---|---|---|
| 559 | Red Herring 6/1 | 91 | 5 | 1 | 14 | 16 | 4 | 4 | |
| 560 | Red Herring 6/1 | 92 | 7 | 2 | 16 | 8 | 5 | | |
| 561 | Red Herring 6/1 | 93 | 3 | 1 | 38 | 24 | 13 | | |
| 562 | Red Herring 6/1 | 94 | 3 | 1 | 28 | 16 | 15 | | |
| 563 | Red Herring 6/1 | 95 | 1 | 1 | 27 | 37 | 10 | | |
| 564 | Red Herring 6/1 | 96 | 1 | 1 | 21 | 30 | 9 | | |
| 565 | Red Herring 6/1 | 97 | 1 | 1 | 19 | 28 | 6 | 4 | |
| 566 | Red Herring 6/1 | 98 | 1 | 1 | 14 | 21 | 4 | 4 | |
| 567 | Red Herring 6/1 | 99 | 1 | 1 | 20 | 24 | 4 | 4 | |
| 568 | Red Herring 6/1 | 100 | 1 | 1 | 29 | 20 | 13 | 4 | |
| 569 | Red Herring 6/1 | 101 | 2 | 1 | 30 | 22 | 11 | | |
| 570 | Red Herring 6/1 | 102 | 1 | 1 | 35 | 48 | 12 | | |
| 571 | Red Herring 6/1 | 103 | 3 | 1 | 25 | 20 | 10 | | |
| 572 | Red Herring 6/1 | 104 | 6 | 1 | 45 | 33 | 17 | | |
| 573 | Red Herring 6/1 | 105 | 1 | 1 | 30 | 38 | 12 | | |
| 574 | Red Herring 6/1 | 106 | 1 | 1 | 35 | 25 | 10 | 4 | |
| 575 | Red Herring 6/1 | 107 | 3 | 1 | 37 | 14 | 12 | | |
| 576 | Red Herring 6/1 | 108 | 4 | 1 | 34 | 14 | 7 | | |
| 577 | Red Herring 6/1 | 109 | 3 | 1 | 24 | 23 | 9 | | |
| 578 | Red Herring 6/1 | 110 | 1 | 1 | 40 | 25 | 20 | 3 | 2 |
| 579 | Red Herring 6/1 | 111 | 1 | 2 | 15 | 9 | 6 | | |
| 580 | Red Herring 6/1 | 112 | 1 | 1 | 27 | 25 | 9 | | |
| 581 | Red Herring 6/1 | 113 | 1 | 1 | 20 | 16 | 8 | | |
| 582 | Red Herring 6/1 | 114 | 1 | 1 | 50 | 34 | 16 | 3 | 2 |
| 583 | Red Herring 6/1 | 115 | 1 | 4 | 25 | 32 | 11 | | |
| 584 | Red Herring 6/1 | 116 | 5 | 1 | 15 | 32 | 10 | | |
| 585 | Red Herring 6/1 | 117 | 3 | 1 | 38 | 27 | 12 | | |
| 586 | Red Herring 6/1 | 118 | 6 | 1 | 43 | 28 | 20 | | |
| 587 | Red Herring 6/1 | 119 | 1 | 1 | 30 | 65 | 12 | | |
| 588 | Red Herring 6/1 | 120 | 1 | 1 | 24 | 41 | 8 | | |
| 589 | Red Herring 6/1 | 121 | 1 | 1 | 32 | 24 | 12 | | |
| 590 | Red Herring 6/1 | 122 | 3 | 1 | 22 | 14 | 8 | | |
| 591 | Red Herring 6/1 | 123 | 1 | 1 | 25 | 33 | 7 | | |
| 592 | Red Herring 7/1 | 1 | 6 | 4 | 103 | 90 | 47 | 3 | 1 |
| 593 | Red Herring 7/1 | 2 | 1 | 1 | 25 | 20 | 9 | 4 | |
| 594 | Red Herring 7/1 | 3 | 1 | 1 | 13 | 18 | 7 | | |
| 595 | Red Herring 7/1 | 4 | 1 | 1 | 40 | 18 | 13 | | |
| 596 | Red Herring 7/1 | 5 | 1 | 1 | 32 | 30 | 12 | | |
| 597 | Red Herring 8/1 | 1 | 1 | 1 | 42 | 36 | 10 | 4 | |
| 598 | Red Herring 8/1 | 2 | 1 | 1 | 28 | 27 | 10 | 4 | |
| 599 | Red Herring 8/1 | 3 | 19 | 1 | 175 | 100 | 48 | 3 | 2 |
| 600 | Red Herring 8/1 | 4 | 4 | 1 | 57 | 26 | 10 | 4 | |
| 601 | Red Herring 8/2 | 1 | 6 | 4 | 90 | 50 | 48 | 3 | 2 |
| 602 | Red Herring 8/2 | 2 | 1 | 1 | 30 | 52 | 9 | 4 | |
| 603 | Red Herring 8/2 | 3 | 4 | 1 | 34 | 15 | 6 | 4 | |
| 604 | Red Herring 8/2 | 4 | 3 | 1 | 42 | 30 | 15 | 3 | 2 |
| 605 | Red Herring 8/2 | 5 | 1 | 1 | 15 | 18 | 5 | 4 | |
| 606 | Red Herring 8/2 | 6 | 5 | 2 | 12 | 10 | 4 | 4 | |
| 607 | Stockyard 1/1 | 1 | 5 | 5 | 15 | 18 | 5 | 4 | |
| 608 | Stockyard 1/1 | 2 | 4 | 1 | 52 | 28 | 7 | 4 | |
| 609 | Stockyard 1/2 | 1 | 1 | 1 | 25 | 42 | 6 | 4 | |
| 610 | Stockyard 1/3 | 1 | 1 | 1 | 27 | 22 | 6 | 3 | 2 |
| 611 | Stockyard 1/3 | 2 | 2 | 1 | 35 | 25 | 13 | 3 | 2 |
| 612 | Stockyard 1/3 | 3 | 1 | 1 | 35 | 20 | 5 | 4 | |
| 613 | Stockyard 1/3 | 4 | 1 | 1 | 27 | 14 | 6 | 3 | 2 |
| 614 | Stockyard 3/1 | 1 | 5 | 1 | 13 | 18 | 7 | 4 | |
| 615 | Stockyard 3/1 | 2 | 1 | 4 | 22 | 19 | 6 | 3 | 2 |
| 616 | Stockyard 3/1 | 3 | 6 | 4 | 52 | 47 | 19 | 3 | 1 |
| 617 | Stockyard 3/1 | 4 | 5 | 2 | 23 | 33 | 10 | 4 | |
| 618 | Stockyard 3/1 | 5 | 6 | 1 | 145 | 130 | 70 | 3 | 2 |
| 619 | Stockyard 3/1 | 6 | 1 | 1 | 33 | 32 | 9 | | |
| 620 | Stockyard 3/1 | 7 | 1 | 1 | 20 | 17 | 3 | 4 | |

Dorrigo Three Year Management Area Artefact Database

| Row | Site name | Art. no. | Art. type | Raw material | length | width | thickness | cortex | cortex type |
|---|---|---|---|---|---|---|---|---|---|
| 621 | Stockyard 3/1 | 8 | 14 | 1 | 19 | 12 | 8 | 4 | |
| 622 | Stockyard 3/1 | 9 | 3 | 1 | 27 | 20 | 13 | | |
| 623 | Stockyard 3/1 | 10 | 1 | 1 | 52 | 37 | 12 | | |
| 624 | Stockyard 3/1 | 11 | 1 | 1 | 13 | 13 | 3 | | |
| 625 | Stockyard 3/1 | 12 | 1 | 1 | 25 | 15 | 5 | 3 | 2 |
| 626 | Stockyard 3/1 | 13 | 1 | 1 | 22 | 12 | 5 | 4 | |
| 627 | Stockyard 3/1 | 14 | 1 | 1 | 25 | 15 | 4 | 4 | |
| 628 | Stockyard 3/1 | 15 | 1 | 1 | 22 | 12 | 3 | 4 | |
| 629 | Stockyard 3/1 | 16 | 2 | 1 | 35 | 15 | 7 | 3 | 2 |
| 630 | Stockyard 3/1 | 17 | 17 | 1 | 48 | 18 | 7 | 4 | |
| 631 | Stockyard 3/1 | 18 | 3 | 1 | 31 | 19 | 10 | 3 | 2 |
| 632 | Stockyard 3/1 | 19 | 1 | 1 | 38 | 28 | 7 | 3 | 2 |
| 633 | Stockyard 3/1 | 20 | 6 | 1 | 34 | 33 | 10 | 3 | 2 |
| 634 | Stockyard 3/1 | 21 | 3 | 1 | 37 | 17 | 8 | | |
| 635 | Stockyard 3/1 | 22 | 1 | 1 | 42 | 28 | 14 | 4 | |
| 636 | Stockyard 3/1 | 23 | 1 | 1 | 20 | 16 | 5 | 3 | 2 |
| 637 | Stockyard 3/1 | 24 | 1 | 1 | 22 | 19 | 4 | | |
| 638 | Stockyard 3/1 | 25 | 3 | 1 | 25 | 13 | 5 | 3 | 2 |
| 639 | Stockyard 3/1 | 26 | 1 | 1 | 42 | 24 | 8 | 3 | 2 |
| 640 | Stockyard 3/1 | 27 | 2 | 1 | 37 | 25 | 7 | 3 | 2 |
| 641 | Stockyard 3/1 | 28 | 1 | 1 | 32 | 33 | 10 | 3 | 2 |
| 642 | Stockyard 3/1 | 29 | 3 | 1 | 32 | 17 | 5 | | |
| 643 | Stockyard 3/1 | 30 | 2 | 1 | 22 | 22 | 7 | 3 | 2 |
| 644 | Stockyard 3/1 | 31 | 1 | 1 | 21 | 31 | 8 | 4 | |
| 645 | Stockyard 3/1 | 32 | 3 | 1 | 30 | 20 | 10 | | |
| 646 | Stockyard 3/1 | 33 | 2 | 1 | 23 | 35 | 8 | 3 | 2 |
| 647 | Stockyard 3/1 | 34 | 1 | 1 | 30 | 20 | 9 | 3 | 2 |
| 648 | Stockyard 3/1 | 35 | 2 | 1 | 25 | 23 | 9 | 3 | 2 |
| 649 | Stockyard 3/1 | 36 | 2 | 1 | 28 | 18 | 5 | 4 | |
| 650 | Stockyard 3/1 | 37 | 3 | 1 | 25 | 15 | 8 | 3 | 2 |
| 651 | Stockyard 3/1 | 38 | 1 | 1 | 11 | 15 | 4 | 4 | |
| 652 | Stockyard 3/1 | 39 | 1 | 1 | 11 | 15 | 4 | 4 | |
| 653 | Stockyard 3/1 | 40 | 2 | 1 | 13 | 15 | 4 | 4 | |
| 654 | Stockyard 3/1 | 41 | 4 | 1 | 16 | 8 | 3 | 3 | 2 |
| 655 | Stockyard 3/1 | 42 | 1 | 1 | 19 | 10 | 5 | 3 | 2 |
| 656 | Stockyard 3/1 | 43 | 1 | 1 | 11 | 11 | 3 | 4 | |
| 657 | Stockyard 3/1 | 44 | 1 | 1 | 17 | 13 | 3 | 4 | |
| 658 | Stockyard 3/1 | 45 | 22 | 1 | 9 | 12 | 5 | 4 | |
| 659 | Stockyard 3/1 | 46 | 6 | 2 | 27 | 20 | 11 | | |
| 660 | Stockyard 3/1 | 47 | 1 | 3 | 12 | 10 | 2 | 4 | |
| 661 | Stockyard 3/1 | 48 | 15 | 3 | | | | | |
| 662 | Stockyard 3/1 | 49 | 23 | 3 | 12 | 7 | 2 | 4 | |
| 663 | Stockyard 3/1 | 50 | 1 | 3 | 15 | 8 | 3 | 4 | |
| 664 | Stockyard 3/1 | 51 | 1 | 1 | 45 | 25 | 12 | 3 | 2 |
| 665 | Stockyard 3/1 | 52 | 6 | 1 | 52 | 30 | 10 | 3 | 2 |
| 666 | Stockyard 3/1 | 53 | 1 | 1 | 52 | 26 | 11 | 3 | 2 |
| 667 | Stockyard 3/1 | 54 | 1 | 6 | 30 | 19 | 7 | 3 | 1 |
| 668 | Stockyard 3/1 | 55 | 1 | 1 | 23 | 20 | 7 | 3 | 2 |
| 669 | Stockyard 3/1 | 56 | 6 | 1 | 42 | 33 | 15 | 3 | 2 |
| 670 | Stockyard 3/1 | 57 | 1 | 1 | 40 | 40 | 11 | 3 | 2 |
| 671 | Stockyard 3/1 | 58 | 1 | 1 | 55 | 30 | 14 | 3 | 2 |
| 672 | Stockyard 3/1 | 59 | 1 | 1 | 42 | 31 | 9 | 3 | 2 |
| 673 | Stockyard 3/1 | 60 | 1 | 1 | 37 | 43 | 12 | 4 | |
| 674 | Stockyard 3/1 | 61 | 3 | 1 | 42 | 33 | 11 | 3 | 2 |
| 675 | Stockyard 3/1 | 62 | 1 | 1 | 27 | 26 | 6 | 4 | |
| 676 | Stockyard 3/1 | 63 | 1 | 1 | 24 | 20 | 7 | 4 | |
| 677 | Stockyard 3/1 | 64 | 7 | 1 | 28 | 13 | 5 | 3 | 2 |
| 678 | Stockyard 3/1 | 65 | 2 | 1 | 23 | 25 | 4 | 4 | |
| 679 | Stockyard 3/1 | 66 | 1 | 1 | 30 | 23 | 7 | 4 | |
| 680 | Stockyard 3/1 | 67 | 3 | 1 | 22 | 12 | 6 | | |
| 681 | Stockyard 3/1 | 68 | 14 | 1 | 20 | 14 | 4 | 4 | |
| 682 | Stockyard 3/1 | 69 | 14 | 2 | 18 | 12 | 5 | 4 | |

# Dorrigo Three Year Management Area Artefact Database

| Row | Site name | Art. no. | Art. type | Raw material | length | width | thickness | cortex | cortex type |
|---|---|---|---|---|---|---|---|---|---|
| 683 | Stockyard 3/1 | 70 | 6 | 1 | 32 | 30 | 15 | 3 | 2 |
| 684 | Stockyard 3/1 | 71 | 1 | 1 | 22 | 14 | 7 | | |
| 685 | Stockyard 3/1 | 72 | 6 | 1 | 39 | 25 | 15 | 3 | 2 |
| 686 | Stockyard 3/1 | 73 | 1 | 1 | 45 | 35 | 11 | | |
| 687 | Stockyard 3/1 | 74 | 6 | 1 | 55 | 45 | 23 | 3 | 2 |
| 688 | Stockyard 3/1 | 75 | 2 | 1 | 30 | 34 | 7 | 3 | 2 |
| 689 | Stockyard 3/1 | 76 | 1 | 1 | 25 | 28 | 7 | 4 | |
| 690 | Stockyard 3/1 | 77 | 1 | 1 | 30 | 22 | 3 | 3 | 2 |
| 691 | Stockyard 3/1 | 78 | 6 | 1 | 29 | 22 | 16 | 3 | 2 |
| 692 | Stockyard 3/1 | 79 | 1 | 1 | 20 | 44 | 8 | 4 | |
| 693 | Stockyard 3/1 | 80 | 1 | 1 | 21 | 30 | 5 | 3 | 2 |
| 694 | Stockyard 3/1 | 81 | 3 | 1 | 32 | 15 | 7 | 3 | 2 |
| 695 | Stockyard 3/1 | 82 | 1 | 1 | 32 | 20 | 4 | 4 | |
| 696 | Stockyard 3/1 | 83 | 2 | 1 | 33 | 21 | 6 | 4 | |
| 697 | Stockyard 3/1 | 84 | 1 | 1 | 30 | 35 | 8 | 4 | |
| 698 | Stockyard 3/1 | 85 | 3 | 1 | 44 | 25 | 12 | 4 | |
| 699 | Stockyard 3/1 | 86 | 3 | 1 | 22 | 17 | 3 | 4 | |
| 700 | Stockyard 3/1 | 87 | 2 | 1 | 23 | 20 | 5 | 3 | 2 |
| 701 | Stockyard 3/1 | 88 | 1 | 1 | 37 | 24 | 7 | 3 | 2 |
| 702 | Stockyard 3/1 | 89 | 1 | 1 | 44 | 36 | 10 | 3 | 2 |
| 703 | Stockyard 3/1 | 90 | 2 | 1 | 25 | 25 | 12 | 4 | |
| 704 | Stockyard 3/1 | 91 | 3 | 1 | 30 | 20 | 6 | | |
| 705 | Stockyard 3/1 | 92 | 1 | 1 | 30 | 20 | 7 | 4 | |
| 706 | Stockyard 3/1 | 93 | 1 | 1 | 15 | 15 | 3 | 4 | |
| 707 | Stockyard 3/1 | 94 | 3 | 1 | 28 | 20 | 5 | 4 | |
| 708 | Stockyard 3/1 | 95 | 1 | 1 | 17 | 13 | 3 | 4 | |
| 709 | Stockyard 3/1 | 96 | 3 | 1 | 12 | 8 | 3 | 4 | |
| 710 | Stockyard 3/1 | 97 | 1 | 1 | 14 | 25 | 7 | 4 | |
| 711 | Stockyard 3/1 | 98 | 3 | 1 | 19 | 10 | 6 | 3 | 2 |
| 712 | Stockyard 3/1 | 99 | 3 | 1 | 10 | 11 | 8 | 3 | 2 |
| 713 | Stockyard 3/1 | 100 | 3 | 1 | 19 | 15 | 4 | 4 | |
| 714 | Stockyard 3/1 | 101 | 1 | 1 | 17 | 10 | 4 | 4 | |
| 715 | Stockyard 3/1 | 102 | 3 | 1 | 19 | 16 | 3 | 4 | |
| 716 | Stockyard 3/1 | 103 | 6 | 2 | 35 | 25 | 12 | 2 | 2 |
| 717 | Stockyard 3/1 | 104 | 6 | 2 | 29 | 23 | 12 | 2 | 2 |
| 718 | Stockyard 3/1 | 105 | 1 | 2 | 30 | 23 | 11 | 3 | 2 |
| 719 | Stockyard 3/1 | 106 | 1 | 3 | 13 | 12 | 4 | 4 | |
| 720 | Stockyard 3/1 | 107 | 3 | 3 | 12 | 10 | 3 | 4 | |
| 721 | Stockyard 3/1 | 108 | 6 | 2 | 22 | 13 | 7 | 3 | 2 |
| 722 | Stockyard 3/1 | 109 | 4 | 3 | 10 | 3 | 1 | 4 | |
| 723 | Stockyard 3/1 | 110 | 14 | 1 | 19 | 12 | 6 | 4 | |
| 724 | Stockyard 3/1 | 111 | 14 | 1 | 23 | 10 | 5 | 4 | |
| 725 | Stockyard 3/1 | 112 | 14 | 1 | 22 | 12 | 6 | 4 | |
| 726 | Stockyard 4/1 | 1 | 3 | 1 | 20 | 13 | 5 | | |
| 727 | Stockyard 4/1 | 2 | 6 | 1 | 75 | 50 | 20 | 3 | 2 |
| 728 | Stockyard 4/1 | 3 | 1 | 1 | 35 | 25 | 12 | 4 | |
| 729 | Stockyard 4/1 | 4 | 7 | 2 | 16 | 9 | 7 | 4 | |
| 730 | Stockyard 4/1 | 5 | 7 | 1 | 47 | 26 | 18 | 3 | 2 |
| 731 | Stockyard 4/1 | 6 | 1 | 1 | 15 | 10 | 4 | 4 | |
| 732 | Stockyard 4/1 | 7 | 4 | 1 | 15 | 7 | 6 | 4 | |
| 733 | Stockyard 4/1 | 8 | 1 | 1 | 21 | 25 | 7 | 3 | 2 |
| 734 | Stockyard 4/1 | 9 | 1 | 1 | 16 | 19 | 3 | 4 | |
| 735 | Stockyard 4/1 | 10 | 1 | 3 | 11 | 8 | 4 | 4 | |
| 736 | Stockyard 4/1 | 11 | 1 | 2 | 16 | 8 | 6 | 3 | 2 |
| 737 | Stockyard 4/1 | 12 | 15 | 1 | | | | | |
| 738 | Stockyard 4/1 | 13 | 3 | 1 | 35 | 16 | 14 | 3 | 2 |
| 739 | Stockyard 4/1 | 14 | 1 | 1 | 23 | 15 | 10 | 3 | 2 |
| 740 | Stockyard 4/1 | 15 | 4 | 1 | 13 | 10 | 3 | 3 | 2 |
| 741 | Stockyard 4/1 | 16 | 4 | 1 | 37 | 15 | 8 | 4 | |
| 742 | Stockyard 4/1 | 17 | 5 | 1 | 13 | 16 | 6 | 3 | 2 |
| 743 | Stockyard 4/1 | 18 | 1 | 1 | 11 | 10 | 3 | 4 | |
| 744 | Stockyard 4/1 | 19 | 2 | 1 | 7 | 12 | 3 | 4 | |

# Dorrigo Three Year Management Area Artefact Database

| Row | Site name | Art. no. | Art. type | Raw material | length | width | thickness | cortex | cortex type |
|---|---|---|---|---|---|---|---|---|---|
| 745 | Stockyard 4/1 | 20 | 15 | 1 | | | | | |
| 746 | Stockyard 4/1 | 21 | 1 | 1 | 15 | 11 | 3 | 3 | 2 |
| 747 | Stockyard 4/1 | 22 | 3 | 1 | 13 | 10 | 3 | 3 | 2 |
| 748 | Stockyard 4/1 | 23 | 1 | 1 | 26 | 23 | 11 | 3 | 2 |
| 749 | Stockyard 4/1 | 24 | 2 | 1 | 11 | 14 | 3 | 4 | |
| 750 | Stockyard 4/1 | 25 | 5 | 1 | 16 | 12 | 3 | 4 | |
| 751 | Stockyard 4/1 | 26 | 1 | 2 | 12 | 8 | 4 | 4 | |
| 752 | Stockyard 4/1 | 27 | 2 | 1 | 23 | 13 | 5 | 4 | |
| 753 | Stockyard 4/1 | 28 | 2 | 1 | 22 | 17 | 5 | 4 | |
| 754 | Stockyard 4/1 | 29 | 3 | 1 | 15 | 10 | 5 | 4 | |
| 755 | Stockyard 4/1 | 30 | 4 | 2 | 10 | 3 | 2 | 4 | |
| 756 | Stockyard 4/1 | 31 | 1 | 1 | 15 | 11 | 4 | 3 | 2 |
| 757 | Stockyard 4/1 | 32 | 6 | 2 | 22 | 10 | 8 | | |
| 758 | Stockyard 4/1 | 33 | 2 | 2 | 11 | 8 | 4 | 4 | |
| 759 | Stockyard 4/1 | 34 | 3 | 2 | 11 | 8 | 4 | 4 | |
| 760 | Stockyard 4/1 | 35 | 1 | 1 | 10 | 18 | 4 | 3 | 2 |
| 761 | Stockyard 4/1 | 36 | 4 | 1 | 19 | 9 | 3 | 4 | |
| 762 | Stockyard 4/1 | 37 | 2 | 1 | 12 | 11 | 5 | 3 | 2 |
| 763 | Stockyard 4/1 | 38 | 14 | 1 | 16 | 7 | 6 | 4 | |
| 764 | Stockyard 4/1 | 39 | 2 | 2 | 10 | 16 | 6 | | |
| 765 | Stockyard 4/1 | 40 | 3 | 1 | 14 | 7 | 4 | 3 | 2 |
| 766 | Stockyard 4/1 | 41 | 1 | 1 | 17 | 17 | 7 | 3 | 2 |
| 767 | Stockyard 4/1 | 42 | 2 | 1 | 18 | 25 | 8 | 3 | 2 |
| 768 | Stockyard 4/1 | 43 | 5 | 1 | 6 | 13 | 3 | 4 | |
| 769 | Stockyard 4/1 | 44 | 1 | 1 | 17 | 11 | 3 | 3 | 2 |
| 770 | Stockyard 4/1 | 45 | 1 | 1 | 29 | 15 | 8 | 4 | |
| 771 | Stockyard 4/1 | 46 | 3 | 1 | 30 | 20 | 12 | 3 | 2 |
| 772 | Stockyard 4/1 | 47 | 6 | 1 | 41 | 25 | 18 | 4 | |
| 773 | Stockyard 4/1 | 48 | 3 | 2 | 14 | 13 | 8 | | |
| 774 | Stockyard 4/1 | 49 | 3 | 2 | 16 | 11 | 10 | | |
| 775 | Stockyard 4/1 | 50 | 3 | 2 | 16 | 12 | 8 | | |
| 776 | Stockyard 4/1 | 51 | 5 | 2 | 15 | 9 | 4 | 4 | |
| 777 | Stockyard 4/1 | 52 | 1 | 1 | 32 | 25 | 8 | 3 | 2 |
| 778 | Stockyard 4/1 | 53 | 3 | 1 | 31 | 11 | 7 | 4 | |
| 779 | Stockyard 4/1 | 54 | 2 | 1 | 16 | 11 | 5 | 4 | |
| 780 | Stockyard 4/1 | 55 | 4 | 1 | 20 | 8 | 5 | 4 | |
| 781 | Stockyard 4/1 | 56 | 1 | 1 | 17 | 20 | 9 | 3 | 2 |
| 782 | Stockyard 4/1 | 57 | 1 | 1 | 32 | 28 | 12 | | |
| 783 | Stockyard 4/1 | 58 | 3 | 1 | 17 | 16 | 9 | 3 | 2 |
| 784 | Stockyard 4/1 | 59 | 1 | 1 | 20 | 12 | 4 | 4 | |
| 785 | Stockyard 4/1 | 60 | 1 | 2 | 25 | 18 | 12 | 3 | 2 |
| 786 | Stockyard 4/1 | 61 | 2 | 1 | 20 | 17 | 9 | 4 | |
| 787 | Stockyard 4/1 | 62 | 3 | 1 | 20 | 19 | 8 | 3 | 2 |
| 788 | Stockyard 4/1 | 63 | 2 | 1 | 10 | 11 | 2 | 4 | |
| 789 | Stockyard 4/1 | 64 | 7 | 1 | 42 | 20 | 16 | 3 | 2 |
| 790 | Stockyard 4/1 | 65 | 2 | 1 | 22 | 13 | 5 | 4 | |
| 791 | Stockyard 4/1 | 66 | 1 | 2 | 11 | 9 | 4 | 3 | 2 |
| 792 | Stockyard 4/1 | 67 | 1 | 1 | 18 | 18 | 7 | 4 | |
| 793 | Stockyard 4/1 | 68 | 2 | 1 | 15 | 12 | 5 | 4 | |
| 794 | Stockyard 4/1 | 69 | 2 | 1 | 19 | 19 | 4 | 4 | |
| 795 | Stockyard 4/1 | 70 | 2 | 1 | 13 | 26 | 7 | 3 | 2 |
| 796 | Stockyard 4/1 | 71 | 2 | 1 | 16 | 17 | 8 | 3 | 2 |
| 797 | Stockyard 4/1 | 72 | 1 | 1 | 32 | 23 | 12 | 3 | 2 |
| 798 | Stockyard 4/1 | 73 | 2 | 1 | 17 | 29 | 10 | | |
| 799 | Stockyard 4/1 | 74 | 2 | 1 | 19 | 28 | 5 | 4 | |
| 800 | Stockyard 4/1 | 75 | 2 | 2 | 10 | 12 | 3 | 4 | |
| 801 | Stockyard 4/1 | 76 | 1 | 2 | 9 | 15 | 4 | | |
| 802 | Stockyard 4/1 | 77 | 1 | 2 | 25 | 28 | 13 | 3 | 2 |
| 803 | Stockyard 4/1 | 78 | 16 | 1 | 105 | 60 | 40 | 3 | 2 |
| 804 | Stockyard 4/1 | 79 | 1 | 2 | 13 | 10 | 3 | 4 | |
| 805 | Stockyard 5/1 | 1 | 1 | 1 | 13 | 14 | 3 | 4 | |
| 806 | Stockyard 5/1 | 2 | 1 | 8 | 12 | 10 | 4 | 4 | |

# Dorrigo Three Year Management Area Artefact Database

| Row | Site name | Art. no. | Art. type | Raw material | length | width | thickness | cortex | cortex type |
|---|---|---|---|---|---|---|---|---|---|
| 807 | Stockyard 5/1 | 3 | 1 | 1 | 23 | 38 | 10 | 3 | 2 |
| 808 | Stockyard 5/1 | 4 | 14 | 1 | 18 | 12 | 4 | 4 | |
| 809 | Stockyard 5/1 | 5 | 1 | 1 | 15 | 11 | 4 | 4 | |
| 810 | Stockyard 5/1 | 6 | 1 | 1 | 62 | 40 | 20 | 4 | |
| 811 | Stockyard 5/1 | 7 | 13 | 6 | 160 | 110 | 60 | 0 | 1 |
| 812 | Stockyard 5/1 | 8 | 1 | 1 | 40 | 17 | 6 | 4 | |
| 813 | Stockyard 5/1 | 9 | 2 | 1 | 12 | 15 | 5 | 4 | |
| 814 | Stockyard 5/1 | 10 | 2 | 1 | 22 | 29 | 13 | 4 | |
| 815 | Stockyard 5/2 | 1 | 3 | 1 | 25 | 16 | 7 | 3 | 2 |
| 816 | Stockyard 5/2 | 2 | 1 | 1 | 22 | 20 | 12 | 3 | 2 |
| 817 | Stockyard 5/2 | 3 | 2 | 1 | 23 | 31 | 11 | 4 | |
| 818 | Stockyard 6/1 | 1 | 3 | 1 | 22 | 16 | 11 | 3 | 2 |
| 819 | Stockyard 6/1 | 2 | 1 | 1 | 23 | 44 | 16 | 4 | |
| 820 | Stockyard 6/1 | 3 | 2 | 1 | 28 | 25 | 10 | 4 | |
| 821 | Stockyard 6/1 | 4 | 1 | 1 | 33 | 29 | 15 | 3 | 2 |
| 822 | Stockyard 6/1 | 5 | 2 | 2 | 8 | 12 | 3 | 4 | |
| 823 | Stockyard 6/1 | 6 | 1 | 1 | 8 | 12 | 4 | 4 | |
| 824 | Stockyard 6/1 | 7 | 4 | 1 | 19 | 7 | 3 | 4 | |
| 825 | Stockyard 6/1 | 8 | 1 | 1 | 12 | 13 | 4 | 4 | |
| 826 | Stockyard 6/1 | 9 | 5 | 1 | 17 | 13 | 7 | 4 | |
| 827 | Stockyard 6/1 | 10 | 3 | 1 | 15 | 9 | 4 | 4 | |
| 828 | Stockyard 6/1 | 11 | 2 | 1 | 13 | 12 | 5 | 4 | |
| 829 | Stockyard 6/1 | 12 | 2 | 1 | 8 | 13 | 3 | 3 | 2 |
| 830 | Stockyard 6/1 | 13 | 1 | 1 | 16 | 14 | 4 | 4 | |
| 831 | Stockyard 6/1 | 14 | 1 | 1 | 13 | 6 | 3 | 4 | |
| 832 | Stockyard 6/1 | 15 | 15 | 1 | | | | | |
| 833 | Stockyard 6/1 | 16 | 2 | 1 | 9 | 8 | 3 | 4 | |
| 834 | Stockyard 6/1 | 17 | 15 | 1 | | | | | |
| 835 | Stockyard 6/1 | 18 | 15 | 1 | | | | | |
| 836 | Stockyard 6/1 | 19 | 1 | 1 | 6 | 18 | 3 | 4 | |
| 837 | Stockyard 6/1 | 20 | 1 | 1 | 20 | 27 | 9 | 4 | |
| 838 | Stockyard 6/1 | 21 | 2 | 1 | 22 | 13 | 7 | 4 | |
| 839 | Stockyard 6/1 | 22 | 2 | 1 | 9 | 13 | 4 | 4 | |
| 840 | Stockyard 6/1 | 23 | 2 | 1 | 14 | 13 | 5 | 4 | |
| 841 | Stockyard 6/1 | 24 | 15 | 1 | | | | | |
| 842 | Stockyard 6/1 | 25 | 15 | 1 | | | | | |
| 843 | Stockyard 6/1 | 26 | 15 | 3 | | | | | |
| 844 | Stockyard 6/1 | 27 | 15 | 3 | | | | | |
| 845 | Stockyard 6/1 | 28 | 3 | 1 | 13 | 10 | 4 | 4 | |
| 846 | Stockyard 6/1 | 29 | 1 | 1 | 16 | 11 | 3 | 4 | |
| 847 | Stockyard 6/1 | 30 | 3 | 1 | 18 | 12 | 7 | 3 | 2 |
| 848 | Stockyard 6/1 | 31 | 1 | 1 | 15 | 11 | 5 | 4 | |
| 849 | Stockyard 6/1 | 32 | 5 | 1 | 10 | 12 | 3 | 4 | |
| 850 | Stockyard 6/1 | 33 | 2 | 1 | 12 | 20 | 8 | 4 | |
| 851 | Stockyard 6/1 | 34 | 15 | 1 | | | | | |
| 852 | Stockyard 6/1 | 35 | 15 | 1 | | | | | |
| 853 | Stockyard 6/1 | 36 | 15 | 1 | | | | | |
| 854 | Stockyard 6/1 | 37 | 2 | 1 | 11 | 6 | 3 | 4 | |
| 855 | Stockyard 6/1 | 38 | 4 | 1 | 12 | 8 | 3 | 4 | |
| 856 | Stockyard 6/1 | 39 | 15 | 1 | | | | | |
| 857 | Stockyard 6/1 | 40 | 3 | 1 | 15 | 12 | 5 | 4 | |
| 858 | Stockyard 6/1 | 41 | 2 | 1 | 10 | 15 | 5 | 3 | 2 |
| 859 | Stockyard 6/1 | 42 | 5 | 1 | 9 | 11 | 3 | 4 | |
| 860 | Stockyard 6/1 | 43 | 1 | 5 | 12 | 10 | 4 | 4 | |
| 861 | Stockyard 6/1 | 44 | 3 | 1 | 21 | 11 | 6 | 4 | |
| 862 | Stockyard 6/1 | 45 | 1 | 1 | 30 | 22 | 9 | 4 | |
| 863 | Stockyard 6/1 | 46 | 1 | 1 | 27 | 13 | 6 | 3 | 2 |
| 864 | Stockyard 6/1 | 47 | 15 | 1 | | | | | |
| 865 | Stockyard 6/1 | 48 | 15 | 1 | | | | | |
| 866 | Stockyard 6/1 | 49 | 15 | 1 | | | | | |
| 867 | Stockyard 6/1 | 50 | 15 | 1 | | | | | |
| 868 | Stockyard 6/1 | 51 | 4 | 1 | 16 | 8 | 2 | 4 | |

# Dorrigo Three Year Management Area Artefact Database

| Row | Site name | Art. no. | Art. type | Raw material | length | width | thickness | cortex | cortex type |
|---|---|---|---|---|---|---|---|---|---|
| 869 | Stockyard 6/1 | 52 | 1 | 1 | 20 | 13 | 11 | 3 | 2 |
| 870 | Stockyard 6/1 | 53 | 1 | 1 | 13 | 11 | 3 | 3 | 2 |
| 871 | Stockyard 6/1 | 54 | 3 | 1 | 25 | 12 | 7 | 4 | |
| 872 | Stockyard 6/1 | 55 | 15 | 1 | | | | | |
| 873 | Stockyard 6/1 | 56 | 15 | 1 | | | | | |
| 874 | Stockyard 6/1 | 57 | 4 | 2 | 15 | 10 | 4 | 4 | |
| 875 | Stockyard 6/1 | 58 | 1 | 2 | 11 | 13 | 5 | | |
| 876 | Stockyard 6/1 | 59 | 1 | 2 | 11 | 8 | 4 | | |
| 877 | Stockyard 6/1 | 60 | 1 | 1 | 13 | 11 | 3 | 4 | |
| 878 | Stockyard 6/1 | 61 | 4 | 1 | 23 | 14 | 7 | 3 | 2 |
| 879 | Stockyard 6/1 | 62 | 15 | 1 | | | | | |
| 880 | Stockyard 6/1 | 63 | 1 | 1 | 12 | 8 | 4 | 4 | |
| 881 | Stockyard 6/1 | 64 | 15 | 2 | | | | | |
| 882 | Stockyard 6/1 | 65 | 21 | 3 | 15 | 12 | 8 | | |
| 883 | Stockyard 6/1 | 66 | 6 | 2 | 20 | 18 | 10 | 4 | |
| 884 | Stockyard 6/1 | 67 | 1 | 1 | 19 | 17 | 7 | 4 | |
| 885 | Stockyard 6/1 | 68 | 1 | 1 | 18 | 12 | 3 | 4 | |
| 886 | Stockyard 6/1 | 69 | 15 | 2 | | | | | |
| 887 | Stockyard 6/1 | 70 | 15 | 2 | | | | | |
| 888 | Stockyard 6/1 | 71 | 15 | 1 | | | | | |
| 889 | Stockyard 6/1 | 72 | 15 | 1 | | | | | |
| 890 | Stockyard 6/1 | 73 | 15 | 1 | | | | | |
| 891 | Stockyard 6/1 | 74 | 15 | 1 | | | | | |
| 892 | Stockyard 6/1 | 75 | 2 | 1 | 5 | 13 | 3 | 4 | |
| 893 | Stockyard 6/1 | 76 | 1 | 1 | 13 | 10 | 4 | 3 | 2 |
| 894 | Stockyard 6/1 | 77 | 3 | 1 | 18 | 14 | 11 | 3 | 2 |
| 895 | Stockyard 6/1 | 78 | 1 | 1 | 19 | 16 | 7 | 3 | 2 |
| 896 | Stockyard 6/1 | 79 | 1 | 1 | 20 | 20 | 9 | 3 | 2 |
| 897 | Stockyard 6/1 | 80 | 1 | 1 | 22 | 23 | 9 | 4 | |
| 898 | Stockyard 6/1 | 81 | 3 | 1 | 17 | 14 | 10 | 4 | |
| 899 | Stockyard 6/1 | 82 | 15 | 1 | | | | | |
| 900 | Stockyard 6/1 | 83 | 15 | 1 | | | | | |
| 901 | Stockyard 6/1 | 84 | 2 | 1 | 8 | 14 | 3 | 4 | |
| 902 | Stockyard 6/1 | 85 | 1 | 1 | 12 | 10 | 3 | 3 | 2 |
| 903 | Stockyard 6/1 | 86 | 2 | 1 | 12 | 16 | 4 | 4 | |
| 904 | Stockyard 6/1 | 87 | 1 | 2 | 9 | 14 | 4 | 4 | |
| 905 | Stockyard 6/1 | 88 | 1 | 1 | 12 | 11 | 3 | 3 | 2 |
| 906 | Stockyard 6/1 | 89 | 3 | 1 | 15 | 10 | 4 | 4 | |
| 907 | Stockyard 6/1 | 90 | 15 | 5 | 17 | 5 | 4 | | |
| 908 | Stockyard 6/1 | 91 | 15 | 3 | | | | | |
| 909 | Stockyard 6/1 | 92 | 1 | 2 | 11 | 10 | 3 | | |
| 910 | Stockyard 6/1 | 93 | 15 | 3 | | | | | |
| 911 | Stockyard 7/1 | 1 | 1 | 1 | 10 | 12 | 5 | 3 | 2 |
| 912 | Stockyard 7/1 | 2 | 1 | 1 | 22 | 33 | 16 | 3 | 2 |
| 913 | Stockyard 7/2 | 1 | 6 | 1 | 55 | 45 | 40 | 3 | 2 |
| 914 | Stockyard 7/2 | 2 | 1 | 4 | 30 | 29 | 10 | 3 | 1 |
| 915 | Stockyard 7/2 | 3 | 2 | 2 | 35 | 25 | 9 | 4 | |
| 916 | Stockyard 7/2 | 4 | 1 | 1 | 35 | 43 | 19 | 3 | 2 |
| 917 | Stockyard 7/2 | 5 | 1 | 2 | 20 | 11 | 6 | 4 | |
| 918 | Stockyard 7/2 | 6 | 1 | 1 | 53 | 48 | 17 | 3 | 2 |
| 919 | Stockyard 7/2 | 7 | 1 | 1 | 16 | 10 | 3 | 4 | |
| 920 | Stockyard 7/2 | 8 | 3 | 1 | 18 | 10 | 7 | 3 | 2 |
| 921 | Stockyard 7/2 | 9 | 1 | 2 | 20 | 16 | 5 | 4 | |
| 922 | Stockyard 7/2 | 10 | 5 | 1 | 16 | 9 | 5 | | |
| 923 | Stockyard 7/2 | 11 | 15 | 1 | | | | | |
| 924 | Stockyard 7/2 | 12 | 6 | 2 | 34 | 26 | 20 | | |
| 925 | Stockyard 7/2 | 13 | 4 | 1 | 18 | 10 | 3 | 4 | |
| 926 | Stockyard 7/2 | 14 | 3 | 1 | 20 | 10 | 7 | 3 | 2 |
| 927 | Stockyard 7/2 | 15 | 1 | 1 | 14 | 23 | 8 | 3 | 2 |
| 928 | Stockyard 7/2 | 16 | 1 | 1 | 42 | 55 | 20 | 3 | 2 |
| 929 | Stockyard 7/2 | 17 | 1 | 1 | 24 | 36 | 10 | 3 | 2 |
| 930 | Stockyard 7/2 | 18 | 3 | 1 | 52 | 17 | 6 | 3 | 2 |

Dorrigo Three Year Management Area Artefact Database

| Row | Site name | Art. no. | Art. type | Raw material | length | width | thickness | cortex | cortex type |
|---|---|---|---|---|---|---|---|---|---|
| 931 | Stockyard 7/2 | 19 | 1 | 4 | 20 | 17 | 5 | | |
| 932 | Stockyard 7/2 | 20 | 1 | 1 | 37 | 30 | 13 | | |
| 933 | Stockyard 7/2 | 21 | 1 | 1 | 25 | 30 | 5 | | |
| 934 | Stockyard 7/2 | 22 | 1 | 1 | 42 | 27 | 10 | 3 | 2 |
| 935 | Stockyard 7/2 | 23 | 11 | 6 | 140 | 65 | 65 | 0 | 1 |
| 936 | Stockyard 7/2 | 24 | 1 | 1 | 15 | 20 | 23 | 4 | |
| 937 | Stockyard 7/2 | 25 | 3 | 1 | 46 | 27 | 16 | 4 | |
| 938 | Stockyard 7/2 | 26 | 1 | 1 | 40 | 30 | 10 | 3 | 2 |

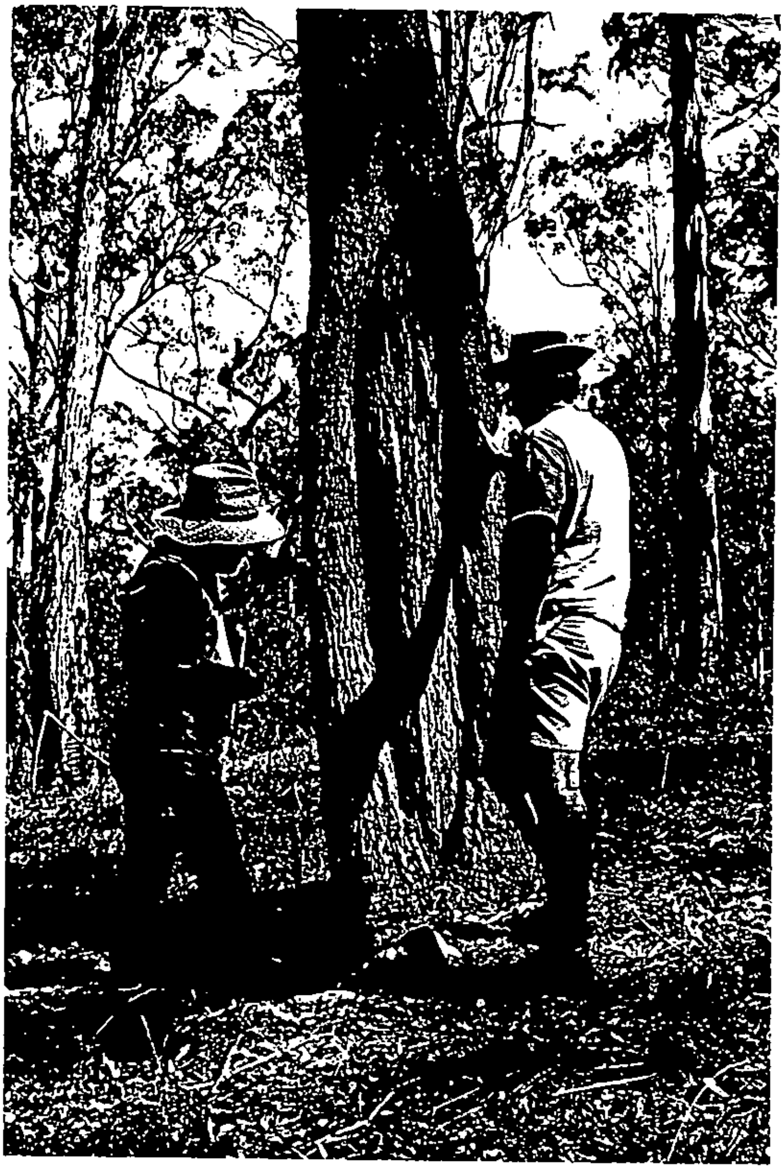

Plate 1: Scarred Tree, Site RH7/1.