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Archaeological Evidence for a Sealer's and Wallaby Hunter's Skinning Site on Kangaroo Island, South Australia

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ABSTRACT

Wallaby hunting began by sealers on Kangaroo Island south of Australia in the early 1800s as an off-season supplement to their whaling and sealing activities in the Southern Hemisphere. Compared to the northern hemisphere, very little is known about the activities of sealers who ventured to the south, particularly their means of survival between seasons and what occurred after leaving the industry. Other archaeological investigations around coastal Kangaroo Island have identified sealing and whaling, but sealer's camps are largely absent in such studies. This article presents the first reported archaeological site related to the "wallaby hunting" industry that operated on Kangaroo Island in the nineteenth and twentieth centuries. Wallaby hunting allowed sealers in this part of the southern hemisphere to shift to living permanently on Kangaroo Island. This site also provides critical ecological information on the impact of sustained hunting of mammals on islands. Prior to the arrival of whalers and sealers, Kangaroo Island underwent a hiatus in occupation for 4,000 years. Their arrival led to the local extinction of the Broad Faced Potoroo (wallaby-sized mammal) and the Kangaroo Island (dwarf) emu. The article adds to the poorly known biogegeographical data for these two animals as well as other mammals identified in the site assemblage.

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INTRODUCTION

Human settlement of Australia dates back to at least 43,000 years (O'Connell and Allen 2012), but occupation of Kangaroo Island situated approximately 13 km from the coast of South Australia (Figure 1) did not commence until about 20,000 years ago, coinciding with lower sea levels (Lampert 1981, 1989). However, in 1802, when navigators Matthew Flinders and Nicolas Baudin independently charted the coastline of Kangaroo Island, no habitation was recorded. Radiometric dating has indicated that Indigenous occupation ceased by around 4,000 years ago (Lampert 1981, 1989) and this is supported by the lack of fossil evidence on Kangaroo Island for the Dingo (*Canis familiaris dingo*), which arrived in northern Australia after this time and was quickly traded between Aboriginal people across the country. Also, during the last 4,000 years the two larger Australian carnivores, the Tasmanian Devil (*Sarcophilus harissi*) and the Tasmanian Tiger (*Thylacinus cynocephalus*), became extinct on both the mainland and Kangaroo Island. Between 4,000 years ago and the arrival of whalers and sealers in the early 1800s, followed by official European settlement in 1836, the island appears to have been devoid of human occupation and eventually of large carnivores. Thus the faunal population on the Island was not subject to human or other large carnivore predation, leading to some animals exhibiting notably naïve behavior when once again confronted by humans around 1800. This unusual situation was not replicated elsewhere along Australia's southern coast or offshore islands.

SEALING AND WHALING IN THE SOUTHERN HEMISPHERE AND KANGAROO ISLAND

By 1800 two significant historic events had taken place: the restriction on British boats sailing east of Cape Horn was removed and the American War of Independence had ended. The first allowed British boats entry into southern oceans and the second led to a revival of the Nantucket whaling industry. The latter had floundered due to overexploitation of whales and cetaceans in the 1700s, but with the American war over men and boats were available once again to head south (Dakin 1977). As a consequence of these two events, when the first official settlement in Australia took place on its east coast in 1788, American and British whaling boats were already working the east and west coasts of Australia. Whale and seal populations in the northern hemisphere had been severely depleted by that time and in order to satisfy the domestic demand for skins and oil, numerous American and British ships began to ply the southern ocean (Cordes 1984; Cumpston 1970). The many years of the East India Company operating in the southern hemisphere had also opened up markets between China and Europe and these had come to expect products manufactured from whale and seal oil as well as seal skins (Dakin 1977). Some boats later headed as far south as Heard and Macquarie Islands (McGowan 2000) whilst others began exploring the offshore islands around Australia's southern coast including Kangaroo Island, to continue the exploitation of cetaceans. Indeed, wherever ships went, it seemed inevitable that whale and seal populations would soon be severely depleted. Added to this, was the impact on terrestrial fauna from sealers who took up permanent or semi-permanent occupation of coasts and islands.

The first record of whalers and sealers spending one or more seasons on Kangaroo Island appears in 1805 when sealer Joseph Murrell and his crew arrived (Cumpston 1970; Sexton 1990). Murrell's crew spent three years on the island, stockpiling skins ready for boats to pick up their haul (Cumpston 1970; Robinson 1999). The precise nature of this seasonal occupation is unknown, but according to Robinson (1999), some

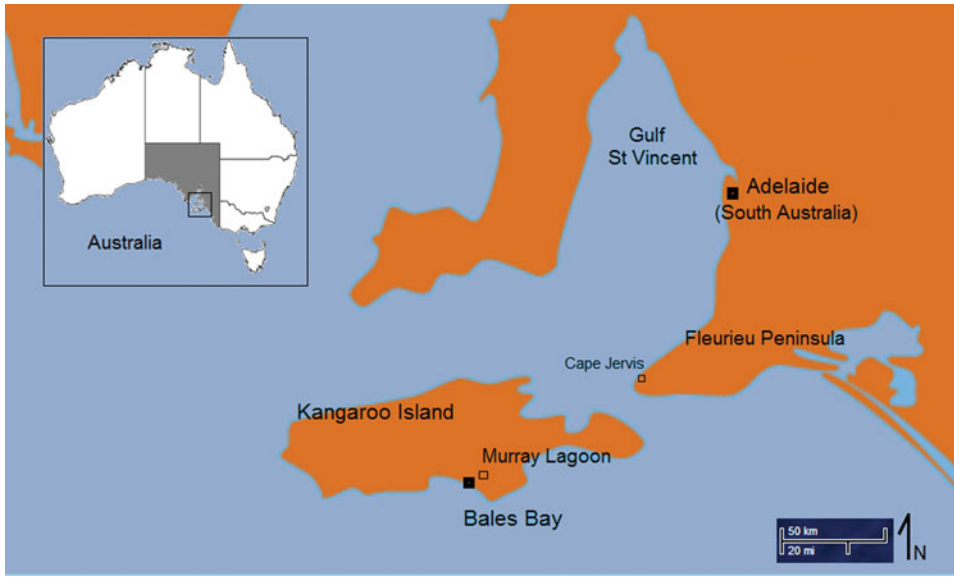

Figure 1. *Bales Bay on Kangaroo Island (color figure available online).*

500 sealers were permanently or seasonally working on the island prior to official settlement (1800 to 1836) to collect skins and sea lion oil. However, the problem of overhunting whales and seals was repeated in this ocean and in the early 1800s, some sealers had adapted to island life, focusing instead on hunting terrestrial animals instead of sea mammals (Taylor 2002). There appears to be no equivalent to this in the northern hemisphere where instead, sealers simply departed for opportunities elsewhere, often after only a brief stay on an island (Pearson and Stehberg 2006). The one corollary might be found in New Zealand, where some sealers settled into emerging colonial industries (Prickett 2008).

Kangaroo Island was unique and attractive in that it offered an abundance of kangaroos and wallabies with a thicker and softer fur which was an adaptation to the colder climate compared to their counterparts on the Australian mainland. Because of their relative isolation, they were also not used to humans for some 4,000 years. These two factors made them an ideal target and records indicate that at least 16,100 kangaroo skins and 11,800 wallaby skins were exported from Kangaroo Island prior to the 1830s (Sexton 1990). These figures are probably a gross underestimate considering that 25 years later in 1854 the schooner *Elizabeth*, captained by whaler John Hart bought 12,000 wallaby skins from the Islanders in one season alone (Hart 1969). As a result of their exploits, some sealers became well-known identities after official settlement and along with the Aboriginal women brought by force from the Bass Strait Islands to the east began to appear in newspaper articles and other records as 'wallaby hunters of Kangaroo Island' (Cumpston 1970; James 2001; Ryan 2012; Taylor 2002). When the *Africaine* arrived in 1836 carrying the first official immigrants to South Australia, the passengers were met by a wallaby skin clad sealer inviting them to lunch. The event is delightfully recorded by the first colonial surgeon, Walter Leigh (1982), who was obviously quite taken with the novel hospitality offered by the island's "lawless" gang of sealers and their Aboriginal "wives." The relationship between sealers and Aboriginal women has been the focus of much other research (see Clarke 1996, 1998; De

Leiuen 1998; James 2001; Matthews 1999; Russell 2005; Ryan 2012; Staniforth 2008; Taylor 2000, 2002). Women were generally kidnapped by sealing gangs (Taylor 2000) and "enslaved" (James 2001), but the status of the "mixed race" men of Aboriginal descent also recorded on the boats during this time is only now beginning to be explored (Prickett 2008). Further, the demography of Aboriginal people on the island is vague, with the added problem of only a few "favorite" names being allocated to multiple Aboriginal women (with children and men remaining unnamed), in the archival record (James 2001; Taylor 2002; Walshe 2008).

The history of Kangaroo Island during the whaling and sealing era is replete with evidence for sealers and Aboriginal women cooperatively trapping animals for their skins in similar fashion to the situation in Tasmania and other Bass Strait Islands (Ryan 2012) and shifting to permanent life on the island. Eventually, populations of wallabies and kangaroos followed a similar pattern to that of the sea mammals and were in serious decline. In 1834 the total number of skins exported from the island was a mere 1800 (Cordes 1984).

ARCHAEOLOGICAL EVIDENCE FOR WALLABY HUNTING AND SKINNING ON KANGAROO ISLAND

A survey for Aboriginal occupation sites around Bales Bay on Kangaroo Island (Figure 1) located an extensive, but discrete concentration of animal bone (Walshe 2000). This scatter was concentrated at the base of a hummocky dune which is one of a series of such dunes composed of Holocene sands built up over basal limestone. The concentration of bone appeared to be spilling from a lens within the dune and approximately 2 m above the basal limestone. The presence of well-preserved and numerous mammal jaws allowed easy identification of Tamar Wallaby in particular, along with Spotted-tailed Quoll, bandicoots, and native rodents. Penguins, gulls, and the Kangaroo Island Emu were also identified from post-cranial remains.

Australia has very few open sites along its coast which have well-preserved faunal material. This is due to its generally harsh environment; the southern margin of Kangaroo Island is certainly no exception (Cane 1997). The prevailing winds off of the southern ocean, driven by Antarctic weather, cause osteological elements to rapidly dehydrate and break down within relatively short time frames. As a testament to this issue, all of the recorded faunal assemblages from Kangaroo Island to date, apart from the site described here, have been excavated from within caves. The concentration of bone on this open site is notably unusual. Emus and Spotted-tailed Quolls were extinct on Kangaroo Island by the time of official settlement in 1836 thus dismissing the possibility of the site being refuse from a modern hunting camp. The assemblage could only be explained by either catastrophic death or as the remnants of a prehistoric Aboriginal campsite. The former requires simultaneous catastrophic death to terrestrial, marine, and avian animals in one discrete location. The latter, as discussed earlier, is also improbable in view of the archaeological evidence for pre-contact Aboriginal occupation on Kangaroo Island (Lampert 1981, 1989; Walshe 2005). The context of the faunal lens suggests a modern formation and its discrete nature also indicates that it is the result of deliberate activity.

CHRONOLOGY OF THE BALES BAY FAUNAL ASSEMBLAGE

A specimen of Spotted-tailed Quoll collected from the site, hereafter named KI-BB-WSS1, was sent for AMS radiometric dating. The calibrated result revealed it to be 223 $\pm$ 15 BP or AD 1730 to 1800 (GNS NZA 34970) at 2σ (95% confidence interval), confirming the site to be of recent, rather than ancient origin. The Kangaroo Island Emu (*Dromaius baudinus*) was observed by Flinders and Baudin in 1802, but by 1836 the bird was no longer seen (Carpenter and Horton 1999). According to Walter Leigh (1982) who landed on Kangaroo Island in 1836, the last emu had been killed some 12 years

previously, placing its demise around 1824. These two chronological markers place the site well within the whaling and sealing era which was active around the southern waters of Australia by the early 1800s (Cumpston 1970; Robinson 1999).

SITE DESCRIPTION AND GEOLOGICAL CONTEXT

The KI-BB-WSS1 site is set within an extensive, mobile dune field of Bales Bay on the south side of Kangaroo Island (Figure 1). The site consists of a scatter of animal bone, set against the lower margin of a steep hummocky dune that stands approximately 40 m above the plain. This dune is hereafter referred to as BB-WSS-Dune A (Figure 2). At some point in time sand on the southern face of Dune A has slumped down and covered an older cemented dune sitting below. This older cemented dune is now being partially revealed by deflation (Figure 3). Deflation has also led to a lens of animal bone spilling out from Dune A. This bone is presumed to be on the surface of the cemented dune, now mostly buried by the slumping of one face of Dune A.

Well-preserved examples of cemented dunes are visible on the limestone plain and two are in close proximity to Dune A (Figure 2). These features are sparsely vegetated and sculpted over time by prevailing winds. These cemented dunes offer a relatively clear, sand-free surface.

Other lesser bone scatters, are exposed near BB-WSS-Dune A on other dunes and the limestone plain in small discrete foci. Other foci with similar, but lesser assemblages have also been recorded in situ further into the dune field, away from BB-WSS-Dune A. A total of 6 kg of animal bone has been collected from all sites recorded around Dune A, and of this approximately 50% is from KI-BB-WSS1.

In this article I describe only the bone from the lens associated with the cemented horizon at KI-BB-WSS1 in order to arrive at a more coherent and robust interpretation. Bone collected from other foci will contribute to the next stage of analysis. It is worth noting however, that the remaining bone indicates a similar origin and taphonomic profile and it is anticipated that future analysis will extend the current interpretation rather than challenge it. This assemblage is also informative on biogeographical and chronological levels by providing information on two animals (the Broad Faced Potoroo and

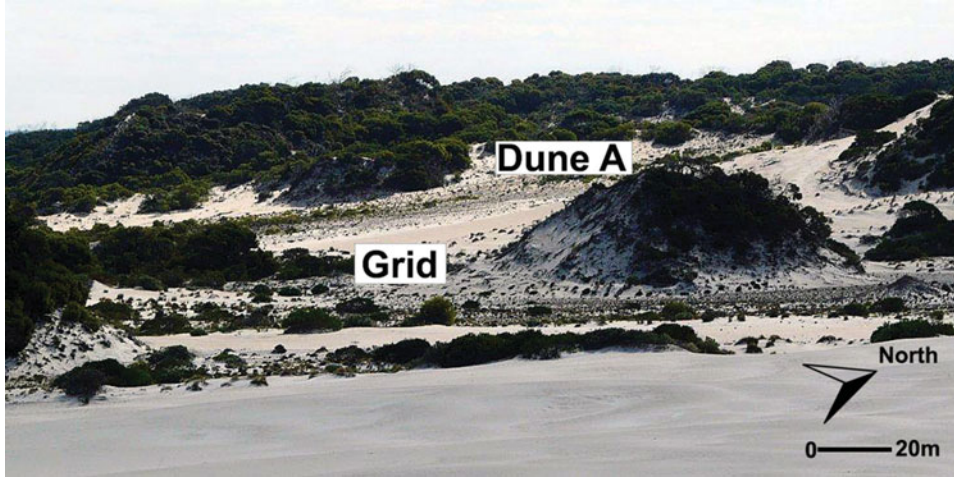

Figure 2. *KI_BB_WSS1 Dune A and Grid (color figure available online).*

Figure 3. *Cemented dune revealed by deflation (color figure available online).*

the Kangaroo Island Dwarf Emu) that were present on the island in 1800, but were both extinct by 1836. For this reason, the dental elements from all collection areas around KI-BB-WSS1 have been identified in order to report as complete a species list as possible for the dune field of Bales Bay.

KI-BB-WSS1: The Vertebrate Assemblage

Bone has deflated from the lower margin of BB-WSS-Dune A and fallen onto a gently sloping surface until it shifted again by the prevailing south-westerly winds into a deflated gutter dipping north-west. Here the bone travels at a rate determined by individual morphology and weight until settling against a slightly higher gradient on the western side. Bone is also deflating directly into this gutter by the same wind action, as it works away at the westerly face of the dune. This west-facing deflation area is operating at a much slower rate than the south-facing deflation area and appears to be accumulating bone blown around from the south at a more rapid rate than from the lens above it. Thus the two deposits resulting from the same lens are uneven with a dense concentration of bone (and some marine shell) on the low sand rise below the dune on its southerly face and a lesser concentration of bone collecting in the gutter below its westerly face. However, the bone is derived from the same horizon and for this reason is treated as such in this analysis.

Spatial relativity for the bone has been destroyed by the secondary nature of the deposit. As discussed above, the bone is deflated out from the base of the dune and redeposited onto a low sand rise from where it is eventually shifted again by the wind onto lower surfaces. For this reason, a fairly coarse approach was applied to collection, but future excavation may provide an opportunity to record important and complementary spatial relationships within the assemblage.

A grid measuring 20 × 10 m was set out over the main concentration of deflated bone on the south side of the dune (Figure 2). This grid was divided into eight sections of equal proportion (5 × 2 m each). All visible bone, shell, and other organic material from each section was collected with its own identifier. Bone in the gutter and around to the west face was collected as a separate entity at the time, although as stated previously, it is recognized that it has the same origin. Species were identified by dental elements and MNI were tallied from the same dental elements. Diagnostic post-cranial material was identified to species or genus level. Elements lacking clear diagnostic features were identified only to family.

The bone weight for KI-BB-WSS1 is 3233.37 g, of which mammals make up approximately 50% and emus around 30%. The remaining 20% is mostly non-diagnostic material along with a few elements from echidna, reptiles, and birds, including penguin (Table 1). Weights are based on both post-cranial and cranial material, but MNI is based on dental material only. Small macropods primarily include the Tamar Wallaby (*Macropus eugenii*) and to a lesser extent the Broad Faced Potoroo (*Potorous platyops*). Due to the lack of post-cranial reference material for *P. platyops*, all Macropodoidea post-cranial material was separated into either "kangaroo" or "wallaby." Thus the weight given for Tamar Wallaby in Table 1 will most likely include *P. platyops* elements as well. However, material that could be confidently assigned to *M. eugenii* comprised

Table 1. **KI-BB-WSS; MNI (dental only) and bone weight.**

Common name	Scientific name	Weight g	MNI
Tamar wallaby	*Macropus eugenii*	1,315.12	42
Spotted-tailed quoll	*Dasyurus maculatus*	21.31	25
Broad faced potoroo	*Potorous platyops*		16
Southern brown / Western barred bandicoot	*Isoodon obesulus / Perameles cf. gunni*	1.8	15
Bush rat	*Rattus fuscipes*	1.4	8
Kangaroo Island kangaroo	*Macropus fuliginosus*	259.06	4
Brush tail possum	*Trichosurus vulpecula*	54.72	1
Kangaroo Island emu	*Dromaius baudinus*	1,019.45	4
Echidna	*Tachyglossus aculatus*	7.97	1
Penguin	*Eudyptula minor*	4.09	1
Pacific gull	*Larus pacificus*	55.97	2
Non-diagnostic		389.83	

Total weight: 3,233.23 g; Total MNI: 119; NISP: 12.

more than 80% of the combined weight for kangaroo and wallaby.

Based on weight and MNI, the most common mammal represented in the assemblage was the Tamar Wallaby (*M. eugenii*). Other mammals include the Kangaroo Island Kangaroo (*Macropus fuliginousus*), Broad Faced Potoroo (P. *platyops*) Spotted-tailed Quoll (*Dasyurus maculatus*), Southern Brown Bandicoot (*Isoodon obesulus*), Eastern or Western Barred Bandicoot (*Perameles sp*.), Brush Tail Possum (*Trichosurus vulpecula*) and Bush Rat (*Rattus fuscipes*) (Table 1). Western Mouse (*Pseudomys occidentalis*), Common Dunnart (*Sminthopsis cf. murina*), and Feathertail Glider (*Acrobates pygmaeus*) were identified in other collections at KI-BB-WSS1-Dune A (Table 1).

KI-BB-WSS1: Taphonomy

The bone from the KI-BB-WSS1 grid collection weighs 3233.23 g and is generally well preserved. By weight, approximately 40% is from Tamar Wallaby and 49% of the MNI (n = 119) are wallaby or potoroo. The post-cranial material assigned to the category of wallaby displays a clear bias whereby elements from the lower body (caudal vertebrae, pelves, femurs, tibiae, fibulae, metatarsals, and tarsals) are over-represented compared to the upper body (crania, upper vertebrae, ribs, humeri, radii, ulnae, scapulae, clavicles, metacarpals, and carpals). Differential preservation is present on some anatomical elements, but is insufficient to support a case for differential environmental preservation. Taphonomic investigation has identified various marks on a number of limb and tail bones (Figure 4) consistent with human or carnivore agents of

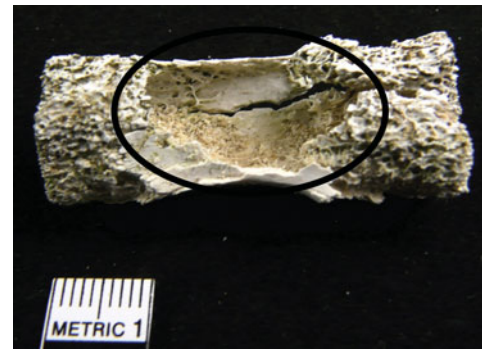

Figure 4. *Caudal vertebrae of Wallaby showing damage (color figure available online).*

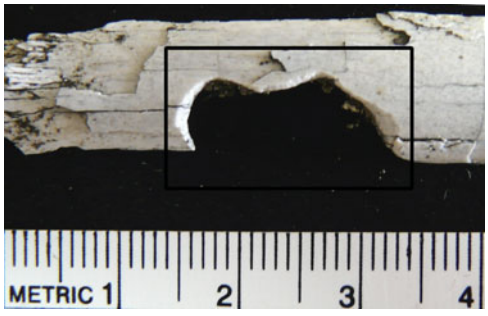

Figure 5. *Shaft fragment with impact damage (color figure available online).*

deposition as described elsewhere (Bonnischen and Sorg 1989). Distinguishing the agency in this context requires extensive replication experiments and will be the focus of future research. However, a fragment of long bone (Figure 5) exhibits a clear impact notch as described by Gifford-Gonzalez (1989) which is likely attributed to human agency.

The absence of cut marks is consistent with humans skinning carcasses and the bias toward lower body parts is consistent with consumption of preferred parts of select carcasses. The presence of an impact notch suggests that hunters were also extracting marrow from long bones. The relatively low MNI for kangaroos in the assemblage suggests that this site was focused on wallabies and other similar sized animals with prized furs (potoroos, bandicoots, and quolls). Kangaroos are represented by very few skeletal elements, suggesting much greater consumption of the whole carcass after skinning. One juvenile wallaby mandible exhibits a puncture mark consistent with a Canid canine, suggesting that dogs were also present and possibly used in hunting. The cut marks and other modifications found on some bones is best attributed to humans and/or dogs.

Both mature and juvenile emus and emu egg shell were identified in the assemblage, possibly suggesting that hunting was unsustainable. In contrast, the mammal assemblage is dominated by adults with few subadults and even fewer juveniles, across all family groups. This may, however, reflect the hunting method rather than sustainable practice.

Emu gastroliths were identified in the assemblage and around the site indicating that emus were processed on site, probably for both their feathers and food. Quolls are represented in the assemblage by all skeletal elements equally, suggesting that skinning was a priority over consumption.

Methods of Trapping, Skinning, and Consumption of Wallabies

In 1836 Walter Leigh (1982:104) observed that "an islander and his three black wives . . . upon a hunting expedition, and having previously set snares in the path through the wood . . . . hurried off to examine them." Both Europeans and Aboriginal people arriving on Kangaroo Island in the early 1800s shared a geographic and kindred uncertainty about the land, but were united in their skills and knowledge of snaring as made clear in an article from the South Australian Register:

> The wallabies have numerous established pathways through the scrub in every part of the island, and across these the snares are placed so that when the wallaby springs along the path, it is almost sure to be caught. These nooses the black women visit about day-break, and generally return loaded about nine or ten o'clock. Their masters skin the wallabies: the skins are then extended on sticks until they dry, and are afterwards put up in bundles, fifty in each. ("Kangaroo Island" 1844:3)

Snaring was an activity long familiar to Aboriginal women on the mainland and snaring has been a part of European traditional hunting methods for at least hundreds, if not thousands of years. Neck snaring is the most common practice and relies on animals habitually using the same pathway or "run" through dense vegetation. A noose made

Figure 6. *Wallaby in neck snare, Kangaroo Island 1905 (SLSA collection).*

from stiff string or thin wire is set across the run and fixed to the ground by a stake. The noose tightens when the animal realizes the loop is around it and pulls back as shown in a photograph (SLSA PRG1/1/196) taken on Kangaroo Island in 1905 (Figure 6). This simple method is known to work well for wallabies, potoroos, bandicoots, and Bush Rats which all use runs, but is ineffective for kangaroos which are too large. Kangaroos and emus may have been trapped in foot snares followed by a blow to the head and/or taken down by dogs. Spotted-tailed Quolls may occasionally have been caught in neck snares as incidental catch; however, the luxurious coat with an under layer of "abundant brown fur" (Wood Jones 1968) would not have disappointed the trapper (Dixon 1920:29–30). Wood Jones (1968) compared the Spotted-tailed Quoll to martens of the Northern Hemisphere and these animals have also been a bycatch when neck snaring Snowshoe Hares (Proulx et al. 1994). Alternatively, a wallaby left in a snare would naturally attract the carnivorous quoll, and by placing a foot snare nearby, it is possible that quolls were also caught in this manner. Shooting is also a possibility for quolls, kangaroos, and emus, but probably a last choice considering the lack of readily available gunpowder on Kangaroo Island in the nineteenth century and the potential damage to the skins.

Bush Rats (*R. fuscipes*) are also found in the assemblage and were described by Wood Jones (1968:300) as a "fluffy, sturdy somber coloured rat with a . . . fine flecking of black hairs with yellow points" and a habit of staying close to creeks and lagoons. Bush Rats are known to have the highest water requirement of any native rat (Watts and Aslin 1981), and setting neck or foot snares near water may well have enhanced success.

Bandicoots can be neck snared, but are also captured in their nest where they generally spend much of the day (Wood Jones 1968). Bandicoots were a much favored food of Aboriginal people and are common to most pre-contact surface sites in southern Australia (Dixon 1920; Walshe 1998).

The smallest, and most poorly represented animals in the entire collection from Bales Bay, namely the Feathertail Glider, Western Mouse, Common Dunnart, penguin, Pacific Gull, and echidna are likely to be the result of opportunistic takes by humans and perhaps dogs and/or natural mortality. Additionally penguins and Pacific gulls are often stranded at shore lines or inter-dunal areas if ill or starved, leaving them vulnerable to attack. Table 2 lists the likely hunting method for each animal and the current status of that animal on Kangaroo Island.

Neck snaring is unlikely to result in major trauma to the post-cranial skeleton. Skinning small- to medium-sized animals is a simple affair that requires a few cuts to the skin with minimal or no contact with bone (Ashbrook 1955). The first and main cut is around the distal tibia and fibula to release the skin from the foot and around the anus to release the tail. The whole skin is then pulled toward the upper legs and by removing the head, can be entirely pulled off the carcass. Kangaroos are skinned similarly, but with more vigor due to their size. Emus are simply plucked if the feathers are also required. By contrast, butchering for consumption is likely to leave cuts, scraping, and teeth marks on long bones.

Wallaby meat from the lower legs and tail was preferred to the poorly clad upper body, which was given to dogs when present or simply discarded. Recipes for wallaby tail soup and roasted kangaroo tails appeared in Australia in the 1800s along with the more famous parrot pie demonstrating widespread

Table 2. **Hunting method and current status for each animal.**

Scientific name	Common name	Capture method	Current status
Macropus eugenii	Tamar wallaby	Snare	Observed
Macropus fuliginosus	Western grey kangaroo	Hunt	Observed
Dasyurus maculatus	Spotted-tailed quoll	Snare	Extinct
Isoodon obesulus	Southern brown bandicoot	Snare	Observed
Perameles cf. gunnii	Western barred bandicoot	Snare	Extinct
Potorous platyops	Broad faced potoroo	Snare	Extinct
Trichosurus vulpecula	Brush tail possum	Snare	Observed
Rattus fuscipes	Bush rat	Snare	Observed
Acrobates pygmaeus	Feathertail glider	Opportunistic	Extinct
Pseudomys occidentalis	Western mouse	Opportunistic	Extinct
Tachyglossus aculeatus	Echidna	Opportunistic	Observed
Eudyptula minor	Little penguin	Opportunistic	Observed
Dromaius baudinus	KI emu	Opportunistic	Extinct
Larus pacificus	Pacific gull	Opportunistic	Observed

popularity (Beeton 1894). Bandicoots were similarly popular to eat, unlike quolls and possums, which were considered unpalatable. The taphonomic profile of the assemblage provides evidence for the methods of snaring, skinning, and consuming described here.

DISCUSSION

Drawing from the taphonomic and archival evidence, KI-BB-WSS1 is interpreted as a skinning site with taphonomic evidence for the consumption of parts of select carcasses. Further support for Bales Bay dunefield as a place for "wallaby" snaring and skinning is found in Norman Tindale's Kangaroo Island 1930–1974 journal where a sketch map refers to "Mays Old Camp" (Figure 7). The scale on his sketch is reasonably accurate (using distance from Lake Ada to the coast), and the location of "Mays Old Camp" is within the vicinity of KI-BB-WSS1. Tindale later reflects on the presence of "native" women on the island and refers to "Mrs May" who was born near the whaling station at D'estrees Bay and over 81 years old in 1930 (Tindale 1930–1974). She was also a descendant of one of Kangaroo Island's more notorious sealers George (Fireball) Bates—who led a particularly colorful life. Bates landed on Kangaroo Island in 1824 and he later recalled that at that time "there was any amount of kangaroo and emu and fine kangaroo at that, regular boomers. We used to get plenty of skins in those days" ("A Kangaroo Island relic" 1887:7). Bates states that the skins were traded for tobacco and rum and they all lived well on kangaroo meat until the kangaroos were "cleared off' through 'bush fires and we with dogs" ("A Kangaroo Island relic" 1887:7).

On Tindale's reckoning, Mrs May was born around 1850, but on his sketch map, he added under the label "Mays Old Camp"—"Brecknell, half caste Bates 1860" (Figure 7), which confuses the situation. Further confusion arises in his journal notes when he refers to "May's old camp" as "Brecknells Old Camp behind the big sand hills." Brecknell was a shepherd of Scottish descent who dwelt there at some time in the middle to late 1800s, and Brecknell, along with "Five Beaches," preceded "Bales" as the name for the Bay (Tindale 1930–1974). Although it is unclear at this point if two camps were known to Tindale or if the single camp was associated with two identities, it is

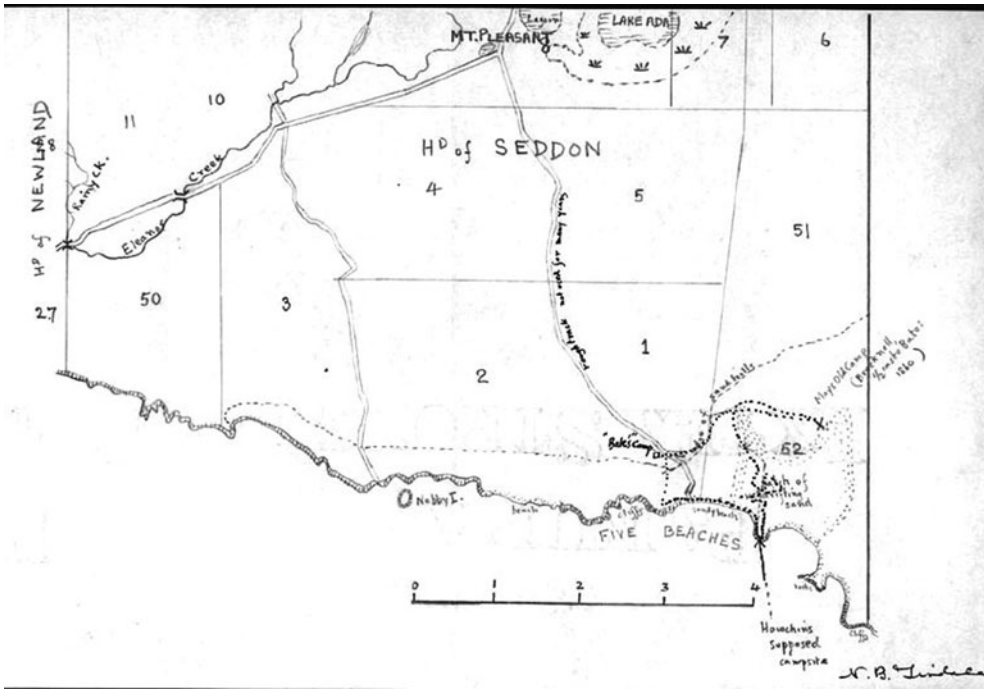

Figure 7. *Bales Bay sketch map, NB Tindale 1930.*

considered significant that Tindale uses the term "old camp."

Tindale also marks on his sketch, the hut built and occupied by trapper Alfred Bales. Bales built his stone hut in the early 1900s and lived there until 1924, setting snares in the dune field and selling the skins. In 1930, Tindale also located a catchment dug into a shallow depression when following a track between Bales's hut and "May's Old Camp," which he attributed to sealers. Interestingly, three huts were observed on the beach to the west of Bales Bay by the fateful party who ventured off the *Africaine* in 1836 (Cumpston 1970; Leigh 1982). These huts were presumably used by sealers and the site is less than 2 km to the north-east. The presence of small quantities of sea shell and seal and penguin bone on the site offers some evidence for a sealers path between the beach and the site. Tindale's journal is intriguing, but other, more substantial evidence is required before confirming any relationship between descendants of the well-known sealer Bates and KI-BB-WSS1.

CONCLUSION

The presence of the Kangaroo Island Emu, a radiometric result from animal bone, and archival evidence, support a chronology of ca. AD 1800 to the early 1900s for site KI-BB-WSS1. During this time, Tamar wallabies, Broad Faced Potoroos, and Spotted-tailed Quolls were snared, skinned, and some of the meat consumed. Kangaroos, emus, bandicoots, and possibly Bush Rats were also trapped and other animals taken opportunistically. The hunters were sealers who eventually shifted from seasonal hunting of sea mammals and an itinerant life to hunting terrestrial mammals and a permanent life on an island in the southern hemisphere. The hunters were also Aboriginal women transitioning from a traditional hunter-gatherer

life elsewhere to finding commonality with the sealers in snaring and skinning animals. Their descendants continued to hunt terrestrial mammals until the mid-twentieth century.

Lawrence and Davies (2011) note that archaeologists have struggled to identify sealer camps on Kangaroo Island. Sealers operating on islands much further geographically south than Kangaroo Island have left a greater physical presence in the way of shelters and artifacts (McGowan 2000; Pearson and Stehberg 2006; Zarankin and Senetore 2005). This is possibly a result of being left for longer periods of time and as a result, with a greater quantity of goods. Kangaroo Island has a comparatively more benign climate and sealers were initially left for shorter periods of a few months. In all, these sealers required fewer goods and materials, which in turn offered a lesser chance of preservation and assemblage diversity (Staniforth 2008). Furthermore, the few possessions that sealers had were undoubtedly coveted and broken objects reworked into other useful objects rather than discarded. It is not until sealers transition into a permanent life on the island that the archaeology can be more visible and with a greater chance of survival.

This site also offers potential for future exploration of the term "creole" as applied by Russell (2005) for archaeological sites left by displaced Indigenous women. Sealing gangs from America, Britain, and Europe moved through both hemispheres for over 150 years and often left Indigenous people, their mixed-race descendants, and themselves in places far from their own place of birth. As noted by Lawrence and Davies (2011), archaeological investigations into the human geographic and cultural shifts that have led to the creolization and the emergence of new national identities across the world invites, and indeed requires, global discussion.

The faunal record from KI-BB-WSS1 is informative for archaeologists and the field of biogeography by adding to the known spatial and temporal distribution of the Broad Faced Potoroo, the Feathertail Glider, and the Spotted-tailed Quoll. Prior to this analysis, it was uncertain if these animals were resident on Kangaroo Island at this time (Andrewartha and Barker 1969; Robinson and Armstrong 1999). Sadly, their demise soon after European arrival (and that of the Dwarf emu) emphasizes the impact of humans on island ecologies. It is anticipated that future archaeological work on wallaby hunting sites on Kangaroo Island will lead to a more precise understanding of the extent and nature of human impact on this island's ecology. This anticipated outcome will in turn allow a better understanding of the archaeology around sealing gangs as they shifted to permanent settlement.

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