

Blundells Flat, Uriarra Forest A.C.T.: A Cinderella story

Mark Butz

Futures by Design, Canberra ACT, Australia

Peer reviewed contribution

Keywords: bushfire, landscape restoration, heritage, biodiversity, wetland, riparian, catchment, forestry, forest research, arboretum, Bogong moth, Aboriginal people, pathways, pioneer journeys, Federal Capital Territory, Australian Alps national parks, open space recreation

ABSTRACT: Until it was decimated in the wildfires which struck Canberra in January 2003, the Blundells Flat area in the north-western corner of the ACT had received relatively little attention, other than for open space recreation and softwood forestry. A study was undertaken to assist consideration of options for post-fire restoration of the historic Blundells Arboretum in a broader landscape context. This revealed a diverse range of documented heritage values, some of which had gone largely unrecognized in management of the area. The paper discusses shifts in social values placed on forests as illustrated by the changing fortunes of the area, and suggests that stories of Blundells Flat support management of the area for a broader range of heritage values and community benefits in the aftermath of the fires.

1 WHAT A DIFFERENCE A DAY MAKES

The Blundells Flat area, in the north-western corner of the Australian Capital Territory (ACT), is a broad and mostly open flat at about 720 m asl, encircled by hills and mountain ranges which rise to Mount Coree at 1,421 m asl. Some of the hills and ranges retain native forest while others have been planted to *Pinus radiata*. In parts of the Flat exotic willows on stream banks and arboreta of conifers and poplars have provided visual diversity, shady spots for picnics, and other open space recreation opportunities. Although just 27 km west of Canberra the area's sense of enclosure and remoteness made it a popular departure point for a wide range of recreational pursuits.

Much of this changed in one day during January 2003 when a wildfire moved quickly over the Brindabella Range from New South Wales (NSW). Joining with two other fires, the massive front continued through rural lands and into Canberra itself, destroying more than 500 homes and taking four lives. Around two-thirds of the ACT was affected including 110,000 ha of native forest burnt (much of it at high intensity) and 11,000 ha of pine plantations destroyed.

The familiar landscapes of Blundells Flat were transformed. Willows, pines and poplars were killed, visitor infrastructure obliterated, and access tracks blocked by fallen timber. After rain, Condor Creek filled with ash and woody debris, draining eventually to the Cotter Dam.

Among the losses was the Blundells Arboretum, established in 1929 to test the suitability of various species for timber production. The fires claimed 18 of the 19 historic arboreta remaining in the ACT. Faced with this dramatic loss of forestry heritage, the Friends of ACT Arboreta obtained a grant to examine options for the recovery of the arboretum at Blundells.

The group recognised that the future of the arboretum was inextricably linked to the surrounding landscape and commissioned a background study of natural and cultural heritage values (Butz 2004). As outlined in the following paper, this community initiative revealed numerous layers of significance in the area. These in turn provided an illustration of shifts in community values and the way these can affect forest management, some cautionary tales of management failure to respond, and clues to a healthy and sustainable future.

2 NATURAL ADVANTAGES

2.1 Landscape

Prior to the fires Blundells Flat had high aesthetic value, derived from its setting as a flat enclosed by ranges, reliability of water in its streams, and its proximity to valleys, high cliffs and waterfalls. Although blackened and prone to degradation, the framework for these values has endured and more features have become readily visible since removal of dense cover in plantations.

2.2 Vegetation

Among the landscape elements more visible since the fires, and more evident due to higher water yields, is an upland wetland complex with cryptic flow in a broad soak and large seasonally waterlogged meadows, supporting diverse vegetation in fens, bogs, reed beds and herbfields.

Where Condor Creek has a defined channel, riparian stands of *Eucalyptus viminalis* (Ribbon Gum) and fringing *E. stellulata* (Black Sallee) are regenerating. However, there is no evidence that *E. camphora* (Mountain Swamp Gum), a species of waterlogged sites, is returning. Blundells Flat was at one time its only known locality in the ACT (NCPA 1989), although it is now found on one site downstream where it is regenerating (Carey et al 2003). It is likely that this species had been eliminated at Blundells Flat prior to the 2003 wildfires, through clearing, controlled burning, and/or hydrological changes, suggesting limited appreciation that this species warranted protection.

On the steep slopes between Blundells Flat and Mount Coree, above the pine plantation, are tall stands of *E. fastigata* (Brown Barrel). This is notable as the largest single occurrence of this association in the ACT (ANU 1973), for its location at the western limit of the species' range in south-eastern Australia (Fraser 1988) and as important habitat for large arboreal mammals (NCPA 1989). It replaces *E. delegatensis* (Alpine Ash) here because of the substrate of Devonian volcanic rocks (ANU 1973). The spring-fed streams which supply the wetlands below are sufficiently reliable to support a restricted wet gully flora, with many fern species uncommon in the ACT and also likely to be of value for fungi (NCDC 1984). All Brown Barrel forests and associated wet gullies in the ACT were burnt in January 2003 and most are recovering despite protracted drought.

2.3 Fauna

Areas of native grassland are now visible on parts of the Flat previously dominated by pines. These once supported the wingless morabine grasshopper *Keyacris scurra* (Key's Matchstick Grasshopper), which depends on grassland/grassy woodland with abundant *Themeda australis* (Kangaroo Grass) and patches of the daisies *Chrysocephalum apiculatum* and *C. semipapposum*.

The species has proved to be more extensive and populous than was thought in the past, mostly in relatively undisturbed graveyards and railway easements (Rowell & Crawford 1995). When collected at Blundells in the 1940s and 50s it was considered rare, however this did not prevent its habitat from being destroyed, probably when establishing plantations. Due to limited mobility and fragmented populations, it is highly vulnerable to fire at most times of the year, with little potential for recolonisation. During a search in 1992, it was not relocated in this area, nor in any of the former recorded locations in the lower Cotter catchment (Rowell & Crawford 1995).

One animal species recorded from Blundells Flat which certainly is still regarded as threatened is *Pseudophryne pengilleyi* (Northern Corroboree Frog), with a restricted distribution in the high country of the ACT and adjacent NSW from about 800 to over 1,800 m asl (Carey et al 2003).

There was a breeding population in the wetland at Blundells Flat in the late 1980s, making this the lowest altitude record of the species in the ACT and one of the northernmost records (NCPA 1989). The tiny banded frog relies on autumn breeding habitats in moist to wet grass or bog, with shallow pools and seepages or sheltered depressions in wet heath, sedge or *Sphagnum*, complemented by non-breeding (over-wintering) habitat of moist forests, woodlands or heaths with abundant shelter in the form of ground litter, rocks, logs and ground cover vegetation (ACT Government 1997).

All known over-wintering habitat and known breeding sites were burnt in the January 2003 wildfires. This would have had a compound effect on the species, causing direct mortality, reducing recruitment to the populations, and reducing over-winter survival due to loss of ground cover adjacent to breeding sites. In the ACT nests with eggs were located after the fires and captive husbandry was commenced (Carey et al 2003).

The population at Blundells Flat was probably a marginal breeding site because of its altitude, and its suitability may have been degraded by planting of pines adjacent to wetland areas and poplars in meadow areas, or by controlled burning which can reduce shelter in over-wintering habitat. Despite the recorded presence at Blundells of a species as highly threatened as the Corroboree Frog, this did not seem to have much effect on management decisions.

Another well-recorded occurrence at the Flat was the burrowing land crayfish *Engaeus cymus*, (Dept of Capital Territory 1975). Previously described as *Engaeus parvulus*, with the type locality at 'Blundells, Condor Creek' and also known from the Goodradigbee River and tributaries in NSW (Riek 1969), it was returned to *E. cymus* in a subsequent taxonomic review (Horwitz 1990).

These tiny crayfish (to 45 mm) live in deep burrows that end in a water-holding chamber. Because burrows can be found a considerable distance from permanent water this is regarded as a land crayfish, although some use swampy ground or tunnel between rocks in small stream banks. They live in family communities, with a burrow likely to contain a mature pair and offspring of two age groups. Juveniles leave at the end of two years and start their own burrow, and they may live to about 20 years. This is a 'dual-habitat' species, traveling overland to feed and depending on ground cover for shelter from predators (Dept of Capital Territory 1975).

Elsewhere in Australia seventeen species of *Engaeus* are listed as species of conservation significance (Yen & Butcher 1997) because of limited distribution, high sensitivity to changes in their environment during critical life stages, and risk of predation when they are on the surface feeding. There is no such listing for *E. cymus*, although it is certainly uncommon in the ACT (NCDC 1984). All known habitat areas in the ACT and most in adjacent NSW were burnt in January 2003.

Although its presence at the Flat was described in the 1970s and recognized until at least the late 1980s, the needs of *Engaeus* do not appear to have been overtly considered in forest management. One can only speculate on the impact of clearing, machinery traffic and burning on this species, since no studies have been located to clarify its population, extent or habitat needs.

2.4 Ecological landscape function

It is notable that species such as Northern Corroboree Frog and land burrowing crayfish, which require two or more adjacent communities of different structure as part of their life history, have used Blundells Flat for habitat. This is likely to reflect the extent of woodland, forest and heaths which directly adjoin open meadows or wetland soaks. Complex and convoluted boundaries between these structures provide numerous and diverse transition zones which may support both species of adjoining communities and species found only or primarily in transition zones.

There have been several opportunities to identify and list nationally important wetlands in the ACT. Although higher altitude wetlands and more recently a lowland wetland have been included, in one analysis (Evans & Keenan 1992) the complex at Blundells was passed over because it was 'extensively altered, and very little of its native vegetation remains'. Subsequent analysis appears not to have reviewed this assessment. Although this suggests very limited field checking, the record of a small breeding population of Corroboree Frog was noted.

Similarly, there has been limited recognition of the ecosystem services provided by such an area high in the catchment in filtering of flow and improvement of downstream water quality. Recent

field work took very little time to locate peat in the wetland. This significant value had previously escaped notice, probably because nobody had checked.

Although biodiversity conservation is supposed to be tenure blind, it is interesting to speculate whether the natural values of the flat and wetland would have received greater attention and recognition if they had not been located within a commercial pine forest.

3 CULTURAL VALUES

3.1 *Having food in high places*

The traditional and continuing Aboriginal owners of the area are the Ngunnawal people. They are descendants of the local people referred to as the Kamberri, whose name was ultimately ascribed to the national capital. The home range of the Kamberri appears to have extended from Lake George in the north-east to the headwaters of the Murrumbidgee in the south-west (Jackson-Nakano 2001).

There are sensitivities in interpreting and discussing the cultural heritage of Aboriginal people from a non-Aboriginal standpoint. The following account relies solely on previously published material, and may not represent the views of traditional owners.

A large surface campsite recorded at Blundells Flat has been interpreted as a montane valley camp associated with seasonal exploitation of Bogong moths (*Agrotis infusa*), which make an unusual annual two-way migration (Flood 1980). The moths breed across northern NSW and southern Queensland and migrate in spring and early summer to higher elevations in southern NSW and Victoria, returning north in late summer and early autumn to begin their breeding cycle.

Large flights of moths descend on the mountains of the ACT from September to November. They occupy temporary 'camps' among rocks and logs before moving to more permanent 'camps' above 1,300 m asl in clefts and small caves. Massed together, the moths provided a seasonal food supplement for Aboriginal people. The moth harvest was the focus for large scale seasonal migrations to the mountains by other Aboriginal groups, with associated trade and significant ceremonies (Flood 1980). This story is sufficiently potent to have inspired installation of Bogong Moth sculptures between the National Museum of Australia and the Institute of Aboriginal and Torres Strait Islander Studies in Canberra.

Blundells Flat lies about 700 m (and a two hour walk) below Mount Coree, where Bogong moths have regularly used scree slopes and logs as a temporary 'camp'. The Aboriginal campsite at the Flat was notable for its extent and the large number of artefacts, which suggested occupation by larger groups of people. It offered a departure point for exploiting moths on Coree and several other nearby peaks, although its diverse vegetation structures would probably have offered an abundance and wide variety of both plant and animal foods throughout the year (Flood 1980).

It is likely that a pathway ran between Blundells Flat and Uriarra to the east, documented as the site of Aboriginal moth 'feasts' in the period following white settlement. The McDonald family, who settled there in the 1830s, recorded that a large flat rock by the stables was known to Aboriginal people as Urayarra, said to mean 'running to the feast'. Bogong moths were brought here and cooked on the rock which had been heated by fires built on it (Gale 1927). The closest moth 'camp' to Uriarra is Coree, best exploited from Blundells Flat. Although Uriarra and Blundells may appear to be worlds apart because of the ranges between, foot access between the two along Condor Creek requires a 10 km walk rising only about 120 m in elevation and with reliable water.

This places Blundells Flat in the centre of a regional seasonal pattern of Aboriginal movement and activity which has been well documented, as has the presence of a large surface campsite. Despite this, there appears to have been little recognition of the need to protect the campsite, which has been subsequently (perhaps frequently) disturbed.

3.2 *Riding off the edge of the map*

The same landscapes that attracted Aboriginal people to the Blundells Flat area were a magnet for European settlers. The first feature in the area to appear on an official map was Mount Coree,

shown as 'Pabral' on Surveyor-General Mitchell's 1834 map of NSW, in splendid isolation between the Murrumbidgee and Goodradigbee Rivers. Its location was not quite correct, probably because it could not be triangulated with other peaks, situated as it was at the edge of the map and beyond the Nineteen Counties and limits of settlement.

The earliest written accounts of the area arose from journeys by T.A. Murray of Yarralumla on the Canberra plain, who had first held land at the north-west corner of Lake George. Both there and at Yarralumla, Murray formed close friendships with Aboriginal people and became fluent in the local language (Wilson 1968), both places lying within the range of the Kamberri group.

Although Pabral (Coree) was clearly visible from the Canberra plain, the route to it and beyond it may not have been obvious due to intervening ranges. But local Aboriginal people would have known the route to the flat below the peak and may have shown it to settlers. In 1838 Murray recorded that he followed the Cotter River and the winding, narrow course of Condor Creek to the crest of the mountain range before the steep descent to his outstation 'Berindabella' on the Goodradigbee River (Wilson 1968). This route would have taken him through what is now Blundells Flat.

He repeated this early in 1839 to locate reliable high country pastures for his stock. A reference to following 'the marked tree line' signified that the route long known to Aboriginal people by memory had now been blazed for a new wave of travelers. Murray passed beyond Brindabella to Coolamine, where he decided to establish an outstation, and continued in an extensive exploration to the Tumut River. Such journeys through the mountains became regular events, all marked by use of the route along Condor Creek. In March 1841, after camping at 'Condor', Murray climbed the peak of Pabral (Coree), noting that his party included an Aboriginal person (Wilson 1968). In most of his explorations and journeys Murray was probably accompanied by local Aboriginal people, although their presence was not always mentioned specifically.

Murray went on to higher office, serving in both houses of the NSW Parliament and receiving a knighthood in 1869 (Wilson 1968). His high profile had been built on his prosperity at Lake George, Canberra and Coolamine. We can only speculate on how much his fortune had depended on the willingness of local Aboriginal people to share their knowledge of suitable pastures and stock watering points in a vast mountainous landscape, beyond the edge of any published map.

3.3 *From Condore to Blundells – closer settlement*

In the 1860s a series of legislative reforms ('the Robertson Land Acts') enabled small settlers to select areas which had previously been the domain of wealthy squatters. The earliest selection in Parish Tidbinbilla, County Cowley was 40 acres in the middle of what we now call Blundells Flat, selected by John McDonald of Uriarra. Shortly afterwards, John Blundell selected a total of 560 acres in the area, while his eldest son John jnr (Jack) later selected 320 acres.

The Blundell family, originally from Kent, had arrived at Canberra in 1844, the year after John was born as the first of seven children. John spent his childhood fishing and possum hunting with native boys and had learned to speak some of their language (Bluett 1954), learning bush skills and possibly also pathways through the landscape which would serve him well in time. Pabral (Coree) was the dominant point on the horizon to the west of where John Blundell grew up, although what lured him to select land below that distant peak is uncertain. John had married Sarah Ann McKenzie in 1862 when they were both 19 years old. They were to have eleven children, the birth records indicating that by late 1866 they were resident at 'Condor, Uriarra' (Hawke n.d.). This was an extremely remote location compared with the settlement on the Canberra Plain.

Their isolation is reinforced in an account of a journey taken in 1875 by journalist John Gale. He described traveling from the McDonald homestead at Urayarra 'via a tortuous glen, in the course of half a mile crossing a mountain stream [Condor Creek] four or five times ... along slippery sidelings, and through deep gullies, till another hour's ride brought us to the mountain homestead of Mr. John Blundell'. Gale commented on the remoteness of their 'solitary homestead', noting that Mrs Blundell and the children 'seldom saw or traveled beyond the circumscribed horizon which girts their home in the quiet and lovely glen' (Gale 1903).

The property remained remote for decades, with no built crossing over the Murrumbidgee to connect it with Canberra until a low level bridge was opened at Uriarra in 1901. Gale would have used the punt which operated from the late 1850s at Uriarra to provide access to the Kiandra gold diggings via Brindabella, saving about 60 miles on the route via Cooma (Lea-Scarlett 1968). The link to re-use of the old Aboriginal pathway and Murray's 'marked tree line', this time by miners and others bound for the gold fields, was echoed in Gale's writing. He noted that after leaving the Blundell homestead his party ascended the range via a mountain track 'originally cleared by Mr. John McDonald [of Urayarra] ... as the most direct route to Kiandra, in the days when the *auri sacra fames* [cursed hunger for gold – Virgil] of the Alpine regions and the Snowy River had reached its highest pitch' (Gale 1903). Later again, in 1887 a Travelling Stock Route was reserved on much the same route, which was used until bench-and-batter engineering provided a lower grade.

Meanwhile, back at the Flat, the last birth to John and Sarah Blundell was registered in 1884. The circumstances are unclear, but Sarah left the area to go to Sydney, probably with some of their children. John began to father additional children by the widow of his brother Abraham, Phoebe Anna (née Shumack), who already had four daughters. John and Phoebe appear to have had two sons and four daughters together, with births registered at Condor from early 1899. The death record of a daughter shows that they remained at Condor until at least April 1916 (Hawke n.d.).

As if they were not already a long way from the rest of the Blundells, John's family had begun to turn westward early in the 1900s, when some of John's sons acquired about 10,000 acres near Nottingham. John and Phoebe followed before the end of the Great War, retiring to 'Forest Lodge' at Tumorrana, near Wee Jasper. The vast majority of Blundell baptisms, marriages and burials had taken place at St John's, Canberra, whereas John and Phoebe, now west of the Brindabellas, attended All Saints', Tumut, and they lie buried at the Tumut cemetery (Hawke n.d.).

No physical structures remain from occupation of the Flat by McDonalds or Blundells. All were removed or lost to fire during forestry operations, and the extensive orchard of the Blundell farm was lost in a 'clean up' in the 1980s or 90s. All that remain are two piles of debris and soil, supplemented by recent rubbish, and occasional fruit trees, hawthorns and garden plants. Increased ground visibility after the January 2003 wildfire revealed a wide spread of small items including pieces of iron bedstead and fragments of decorated china and glass, since reclaimed by vegetation.

3.4 *Marking Territory*

The westward migration of the senior Blundells was accelerated by establishment of the Federal Capital Territory. The site was chosen in 1908 and two years later NSW formally ceded the land to the Federal Government. Canberra was announced as the name for the capital in March 1913 and three months later lands below Coree were acquired from the Blundells and McDonalds. It is likely that their departure followed quickly, since these lands were situated in the catchment for the new capital's water supply, impounded by Cotter Dam from 1915.

The survey of the border had been commenced in 1910 by Surveyor Sheaffe, who started with a straight line bearing from Mount Coree to the Murrumbidgee River. This line was enshrined in legislation to incorporate all of the Cotter catchment. A number of maps of the time were vague on detail around Coree, suggesting that Coree Creek was sourced on the eastern side of that peak. However, as early as 1871 the map of County Cowley showed Coree Creek originating about 4 km north of the peak. Surveyor Sheaffe may have been rather surprised as he followed his compass bearing over rugged hill and down dale to find, not far from his starting point, a small stream running from left to right and then a much larger Coree Creek doing the same (Higgins 1996).

Because of this oversight, a large area of the Cotter catchment had been left outside the Territory boundary and would require additional surveying. This task fell to Surveyor Pulver, who started at Coree and followed about 12 miles of ridge to rejoin the straight line boundary surveyed 16 years earlier by Sheaffe. Pulver later wrote an account of his task, complete with photographs (Pulver 1981). Pulver's survey enabled the Commonwealth to acquire a little over 2,500 acres in 1927 to complete its control of the Cotter catchment.

Coree also served as the starting point for Surveyor Mouat who had been engaged to speed up the border survey by heading south along the Brindabella Range and the head of the Cotter until he could meet up with Sheaffe proceeding down the eastern side of the Territory, which he did in 1915 (Higgins 1996). The ACT border survey markers emplaced by Sheaffe and Mouat were comprehensively recorded in the mid-1990s, but most or all of the wooden markers and blazed trees on the western and north-western borders were destroyed in the January 2003 wildfires.

3.5 *Seeing the forest for its trees*

Although the first 'Federal use' of the area below Coree was protection of the Cotter water supply, other uses soon followed. Commercial softwood forestry in the Territory grew out of the program of landscape enhancement in Canberra, which included planting of conifers at Stromlo and Green Hills. Trees were also used to control erosion in some areas, and use of pines on slopes near the Cotter Dam encouraged plantation establishment from the late 1920s. By 1940 more than 1,000 acres per annum were being planted to pine, mostly *Pinus radiata* (ANU 1973).

These developments were associated with the emergence of forestry as a science. The Australian Forestry School was formally created in 1925 and two years later moved to Canberra. From that point until 1944 the Principal of the School was C E Lane-Poole, who had been appointed Forest Advisor to the Commonwealth Government in 1925 and Inspector-General of Forests in the Commonwealth Forestry Bureau from 1927 (ACT Government 1992).

One of the functions of the Forestry Bureau was to establish experimental stations for the study of silviculture and forest management (Carron 1985). Some 34 arboreta were established from 1928 to 1969 to test species for production aimed at reducing Australia's dependence on imported timber, particularly softwoods. Most were in the Brindabella Range from 640 to 1,700 m asl. The trials confirmed the superiority of *Pinus radiata* but there was a desire to identify a substitute in case the industry became vulnerable to a pest or disease affecting that species (Higgins 1995).

The Blundells Flat arboretum was commenced in 1929, the first upland arboretum and also the largest (6.1 ha) and most diverse (Chapman & Varcoe 1984). Much of the establishment work at Blundells was carried out by students of the fledgling Australian Forestry School (Higgins 1995), which had one of its earliest camps there in September 1927, recorded in images held at the Australian Archives. This marks a notable and enduring link between education and research.

Commercial logging of native forests below Mount Coree began in the 1940s. This involved selective felling of mainly Brown Barrel (*E. fastigata*) and also Alpine Ash (*E. delegatensis*), Mountain Gum (*E. dalympleana*) and Ribbon Gum (*E. viminalis*) (Higgins 1995).

From 1959 to 1963 poplars were planted in an arboretum to test species that could improve availability of matchsticks (splints). The mid-1950s also marked the initial establishment of pine plantations in this area. However, concern at increased turbidity in the water supply due to forestry operations led to a cessation of new plantings in Uriarra in 1961 (ANU 1973), with hardwood logging also ceasing in the early 1960s (Higgins 1995).

The first official recognition of the heritage value of the Blundells Arboretum came in its listing on the ACT National Trust Register of Classified Places (pre-1982). Its value for education and passive recreation was recognized in the 1990s with development of an interpretative trail connected by a footbridge to the site of the Blundell farmhouse. In 2000 a citation was prepared to enter the arboretum on the ACT Interim Heritage Register, noting that it contained 76 species of 18 different genera in 97 plots, including species which are rare, uncommon or unusual in Australia, and hybrids developed by the world's leading forest geneticists of the time (Fearnside 2000).

At least one plot in the Blundells arboretum was planted with trials of eucalypt (blue gum) species, marking a shift in research enquiry. In 1992 a native seed nursery for threatened eucalypts was begun at the Flat by CSIRO, and in the same year native trees were planted with Uriarra Primary School, which was at that time part of the Uriarra Forestry Settlement. This new emphasis on eucalypts also involved testing of species indigenous to the Flat, with the local provenance of *E. viminalis* proving to be a well performed plantation subject suitable for farm forestry.

As a result of the January 2003 wildfires all areas of pine plantation were killed, most trees in the conifer arboretum were killed (although some species demonstrated an ability to re-sprout), all trees in the poplar arboretum were killed (with prolific suckering), and the CSIRO and school plantings of eucalypts were burnt but produced lignotuber regrowth. All facilities were destroyed or rendered unsafe, including barriers, the footbridge, picnic tables and interpretative signs. On the plus side, increased ground visibility for a time enabled location of traces associated with forest research or production, such as remains of rabbit proof fencing and *terra cotta* potsherds.

3.6 Recreation

From the 1920s and 30s keen bushwalkers from the fledgling Canberra used the Flat, despite difficult access, as a base for summer walking in the Brindabellas (Allen 1977). Many of the same enthusiasts formed a ski club based at Mount Franklin to the south, with cleared ski runs, tows, and a chalet opened in 1938. Forester C E Lane-Poole was a stalwart supporter (Higgins 1994).

With improved access and shifting patterns in recreation, later years saw an expansion in the range of uses to which the area was put and also in the distance people would travel to use it. Coree appeared in the first rock climbing guide to be produced in NSW (and probably in Australia) in 1963, and one current guide describes more than fifty climbs on this mountain. Other uses have included canyoning in locations to the north, mountain running from Blundells Flat to Coree summit, orienteering and mountain biking, and motorised pursuits with four-wheel-drive vehicles and trail bikes. Most of these have used the Flat as a starting point. Concurrently, the area has experienced an increase in passive nature based recreation focused on the Flat itself.

Although the January 2003 wildfires altered the forest environments used for recreation, most scenic elements remained and became more visible, while access tracks were quickly re-opened and were less restricted for a time. The Franklin ski chalet and most related infrastructure was destroyed, while vandals took advantage of burnt access barriers to dump rubbish and destroy cars at the Flat, some being rolled directly into the wetland and Condor Creek.

3.7 Re-shading the map

Apart from listing of Blundells Arboretum by the National Trust, the earliest official recognition of heritage values in the area came in March 1984 with entry on the Register of the National Estate of the 'Northern Brindabellas', about 2,500 ha within the ACT but not including Blundells Flat.

Further south, Namadgi National Park was gazetted in October 1984, transferring management responsibility for the upper Cotter catchment from the then (Commonwealth) Department of Capital Territory's Forests Branch to the Land Management Branch. Forests Branch retained responsibility for the lower Cotter catchment, including native forests which adjoined pine plantations. Both branches became part of the new ACT Parks & Conservation Service around this time, providing coordinated management of all ACT open space 'from nature strips to wilderness'.

This persisted after introduction of ACT self-government in 1989, until ACT Forests became a Government Business Enterprise (later a Territory-Owned Corporation). Under this model the organisation was at times unable to address much beyond economic production, with variable performance in the provision of recreation opportunities and other community services, while coordination between agencies in management of biodiversity, pest species, fire and recreation became inherently more difficult. subsequent shifts in government policy did modify this trend, although more in degree than direction.

Within this period, and following strenuous campaigns to protect the native environments of the lower Cotter, Namadgi National Park was extended to the north in 1991, with boundaries largely defined by the interface with plantations. Blundells Flat was not included in the park despite at least one study (Fraser 1988) documenting diverse conservation values and recommending its inclusion, along with phasing out of adjoining plantations. Forestry managers did not welcome the attendant reduction in production area. Park managers, too, may have resisted it, being already overstretched and not eager to inherit erosion, weeds, forest tracks, and intensive recreation. In the end,

the lobby group which had commissioned the study of values did not press its case for the addition and associated land use changes.

After Blundells Flat was excluded from the park, there was little apparent recognition and protection of its conservation values within the commercial forestry estate. It appears to have been a victim of physical geography and past land use decisions.

Prior to gazettal of Namadgi, investigations just across the border in NSW proposed establishment of the Brindabella National Park on the basis of landscape, cultural heritage, biodiversity, catchment and recreation values. This was delayed for nearly two decades by objections from the Department of Mineral Resources but in 1996 two discontinuous segments were gazetted. Five years later the park was extended to link via an extended Bimberi Nature Reserve to Kosciuszko National Park, providing continuous protected areas adjoining the western NSW-ACT border extending 60 km from Blue Range, taking in the once-overlooked part of the Cotter catchment, past Coree and along the entire length of the Brindabella Range.

Recognising common values, continuity, and the need for coordination, all of these areas are now elements of the Australian Alps national parks agreement between governments of the ACT, NSW and Victoria, and the Australian Government.

The January 2003 wildfires affected most of Namadgi and Brindabella National Parks, as well as 468,000 ha of Kosciuszko National Park and 1.04 million ha of the Victorian Alps, while ACT Forests lost 11,000 ha (two-thirds) of its plantation area. In the face of government decisions precluding re-establishment of pine plantations within a fire abatement zone close to Canberra, ACT Forests had to abandon any ambitions of a self-sufficient ACT softwood industry.

As a result, ACT Forests is again one of several public land management agencies working in a coordinated fashion to meet multiple community objectives. In this scenario, softwood timber production has become a tool for managing strictly defined areas at distance from the city, rather than being the primary objective for the organisation.

3.8 *Something in the water*

In the aftermath of the January 2003 wildfires, and prompted also by the realities of protracted drought, the ACT has produced a plethora of planning documents and strategies. Many of these have promoted the opportunities provided by a 'clean slate' to rethink the way landscapes are designed and managed, particularly in commercial plantation areas.

Of direct relevance to the Blundells Flat area is a renewed emphasis on catchment protection, particularly in the lower Cotter catchment. Through a new water resources strategy, greatly increased value is to be placed on riparian protection for ecological functions, bank stability, erosion control and buffering, and uses for amenity, recreation and production. The study recommends that stream banks be stabilized, willows removed, in-stream and riparian habitat restored and connected with other habitats, and forestry activities excluded, with a greatly increased effort in water quality monitoring and assessing condition of in-stream and riparian habitat (ACT Government 2003).

Associated with this trend are findings from a study of non-urban lands which recognised that 475 ha of former pine plantation in Uriarra Forest would not be re-planted to pine due to excessive slope, the need for riparian buffers, wildlife corridors, biodiversity and catchment needs, and straightening of boundaries near national parks (ACT Government 2004). Together these measures mean further reductions in areas available for softwood production, and the need for rehabilitation of former plantation areas at costs significantly higher than would be required to re-establish pines.

Part of the response of ACT Forests to this changed environment has been expanded community engagement in reshaping former plantation areas, beginning with native revegetation in riparian zones and wildlife corridors in partnership with Greening Australia. ACT Forests is also working closely with interest groups such as the Friends of ACT Arboreta, and over time this may lead to additional community groups supporting the agency in specific themes, places or catchments.

4 CONCLUSION

In the multi-layered stories unearthed by this community initiative, the Blundells Flat area has emerged as a compact illustration of ways in which changing social and political contexts can affect forest management.

After thousands of years of Aboriginal history, of which much remains to be learned, in the post-settlement phase it embodies a complex sequence of themes. The first recorded phase over some 80 years began with journeys by notable settlers seeking pasturage and opening up economic routes which were then used by waves of hopeful miners, through a period of closer settlement and selection which illustrates the isolation and hardship endured by large families of modest means.

Federation of Australia ushered in the 20th century and brought to this area the Federal Capital Territory, and a new phase involving resumption, border survey, education and research, and commercial hardwood and softwood forestry.

As the 20th century drew to a close, education and research was turning from pines to eucalypts, and commercial forestry began to yield to growing concern for biodiversity conservation and catchment protection, with new and expanded national parks and more stringent constraints on land management practices. These shifts in values assumed even greater prominence as the 21st century dawned, marked by years of drought and the dramatic wildfires of 2003.

For half a century many of the values of Blundells Flat were largely overlooked during these developments, seemingly due to repeated failure to check the literature or to check in the field or to ensure that conservation of natural and cultural heritage was blind to tenure. The ACT did not take adequate advantage of its small scale, reduced layers of government, and high level of skills and planning capacity, to avoid such an unfortunate outcome.

Today there is much talk of a 'clean slate', an unprecedented level of awareness of the need for conservation and protection, and acceptance that commercial softwood forestry is not the primary consideration in management of the Cotter catchment.

We have the opportunity to invest in the Blundells Flat area as a major recreational, interpretative and educational resource, within easy reach from Canberra. It offers a teaching example of ways in which management of production forests is evolving to incorporate objectives for biodiversity conservation and catchment protection, hopefully infused with active community participation. It also lies adjacent to the northernmost parts of the Australian Alps national parks system, and is a major recreational node for people using those parks.

The ACT Heritage Grants Program has recently made available funds to prepare a Conservation Management Plan and Interpretation Plan for the natural and cultural heritage of the area, and this may lead to citations to the ACT Heritage Register in either or both of these categories.

Perhaps now the stage is set for the Blundells Flat area to receive the recognition that its values deserve – no longer a Cinderella, sleeping in the ashes.

ACKNOWLEDGEMENTS

The Friends of ACT Arboreta received a grant from the ACT Bush Fire Recovery Taskforce to carry out the study (Butz 2004) on which this paper is based. Numerous contributors are gratefully acknowledged in that study.

REFERENCES

- Allen, C. (1977). *Hiking from early Canberra*.
Andrews, E.J.(1992). *Major Mitchell's map 1834: the saga of the survey of the Nineteen Counties*. Hobart: Blubber Head Press
ACT Government (1992). *Canberra's suburb and street names: Canberra Central – origins and meanings*. Canberra: Department of the Environment, Land & Planning

- ACT Government (1997). *Corroboree Frog (Pseudophryne corroboree): a vulnerable species: Action plan No.6*. Canberra: Environment ACT
- ACT Government (2003). *Shaping our Territory - final report: opportunities for non-urban ACT*. Canberra
- ACT Government (2004). *Think water, act water* [3 vols.]. Canberra
- ANU [Australian National University] (1973). *A resource and management survey of the Cotter River catchment*. Canberra: Department of Forestry ANU
- Bluett, W.P. (1954). *The Aborigines of the Canberra district at the arrival of the White man. Paper read to the Canberra & District Historical Society 29th May 1954*. [Manuscript]
- Butz, M. (2004). *Blundells Flat area ACT: management of natural and cultural heritage values. Background study for the Friends of ACT Arboreta*. Canberra
- Carey, A. et al (2003). *Technical Report No.17 - Wildfires in the ACT 2003: report on initial impacts on natural ecosystems*. Canberra: Environment ACT
- Carron, L T (1985). *A history of forestry in Australia*. Canberra: ANU Press
- Carron, L T (2000). *A brief history of the Australian Forestry School*. Canberra
- Chapman, B. and Varcoe, A. (1984). *A guide to arboreta in the Australian Capital Territory*. Canberra: Royal Australian Institute of Parks & Recreation (ACT Region)
- Department of the Capital Territory (1975). *Mountains, slopes and plains: the flora and fauna of the Australian Capital Territory*. Canberra: Australian Government Publishing Service
- Evans, L. and Keenan, C. (1992). *Directory of important wetlands in Australia: wetlands in high altitude areas of the Australian Capital Territory. Report to ANPWS by the Wildlife Research Unit, ACT Parks & Conservation Service*. Canberra
- Fearnside, A. (2000). Interim Heritage Places Register – Draft citation for Blundells Arboretum, Uriarra Pine Forest (Plots 1-82, 101-106 and 117-122) [unpublished].
- Flood, J. (1980). *The moth hunters: Aboriginal prehistory of the Australian Alps*. Canberra: Australian Institute of Aboriginal Studies
- Fraser, I (1988). *The Northern Cotter Catchment ACT: a case for its conservation and reservation*. Canberra: National Parks Association (ACT)
- Gale, J. (1903). Six days on the mountains of Cowley. Reprinted in Barrow, G. (1985) *John Gale's Brindabellas and Australian Alps*. Canberra: Dagraja Press
- Gale, J. (1927). *Canberra: a history of and legends relating to the Federal Territory of the Commonwealth of Australia*. Queanbeyan: A M Fallick & Sons
- Hawke, Alan n.d. Manuscript notes on Blundell family [Canberra & District Historical Society holding].
- Higgins, M. (1994). *Skis on the Brindabellas*. Canberra: Tabletop Press
- Higgins, M. (1995). *Bulls Head and the arboreta: an oral history project conducted by Matthew Higgins*. Canberra: National Estate Grants Program/National Trust of Australia (ACT)
- Higgins, M. (1996). *Surveyors at the snowline: surveying the ACT-NSW border 1910-1915*. Canberra: National Estate Grants Program/National Trust of Australia (ACT)
- Horwitz, P. (1990). A taxonomic review of species in the freshwater crayfish Genus *Engaeus* Erichson (Decapoda:Parastacidae). *Invertebr. Taxon.* 4:427-614
- Jackson-Nakano, A. (2001). *The Kamberrri: a history from the records of Aboriginal families in the Canberra-Queanbeyan district and surrounds 1820-1927, and historical overview 1928-2001*. Canberra
- Lea-Scarlett, E. (1968). *Queanbeyan: district and people*. Queanbeyan Municipal Council
- NCDC (1984). *Ecological resources of the ACT: Technical Paper 42*. Canberra: National Capital Development Commission
- NCPA (1989). *Sites of significance in the ACT: 8 – Cotter Catchment*. Canberra: National Capital Planning Authority
- Pulver, A. P. (1981). A surveyor's story of Canberra. [Manuscript]
- Riek, E.F. (1969). The Australian freshwater crayfish (Crustacea:Decapoda:Parastacidae), with descriptions of new species. *Aust. J. Zool.* 17:855-918
- Rowell, A. and Crawford, I. (1995). *Survey of the morabine grasshopper Keyacris scurra (Rehn) in the ACT. Report to Wildlife Research Unit, ACT Parks & Conservation Service*. Canberra
- Wilson, G. (1968). *Murray of Yarralumla*. Melbourne: Oxford University Press
- Yen, A.L. and Butcher, R.J. (1997). *An overview of the conservation status of non-marine invertebrates in Australia*. Canberra: Environment Australia