



Conservation & Natural Resources

Eastern Barred Bandicoot Recovery Program



Zoological Board of Victoria

PROGRAM UPDATE

It has been quite a while since progress on the recovery program was reported in the last newsletter. Probably the best news was the breaking of the drought in early autumn. While bandicoots generally remained in good condition over the dry summer reproduction was well down. However once the rains came, bandicoots started breeding again and recent monitoring has indicated good reproduction at most sites.

The three new reintroduction sites started in spring 1994 (Floating Islands reserve, Lake Goldsmith reserve and 'Lanark') are progressing well, with bandicoots surviving and breeding at all sites. A new recovery plan for 1995-96 is nearly complete. The major emphasis will be on consolidating the newly reintroduced populations, by supplementing these with additional releases during spring 1995, using captive bred bandicoots as well as animals translocated from Gellibrand Hill Park. The population there continues to do extremely well, with probably well over 500 animals in the nature reserve. Read the update later on for more information.

Several staff changes have occurred since last newsletter. Dr. Rosie Booth from Melbourne Zoo left to take a position at Currumbin Sanctuary. Greg Thorpe, the bandicoot ranger at Gellibrand Hill Park, recently left to continue his studies. Both Rosie and Greg devoted considerable time and energy to the recovery program, and will be sorely missed.

On the welcome side, Steve McDougall has taken up the reins at Colac CNR for bandicoot matters. In a major "coup" for the recovery program, Amanda (Mandy) Watson (a former bandicoot ranger at

Gellibrand Hill Park) recently returned to Victoria after a stint in the Northern Territory and will be working with Peter Goldstraw on bandicoot conservation in the Hamilton district. It was probably the benign Western Districts climate that drew Amanda back to Victoria, away from the oppressive heat of the deep north. National Park Service ranger Marcia Johns joined the recovery program and is now responsible for bandicoot reintroduction at Lake Goldsmith reserve.

Gary Backhouse and Gary Slater.

FRIENDS OF THE EASTERN BARRED BANDICOOT

'Friends' actively participated in the Hamilton monitoring and have continued the Parklands fox control program on a weekly basis since December.

A special meeting of the 'Friends of the Eastern Barred Bandicoot' in May was addressed by Gary Slater and Merrill Halley from Healesville Sanctuary. They gave a very informative talk on endangered species captive breeding programs and zoos generally. Mandy Watson from the Warrnambool office of Department of Conservation and Natural Resources addressed the August meeting to discuss the Domestic (Feral and Nuisance) Animal Act 1994 in relation to cats and options for cat control in bandicoot areas.

It is encouraging to hear reports of bandicoot breeding in the wild population from Hamilton residents.

"Friends of the Eastern Barred Bandicoot" membership enquires to; Bob Korlowski, RMB 8640, Hamilton. 3300

HAMILTON COMMUNITY PARKLANDS

Hamilton has seen a few landmarks reached in the Eastern Barred Bandicoot recovery program in the last year. When I first became involved with the program in 1989 I was the Gellibrand Hill Park 'Bandicoot Ranger'. It was part of my job to travel to Hamilton to collect bandicoots to take back to Melbourne for the breeding program and then back to Hamilton for release.

Other happenings in and around Hamilton in the last year include a change to the technique for monitoring the Parklands population and the establishment of another new colony in the area.

The monitoring previously used at Hamilton, required a lot of organising and a large amount of resources for the amount of information we were able to gain. The new method makes better use of our limited resources and gives us a better idea of trends in the population. Transect lines are now used rather than a grid. Traps are set over two consecutive nights instead of five, and monitoring carried out four times a year rather than two. This technique reduces stress on captured bandicoots by reducing the number of consecutive nights they could potentially spend in traps at each monitoring program.

The new monitoring method was introduced for the first time in October 1994 and only four male bandicoots were caught at that time. Seven were caught in March 1995 but only one was female and no breeding was observed. Interestingly this was also observed in the Gellibrand Hill Park and Mooramong colonies. These poor results may have been due to a combination of factors such as the change to the monitoring technique (ie: fewer traps set), the extremely dry season and the uneven sex ratio in the population (the reasons for this have not been determined).

At the time of monitoring there was at least one fox present which simply would not take a poisoned bait. This animal was recently shot following a number of hunts organised by the Friends group. Carl Millard also shot a large ginger cat in the enclosure recently. We are still puzzled as to how

these animals are entering the area and are currently looking at the possibility of upgrading the fence. Meanwhile baiting with Foxoff and fence patrols will be increased.

This year we were fortunate to receive a significant boost to the Hamilton population from the captive breeding program. A total of twenty eight bandicoots bred at Melbourne Zoo, Healesville Sanctuary, Kyabram Fauna Park and Monarto were released into the Parklands in two separate groups in April and May. In an attempt to address the imbalance in the sex ratio, nineteen of the twenty eight released were female. The results of the June 1995 monitoring were much better as a result of this influx and a good Autumn break. Fifteen bandicoots were captured and this time, five were female with three observed carrying pouch young. There was a 25% recovery of newly introduced bandicoots, which it is anticipated will increase over time with the new monitoring method.

In addition to this release of bandicoots at the Parklands, some were 'returned to the wild' for the first time. Two males and a female were released at the Parklands in May. These animals were bandicoots that had 'done their time' in the formal captive breeding program. One of them originally came from the Hamilton Community Parklands colony before being taken in for breeding.

Perhaps the most positive and exciting event in the Hamilton area in the last year has been the establishment of an additional wild colony on private property near Branxholme.

Mandy Watson
FFF Management Officer
Warrnambool

GELLIBRAND HILL PARK

Time marches on and history continues to be made at Gellibrand Hill Park (proposed Woodlands Historic Park) with three major developments occurring throughout the 1994-5 summer period.

The first event happened in December when the EBB program's Captive Management Group initiated

a trial release of five Eastern Barred Bandicoot's directly from the captivity to the Back Paddock (Nature Reserve) at the park. The bandicoots received only basic exposure to wild foods such as worms, while held at Melbourne Zoo and Healesville Sanctuary. The animals were then radio-tagged and tracked for a month after release.

Four of the five bandicoots were successfully trapped 20 days after release. Of the four, three had lost 3% of body weight compared to their release weight and one had lost 8% of body weight. The crucial limit for weight loss is -10%. The fifth EBB's radio signal failed, at about day 10 of the trial, and the animal and transmitter have not been relocated to date. Predation by fox or cat is feared to be the cause of its disappearance.

The trial was conducted in some of the worst of the available bandicoot habitat within the Back Paddock, during the height of the drought in over 30 degree temperatures. Given that the majority of the bandicoots survived the crucial first 20 days after release, in these less than optimal conditions, and that they showed good health throughout, the trial was declared a success.

The success of the trial is an important step, as the previous procedure for transferring EBBs from captivity to the wild required that they spend at least 4 weeks acclimatising to wild food and nesting sites while being held in the pens at GHP. This, in turn, required staff to artificially feed the EBBs; to trap them; monitor them for signs of health change; constantly maintain the old and deteriorating fences holding them in; and progressively update a database and keep records on them.

The success of the trial has now allowed both the Field Management Group and the EBB Program Review meeting to agree to cease using the pens at GHP and move to direct-from-zoo releases to field sites on a broader scale.

The pens at the park were originally much larger, being built in the early 1980s to hold Eastern Grey Kangaroos. They were first adapted for use as bandicoot breeding enclosures in 1988, when the

first of the founder bandicoots for GHP were removed from the remnant wild population at Hamilton. The pens were then expanded as the program feverishly continued to breed up new founders for release to the Back Paddock.

Managing breeding in the pens became difficult in the early 1990s when the size of the pens; the amount of grass and shrub cover in them; and the constant problems with security (ie. holes in fences), made it difficult to relocate newborn EBBs that had left their mothers pouch. This in turn led to the decision to hand the breeding role from CNR to the Zoological Board and to alter the use of the pens for holding and acclimatising EBBs only.

Now, after 7 years of intensive service, it would appear that "the day of the pens" (at least for EBBs) has come to an end at GHP.

On an exciting note, we now have good confirmation of bandicoots having 'broken out' of the Back Paddock in a number of places. During last Spring EBBs were observed at night on our neighbours lands at the Victorian Institute of Animal Science, Attwood. There is also no doubt now that the flavour of the 1840s is returning to "Woodland Historic Homestead" (in the park), where bandicoot digs and scats once more grace the gardens there. This probably has not occurred since the early 1840s when the Greene family migrated from Ireland, complete with house and servants, to establish their pastoral property there. If that's not 'living history', we don't know what is!



*Gellibrand Hill Park, view of woodlands 1860
Photo: A Roberts*

The monitoring at Gellibrand Hill Park in November 1993 resulted in the capture of about 33 individual bandicoots, which translates into a population estimate in excess of 500. A demonstration that the reintroduction had been successful beyond our expectations. Subsequent observations showed the bandicoots have 'gone west, young 'coot' and spread into most of the Nature Reserve. The logistics of doing a week-long intensive trapping over 400ha were considered to be overwhelming. So it was decided to establish a monitoring protocol which involved trapping along selected transect lines for a couple of nights only. This would enable us to follow the population trend and check on the health and reproduction of the animals rather than doing a total count. This 'easy' option took a great deal of time to set up and still we are not really happy with the transect lines - any volunteer surveyors out there? Despite some problems on the day, we got ten transects laid out, the trap sites marked and identified and attracted sufficient enthusiasts to set out 240 traps over some 18km of trapline - the traps were 100m apart. This exercise (and boy, was it that!) took longer than we had hoped and consequently only one full night's trapping occurred instead of the planned two.

We caught 61 individual bandicoots, over about two-thirds of the Nature Reserve. Certain areas, principally open paddock areas near the quarries and over towards the police property in the east did not produce any bandicoots, and our catch was concentrated in the 'better' habitat in the eastern half of the reserve. Of the total, 50 were males, ranging in age from about 70 days to a couple of years. All were in pretty good condition. All females had pouch young or were lactating, with one exception.

However, this female had bred recently. During the long, dry summer just past, breeding had ceased completely, so it was good to see all that activity.

The strong male bias in the trapping return is of concern to us, especially as it has been a precursor to population declines in other areas such as Hamilton. Whether it is an indicator of a population in poor demographic health, an effect of reduced habitat due to over-grazing by kangaroos and rabbits, or simply that the best habitat is occupied by the females and the less-desirable habitat is left to roaming males is unclear at this stage. We will be trying to work out ways of determining this before the next monitoring.

Predator control at GHP is continuous and foxes are kept to low levels, but we have now realised that not all predators have four legs and fur. On the bank of Moonee Ponds Creek stands a tall dead tree, used as perch for birds of prey, notably Whistling Kites. Beneath the tree were the remains of a dozen or so rabbits, several birds and two bandicoots. In theory, the birds are diurnal and the bandicoots nocturnal, but obviously there is some activity overlap. Of interest, two bandicoots released at 'Lanark' last year were also taken by one of the resident Whistling Kites.

Thanks to all those who helped, especially Peter Goldstraw and Mandy Watson from CNR Warrnambool. Mandy was the first Bandicoot Ranger at GHP, so it was a real home-coming for her.

Greg Thorpe, Port Phillip Area.
John Seebeck, Flora and Fauna Branch.



Recovery team members looking for EBBs at Mooramong

MOORAMONG

There have been no further releases of bandicoots at Mooramong since July 1994. Since the last newsletter, the bandicoot monitoring program at Mooramong has been reduced in intensity to four times per year on one-third of the trap stations (60 stations compared to 180). This transect monitoring has been completed for December 1994, March and June 1995. Figure 1 shows the trend in population abundance at Mooramong from January 1994 to June 1995. The population on the transect lines has remained at about 15 animals with males and females in roughly equal proportions. This figure equates to about 35 to 40 animals in the reserve. Some of the founders are still being caught (female H38, released in February 1993, now aged 3 years and 7 months) and there is a gradual turnover of new animals on each trapping occasion. Importantly for population increase, the number of females carrying pouch young has begun to increase significantly from the very low levels recorded during 1994. In June 1995, 57% of females captured were carrying pouch young. Between July 1 1994 and June 30 1995, 43 pouch young were recorded at Mooramong and 12 animals were microchipped as independent adults representing a minimum 28% survival of site bred animals.

Predator control is still a high priority on the property. On Sunday 25 June 1995, Tym Barlow organised a fox drive on the property.

Approximately 25 volunteers from surrounding properties turned up for a BBQ lunch and light refreshments. All plantations, shelter belts and the nature reserve were systematically swept through during the day. Six foxes were put up, but unfortunately only two were shot, a male and a female. Disturbingly, three foxes were found sheltering in the nature reserve. Tym will now concentrate poisoning and spotlight shooting activities in the reserve area, particularly Pennys Block and Cottage Dam. Twenty-eight foxes have been shot on the property so far in 1995 and an unknown number have succumbed to poisoning.

The Lake Goldsmith Land Care Group and the Broken Creek Catchment Group, with financial support through CNR's Good Neighbour Program have recently employed a fox facilitator to coordinate and provide advice on fox control in the district. CNR's Flora and Fauna Branch was able to donate additional funds to purchase Foxoff baits as an additional incentive to implement fox control programs in the area.

The next monitoring of animals will be conducted in September 1995. For further information on bandicoots at Mooramong or forthcoming monitoring activities, please contact CNR Fisheries and Wildlife Officer Jim O'Brien at Ballarat on 053 336 782 or National Trust Ranger Tym Barlow at Mooramong on 053 406 558.

Robert Humphries

Flora and Fauna Guarantee Officer, Ballarat.

TRANSECT TRAPPING MOORAMONG 1994

Number of individual bandicoots caught

	Jan	Apr	July	Sept	Dec	Mar	June	
Founders		4	8	15	12	7	6	5
Wild Bred		3	3	7	7	6	8	6
Recruitment		1	1	1	0	1	4	2

Number of bandicoots caught per 1x 100 trap nights

	Jan	Apr	July	Sept	Dec	Mar	June	
Founders		4.4	8.8	12.9	9.8	6.1	4.2	4.2
Wildbred		3.3	3.3	6	5.7	5.3	6.7	5
Recruitment		1.1	1.1	0.9	0	0.9	3.3	1.7

Number of Eastern Barred Bandicoots Caught per 1x100 Trap Nights at Mooramong Nature Reserve January 1994-June 1995

