



Conservation &amp; Natural Resources

# Eastern Barred Bandicoot Recovery Program



Zoological Board of Victoria

## PROGRAM UPDATE

The Eastern Barred Bandicoot recovery program continues to go from strength to strength. With a total population of bandicoots at Gellibrand Hill Park perhaps 500 or more animals, by December 1993 there were at least 700 bandicoots in all of the captive facilities and field sites. One major challenge for program participants is simply staying on top of the rapid rate of change of the recovery program.

The recovery program is still experiencing staff changes, with Graeme Bowley leaving Gellibrand Hill Park for Benalla, and being replaced by Genevieve Gleeson. Janine McKay, formerly the bandicoot project ranger at GHP, is leaving Victoria for the sunny climes of Cairns and a job on the Great Barrier Reef! Pam Thomas (Friends of the Eastern Barred Bandicoot) resigned from the recovery team (formerly the Convenors Group), and has been replaced by Allan Jamieson representing the "Friends" group. Allan and his wife Jane are recent arrivals in Hamilton and, as keen naturalists, joined the Friends group and have already participated in monitoring at the parklands. Pam, Janine and Graeme have made valuable contributions to bandicoot conservation over the years and their contributions will be greatly missed.

Gary Slater and Gary Backhouse visited South Australia for discussions with their National Parks and Wildlife Service on captive breeding of bandicoots at the Monarto facility. Captive breeding is progressing well at Monarto, and NPWS were able to offer us more space for breeding bandicoots. The two Gary's were also able to brief South Australian scientists on progress of the recovery program, especially the outcome of the reintroduction efforts at Mooramong.

Dr Richard Reading (Northern Rockies Conservation Co-operative and the Yale University School of Forestry and Environmental Studies) visited during January, and worked on a number of bandicoot projects during his stay. Rich gained his PhD working on the critically endangered Black-footed Ferret in the US, which actually became extinct in the wild, and very close to extinction in captivity. From ferrets to bandicoots to yaks, Rich is now working for the United Nations on a biodiversity conservation program in Mongolia! He can be contacted C/O Keldjansaa, PO Box 49/207, Ulaan Baatar, MONGOLIA, and has requested letters and supplies of Cadbury chocolate from his Australian friends to keep him going while he is there. Tim Clark, also from NRCC and Yale, and well known to many bandicoot workers, is planning to visit Australia around November this year, and will no doubt include bandicoots on his itinerary.

Plans to release bandicoots at another reintroduction site have been progressing, but were recently held up due to some unforeseen circumstances. A start was hoped to be made this autumn, but it now looks like spring will be the earliest for another release. Staff from CNR Colac office also inspected possible reintroduction sites, and have prepared a list of these that may be suitable.

The recovery program annual review was held during February, and included participants from CNR Warrnambool, Hamilton, Ballarat and Melbourne, as well as Healesville Sanctuary, Melbourne Zoo and Werribee Zoo. Robert Begg from the Wildlife Management Section chaired the meeting and Rich Reading provided an analysis and summary. Major issues included the rapid rate of change of the recovery program, and the need for timely, flexible and adaptive management. With the large number of bandicoots we now have, a 'window of opportunity' exists, with numbers of bandicoots the highest for perhaps ten years or more. Future directions include defining the window of opportunity and addressing how best to take advantage of it; undertaking a new reintroduction, with appropriate social surveys and community information and involvement; using translocations of wild animals for reintroductions; shifting to extensive management of captive bandicoots; managing all populations as a metapopulation, with regular interchange of animals amongst all field and captive populations; and maintaining and improving predator control at all sites.

Gary Backhouse & Gary Slater

## FRIENDS GROUP

The Friends of the Eastern Barred Bandicoot have been very active during the year, in Hamilton. Members participated in the monitoring of the EBB at Hamilton Community Parklands and fox control around the parklands and the Chatsworth Road area. In March an excursion to Mooramong, gave "Friends" from Hamilton an insight into the work involved in bandicoot reintroductions. Other activities that have contributed to spreading the word about bandicoots have involved assisting school students from around the state to complete projects and assisting teachers in lesson preparations on the species. Guided walks have also occurred in the parklands to view bandicoots at different times during the year. As part of World Environment Day celebrations a very successful working bee was held to do maintenance on the Hamilton Community Parklands fence.

**NEW MEMBERS ARE WELCOME**  
contact: Bob Korlowski (055) 734-574



## HAMILTON COMMUNITY PARKLAND WILDLIFE ENCLOSURE (HCP)

Monitoring was carried out during the first week in May again with the enthusiastic assistance of the Friends group and some regular volunteers. A total of 39 bandicoots were captured including 11 females carrying 14 pouch young. The results again confirm that there is a male bias in the Parklands population and that this imbalance needs to be rectified in the near future.

Overall numbers were down during this monitoring compared with the Autumn and Spring of 1993. This was probably due to a number of factors including a long spell of dry weather, reduced available habitat following a management burn and a significant impact on trapping success by mice and brushtail possums setting traps off.

During the monitoring we were fortunate to have the professional services of two veterinarians. Andrea Reiss from Melbourne Zoo and Ro McFarlane from Healesville were able to render prompt treatment to any bandicoot injuries and to implant microchips into the new animals we encountered.

## CAPTIVE BREEDING

1 - The age of electronics has hit the bandicoot program. All captive Eastern Barred Bandicoots now support the latest technology with each individual having recently been implanted with a microchip which is read by an electronic scanner. This device, currently used widely in zoos and gaining acceptance in veterinary practices and wildlife agencies for identification of animals, works on the basis of an inert magnetic chip being placed under the bandicoot's skin. When the scanner is activated above the bandicoot it activates the chip, sending a number to the scanner. This method is extremely reliable, will last longer than the bandicoot's lifetime, avoids any identification confusion, caused minimal pain to the animal (it is akin to having an injection) and provides the bandicoot program with a safe and secure recording method for all individuals.

We have found the current method of ear tattooing has had its failings, in that they sometimes fade, numbers become illegible if not enough ink is applied, scratching and tearing of ears makes numbers illegible and can sometimes be misread if not holding the bandicoot in the appropriate manner. The new chip implants will avoid all of this. Information retrieval is much easier now because once the scanner has read the chip it can be downloaded straight onto a computer.

2 - Over the past year we have bred over 59 bandicoots in captivity, releasing over 31.

3 - Peter Myroniuk, our studbook keeper, undertook a review of our past year's performance and some of the interesting facts that emerged were:

- i) The majority of bandicoots in captivity are breeding from one year of age in contrast with the capability of breeding at three months of age.
- ii) On average each female left 1.193 female young in the next generation.
- iii) There are 20 wild caught founders living in the captive population.
- iv) 97% of the original wild caught founders' gene diversity has been retained.
- v) Captive births were recorded for all months except November. The peak months being March and October.

4 - The Melbourne Zoo Veterinary Department will be undertaking, over the next few months, a major review of all injuries and mortalities to bandicoots, both wild and captive. This will provide us with an important insight to any trends occurring.

5 - Facilities at Melbourne Zoo are being expanded to include spacious new housing for additional bandicoots.

6 - A recent visit to the Monarto facility in South Australia has demonstrated that their success rate is due to the keenness of staff at the facility. Discussions centred around the possibility of Monarto expanding the number of spaces available to the program. This will also assist us should the preliminary investigations into the feasibility of a South Australian release site prove fruitful, though this may be some years down the track.



*Eastern Barred Bandicoot being scanned.*



## MOORAMONG

In April this year we conducted our first intensive five day trapping program in order to establish accurately the total number of bandicoots in the Mooramong Nature Reserve. The trapping covered all areas of suitable habitat within the nature reserve. A total of 43 individuals were captured over the five days, 23 (or 53%) of which were bred in the wild at Mooramong. The experimental release at Mooramong has now reached the 18 month stage with a total of 60 captive bred bandicoots having been released since December 1992. Departmental staff at Ballarat and Ballarat University are currently examining in detail the history of each animal and their subsequent survival and establishment in the nature reserve to determine if there are any important factors contributing to the survival of animals. For example, does the amount of time in captivity, the season of release, the age of the animals at release or their condition at release have any impact on their chances of being able to adapt and survive in the wild. As the release of animals at Mooramong is an experimental release, these results may have important implications for releases elsewhere in Western Victoria. We'll keep you posted on the results as they come through.

Bandicoots appear to be firmly established in the main part of the nature reserve at about one animal per hectare. It is anticipated that one further release of about 20 animals will be made in the southern section of the reserve in mid June 1994. These animals will be wild bred animals from Gellibrand Hill Park and will not be acclimatised in the pens at Mooramong, hence it will be a straight relocation of wild animals rather than animals bred and reared in captivity.

Intensive predator control activities are continuing on the Property. Tym Barlow, the National Trust ranger at Mooramong, has been busy spotlighting three to four nights per month and is regularly shooting between three and six foxes. Thirty-six foxes have been shot on the property since October 1993 and Tym has seen many more. This is despite an intensive predator poisoning program that has been running continuously for almost two years. The Department's bandicoot team at Ballarat have established sand monitoring pads at all poisoning stations. These "track pads" are providing valuable information on the amount of fox activity and reinvasion rates.

The next major monitoring of animals will be in the September school holidays. For further information on bandicoots at Mooramong or forthcoming monitoring activities, please contact Robert Humphries or Jim O'Brien at Ballarat on (053) 336 782 or Tym Barlow at Mooramong on (053) 406 558.

## GELLIBRAND HILL PARK

A major bandicoot population monitoring exercise occurred over five days during November 1993. About 60 people (the majority being volunteers!) set over 600 traps each night, for a total of 3172 trap nights. The results were rather staggering. A total of 321 bandicoots (163 males, 157 females) were caught in 640 captures during the week; 74 females had a total of 135 pouch young, while another 20 were lactating, indicating young in a nest. Population estimates indicate a total of about 500 bandicoots, a remarkable figure. Given the fact that the trapping grid did not cover the entire nature reserve, and that bandicoot digs have been observed over about 90% of the reserve now, the total population is probably higher than the estimate of 500. The density of bandicoots over the trapped area is also high; about 2.5/ha, probably due to a mild winter and wet spring providing plenty of food and cover. The population at GHP continues to grow strongly, and is crucial to the conservation of the species in Victoria. We will probably start harvesting bandicoots from GHP for release at other reintroduction sites in the near future.

## COMMUNITY WORKING GROUP

The Community Working Group is one of the working groups that supports the Recovery Program. It was formed in 1993 after the Program Review, which recommended that the Human Dimensions and Community Education Working Groups amalgamate.

This group consists of representatives from the Hamilton Community, Hamilton, Ballarat and Gellibrand Hill Park CNR representatives, Melbourne Zoo Education Service Representatives and Gary Backhouse. The convener of this group is Jane Liefman from the Education Service, Melbourne Zoo.

The group is responsible for the following as outlined in the Eastern Barred Bandicoot Recovery Plan for 1994-1997:

- To inform and involve the community in the Eastern Barred Bandicoot Recovery effort.
- To ensure the community support for the program is obtained and maintained.

Statewide community support for the Eastern Barred Bandicoot recovery effort is essential. The community needs to be kept informed of progress of the recovery program.

The Community Working Group has been involved in a number of activities during the year some of these include:

- Finalising the Community Education Strategies for the



following release sites; Hamilton Community Parklands, Mooramong and Gellibrand Hill Park. These strategies form the basis for actions to be taken to increase community awareness about bandicoots. Work has been done with schools, community groups and landholders in these areas.

Another very important aspect of community involvement is the volunteers that assist in the monitoring of the bandicoots, particularly at Hamilton and Gellibrand Hill Park. These are very rewarding activities and a good opportunity to experience the hands on field work that must be carried out that is very important to the success of the Recovery Program.

A very exciting participant in the program is "Bertie Bandicoot". This large bandicoot has been travelling through-out Victoria over the last year. It has made appearances at the Healesville Gateway Festival, the street festival as part of Festival Hamilton and schools in the Skipton Region. Overall "Bertie" is received very well by children and adults alike and provides an excellent opportunity to introduce people to Eastern Barred Bandicoots and their significance as one of Victoria's most endangered animals.

The Melbourne Zoo Education Service has developed material on the Eastern Barred Bandicoot that is suitable for use by Year 12 students doing genetics in Biology. Other programs are available that focus on endangered species and the role of zoos. These are designed to raise awareness and promote thought about what action can be taken to save these animals that are endangered, like the Eastern Barred Bandicoot.

#### HOW CAN THE COMMUNITY HELP

1. Join the "Friends of the Eastern Barred Bandicoot".

2. Contact your local Department of Conservation and Natural Resources (CNR) office for further information.

3. Contact the Zoo Education Service. Offices are located at Melbourne Zoo, Healesville Sanctuary and Werribee Zoo.

4. Remember that cats can harm native wildlife. Keep your cat inside at night.

5. Create a native grassland area. Make sure that the plants are indigenous to your area. Find out what is appropriate by contacting your local nursery or CNR office.

6. Help with the monitoring of the Eastern Barred Bandicoot.

Contact numbers for the different sites are:

Hamilton Community Parklands	(055) 62 4577
Gellibrand Hill Park	(03)333-1185
Mooramong	(053) 33 6782

On a sadder note this year has seen some changes take place in the make up of the Community Working Group. The Recovery Program would like to take this opportunity to thank Pam Thomas for her very valuable participation in this working group and the over all program. Also Geoff Edwards, a member of the Community Working Group and Editor of the Hamilton Spectator, has taken up a new position in Portland on their local paper. Another person who has moved on to new challenges is Graeme Bowley. Graeme has left Gellibrand Hill Park and moved to a new position in CNR in Benalla. Graeme was replaced short-term by Genevieve Gleeson and has now been replaced by Greg Thorpe. Thank you to all these people and all the best for the future.



"Bertie" at the Gateway Festival, Healesville.