The Avicultural Society of New South Wales (ASNSW)
(Founding in 1940 as the Parrot & African Lovebird Society of Australia)
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Regent Honeyeater Release

(ASNSW Meeting - 15th October 2013)

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(from the Taronga Zoo Recovery Team)

So for those of you that don't know what a Regent Honeyeater looks like I brought this one along. This is Snuffy. This was a Regent Honeyeater that we bred at the zoo. It was actually quite old. I think it was probably one of the oldest Regent Honeyeaters that we've had.

Taronga Zoo has been involved in the Regent Honeyeater programme for at least 20 years since about 1993 or '92.

The Regent Honeyeater recovery team I think is probably one of the most successful recovery teams of any Australian species that there is and one of the reasons for that is because they are not just about the birds. It's about the birds plus education and teaching people and trying to change people's attitudes and habits.

It's also about restoring habitat and there are lots of communities that take part in the recovery programme.

Some of the recovery teams that I have been involved in, it has just been the big hob knobs that have been involved in it. It's like someone from National Parks, maybe someone from the zoo, maybe someone from here and there, and they are all upper management maybe, not necessarily the grass roots people. Whereas the Regent Honeyeater's recovery team obviously has those components of people, but it also has people who are interested in the Regent Honeyeater and look after their own business in their own area.

For instance there is a Capertee Valley community of people who do their own thing and look after the habitat in their area and apply for grants independent of the recovery team for the tree planting and work, etc.

There are five or six different community groups from Victoria and New South Wales, and then of course there is the zoo, and the recovery team has been going on for so long there are even people who have absolutely no financial or realistic involvement in the Government or the plight of the Regent Honeyeater from an employment point of view, but they just continue to come to each meeting and they pay for themselves to come, and they have a say in what happens. That is one of the reasons that I think the recovery team is so successful.

Another reason is I find that recovery teams these days start from the beginning with really high goals and set high standards for themselves. Some things like that cost a lot of money and they start to realise how much money it is going to cost and they apply for those grants all at once perhaps, and it's just an unachievable goal.

One of the keepers is writing a paper about the Regent Honeyeater programme at the moment and what we have come to realise is that this is not how this recovery team evolved.

It started off with a very small goal and it really had nothing to do with having them in captivity. It was really about thinking about the Regent Honeyeaters and what we could do for them. That's when they started with habitat restoration.

Then the numbers continued to drop and started to drop quite significantly. So that is when the zoo got involved and they asked the zoo if we could attempt to keep some of them in captivity. Now of course they hadn't been in captivity before so although we thought we could do it, we agreed to get some from the wild just to see if we could keep them. So there was no long term insurance population or anything initially that was part of the goal. Maybe it was a short term goal, but it wasn't really something that everyone had pinned their hopes on. It was just to see if they could in case the worst thing happened and they came to us to see if we could we rush out and grab the last hundred birds from the wild and stop them from becoming extinct like the Tasmanian Tiger perhaps.

Once that happened then we started to breed them, which was the next goal, do you think you could breed them and then you could keep them, and then the next goal was set and next goal was achieved and then maybe around, I can't remember the next date, but they said "do you think maybe we could release some"?

So they got 10 birds together and they released nine.

One of them stayed at the zoo. Of those nine, I think only three were 100% survived; some of them nicked off pretty quick so they are not exactly sure what happened to them. But the release I guess was counted more or less a success because even two or three out of nine birds, although it doesn't sound like it is very high if you compare it to when you release frogs or something like that, you release hundreds and hundreds and hundreds and hundreds and you might have just a couple that survive, so the statistics might not sound so good but the release I think was considered a success.

That was still a long time before my time.

Then in 2008 the recovery team set another goal for the team for the zoo to see if we could do a much larger release and try and learn more. Some of those were to do with harnesses, to put transmitters on the birds, different designs of harnesses. We released 50% males and 50% females. There were 27 birds in all and of those 50% of each 50% of those were under one year or over one year. So we had 50% with back mounted transmitters and 50% with tail mounted transmitters.

Someone sat down very cleverly with some sort of chart and worked out that we could do that – 50%, 50%, 50% roughly – and we released 27 birds.

The release was more than successful. I don't know what the word for that would be but you know before the release or prior to the release we split the birds up into two different groups and we released out of the 27 birds (I'm not sure of the maths), but I think it was 13 the first day and 14 the second part of the release.

We decided that if we released 13 birds and five died then we would continue on. We would not even consider chatting to each other about whether we would go ahead.

If 50% of the birds died we agreed that we would just continue on. That was the plan.

If 80% of the birds died then we would meet and we would discuss the possibility of not moving on and if 90% died then we would consider stopping the release and not releasing the other lot of birds.

Now that was the important conversation to have because after you release the birds and you see them falling out of the sky, then emotions start getting involved and we might question why we are doing this.

There is a lot of science involved in this so individual welfare is a very important thing to us, but so is the group welfare and the welfare of the species. So it is very important to sit down and brass out and make our decisions before we let the birds go so that emotions don't get involved.

Luckily enough we didn't have to worry about that conversation because after the 24 hour period 100% of them were still alive. So then we released the other birds and then 10 days later still 100% of the birds still survived. I think after 10 days one got eaten by a hawk and then one transmitter was found stuffed in a log about a metre up from the ground so we just think it was eaten by something.

From that first release I think it was something like 98% survivorship after three months, or some astronomical number, so that is another thing that made the recovery team happy obviously. But another thing that reinforced the feeling was that we have been very lucky on the recovery team that the momentum has kept going and has continued after the 2008 release.

They had set us a goal and we achieved the goal and we were just sitting around, so we said let's do this again.

We have released them every two years, because that is when they follow the flowers. The flowering in Chiltern is an event that happens every two years normally, and that is where we released them.

We started to ramp up again and then the next release we did was 2013 so obviously there was a three year gap there but that was because we had a big drought and that upset the bi-annual flowering.

Other important things that have happened in this release is that our captive bred wild birds have now been seen returning to the park. We have now released over a hundred birds and I think four to five birds perhaps have been seen. Which again doesn't sound like very many but hundreds of wild birds have been captured and banded and released and one or two, up to five birds a year, of those hundreds and hundreds of birds that have been banded, are re-spotted. So the statistics even though you might say, well four or five birds out of over a 100 released, it doesn't sound like very many, but the nature of these birds is they don't fly south for the winter or north for the summer, they're more nomadic. They follow the flowering events of the territories so vast, even though it is a lot smaller than it used to be, it's so vast that the chances of spotting one a second time is a billion to one and the fact that they've turned up in the park year after year after year is absolutely phenomenal. In fact I think two turned up this year and only one wild bird was seen in the park, so it is an awesome achievement really.

Also we have seen captive birds breeding with wild birds and successfully raising wild chicks so that's phenomenal.

These are the miles stones that keep coming and coming.

When we released them Dean Ingwersen, I don't know if anyone knows him, but he is the Victoria birdlife person that we deal with, he is the chair or the organiser for the Regent Honeyeater recovery team and that is what he used to say. You need to get me one that breeds, and then we had one that bred. I have got some wonderful photos of a captive bred bird feeding wild babies. He has got all these photos he has taken with this massive telephoto lens and he said that he put his camera down and then two minutes later a Butcherbird came and just killed them, just like that. So that was the next challenge, let's get one and not let the Butcherbirds get it.

So that is kind of the recovery team in a nutshell I guess and what we have done at Taronga.

As far as breeding goes, and without blowing the Taronga trumpet, we have had far more success than any other institution. I mean 700% or 800% more success. Some of the reason for that is our involvement and our dedication. If you really want something then you will work harder at it than if you are assisting someone else I guess, the long term skill, etc.

Regent Honeyeater
(photo taken at Taronga Park Zoo)

Some people believe (I don't necessarily put so much weight on it), but some people believe that birds breed better when they are side by side.

The theory is that in the wild they used to flock in large numbers so pair "A" in tree "A" and pair "B" in tree "B" and competing with the Joneses is a humanistic way of putting it I guess.

I don't necessarily think that is true. I think that works for us and seems to work for us because that is the way that our aviaries are set up.

We have had other isolated pairs on the other side of the zoo and I don't know how good their hearing is, and maybe they can hear the other birds, but they are quite far away and they bred as well. So I think the statistics are based on circumstance.

I think one of the reasons that we are so successful is because the keepers take so much time to look after them every day. It is not just putting two birds in a cage and adding water and it is not just about the diet, it's about knowing when the breeding season is about to start and changing the diet like with many different birds.

The Regent Honeyeaters build their nests and they glue them together with spider web, so every day the keepers are walking around during breeding season with little forked sticks hitting cobwebs from the corners of buildings.

So it is that, spending half an hour of time.

We have moth traps and we collect moths every night that we trap fresh. So it is just taking the time to set the moth traps at night and distributing them around evenly and providing all the right kind of things that they need.

Question (Graeme Phipps):

How endangered are they?

They were listed critically endangered I think in 2008. Their numbers are probably less than 600; it is very hard to tell because of their nature.

Their biggest threat is habitat loss as it is with most species.

One of the really crazy things is that their numbers are increasing and I would like to think that that is because we are releasing them, but their numbers might be increasing now because

1. people are looking, and
2. unfortunately or fortunately, depending on which way you look at it, now when mining companies put their eye on a certain lot of land they have to go and do surveys and they have to survey what animals are in those plots of land.

So unfortunately or fortunately...

<u>Unfortunately</u> because mining companies have their eye on habitat that may or may not be important, but

<u>Fortunately</u> because they're paying individual people to do surveys in areas where more and more Regent Honeyeaters have been spotted.

More are being recorded so does that mean that there are more?

Or is it just that there are more eyes looking?

In 2011 or 2012 we collected more birds from the wild and when we were out in the bush I think I saw about 30 or 40 where all that land is designated for the Newcastle Industrial Precinct. So all that land is earmarked to go basically and that is where they were just near there.

Question (Graeme Phipps):

Are they required to create alternate habit for them?

I am not an expert on the subject but they have this thing called BioBanking which a lot of people are excited about.

I'm not necessarily that excited, but the idea is, it's a little bit like that carbon credit thing like now when you buy your airline ticket and they - say do you want to buy or donate because you are ruining the environment by flying - do you want to donate so much money to offset your holiday?

It is kind of I guess like that in a way.

It's called a bank because companies can pay into it and the other part of it is that if you own a block of land that is really nice habitat, it used to be that you could sign up or change it to a National Park, which maybe it helps the animals, but it doesn't necessarily help them long term because no one pays to look after that, so it turns to weeds and it's useless anyway.

So they have kind of changed what they do and they let the farmer keep it but he has to sign an agreement that he won't knock the trees down or he'll plant more trees or do whatever, so they pay him money out of that bank to look after his fences, to keep his cattle in, they give him money to do that kind of thing.

Question (Graeme Phipps):

So Michael is it too long a bow to hope that one of the reasons for the increase in numbers is the planting and restoration of the Regent Honeyeaters' habitat?

Oh without a doubt, that's not even a long bow to draw, that's a fact.

We went to the last planting at Capertee Valley at the beginning of this year just before May and just over the hill on the property where we were, were the plants that had been planted 25 years ago and they were the just the right size now. So it has been going on for that long but now we are definitely seeing the fruits of the labour.

You would think that is a wonderful thing when they build a freeway and they plant all these eucalyptus trees on either side. But the fact is that unless the corridor that you plant is 200 metres long and wide, then all you are really doing is planting habitat for Noisy Miners; because they have proven that Noisy Miners will dominate the first 50 metres or so. Then you need 100 metres for the other birds, and then you need the last 50 metres...

So it needs to be quite a wide tract of land and that is what the recovery team do, they target specific areas where they can plant decent sized areas.

We have been sending a bus load of volunteers out every tree planting and last time one of the educators or teachers at the zoo put one of those cameras on and it is just amazing to see when the army of people come up over the hill and just get the plants going in and in and in. It's awesome. They are just so organised, the recovery team and those people.

When we get there to do the planting the furrows are already dug, the plants are already laid, the bamboo sticks are already there and the milk carton or whatever it is, the cardboard, it all already there. So you just walk along, you dig the hole a little bit, you put the plant in and push the bamboo stick in and move to the next one. Once you have done them all someone comes along with a big truck and they water them all and they continue to water.

They have a 90% strike rate for the trees that are planted.

They are really good at it and that is important too because you don't want to spend time and money planting trees just to have them die.

Question (Graeme Phipps):

> *I suppose another thing, and you can't do much about it at the moment, but if you have all the trees planted at the one time they will all grow at the same time and they will die at the same time. So you might need to be planting in more?*

They plant a very wide variety of species. They will plant a Casuarina and then it will be an Iron Box and then a Yellow Box, etc. so they are planting multistorey.

Chiltern where we release the birds is a National Park now and I have been told that that block of land has been clear felled three times and replanted over its history, certain parts of it anyway. So it's dirt roads and on one side it's really high eucalypts with no understorey, and on the other side of the road it is two or three metres high with eucalypts with no high or top storey in it. There are roos there and other stuff too.

Looking after nature is a challenging task for anyone but it is very hard to convince people that you should go to a National Park and knock every third tree down and plant something smaller. It doesn't make sense to go to a National Park and knock every third tree down. What are you talking about? You must be crazy!!

But the fact is that there is no sun getting through so there is nothing growing up underneath.

Plus there are kangaroos there so it is very hard to convince people that maybe they should cull the kangaroos for a certain period, or fence it off to keep the kangaroos and the wallabies away, to stop them from eating the undergrowth. You can let them come back later when it is established.

Comment (Graeme Phipps):

Well Michael, thank you ever so much for that excellent briefing on the work. I'm so impressed. It has got to be something that gives you joy and obviously gives everyone at the zoo joy. I mean you don't get better than that. In a certain sense it's the big ones like rhinos, tigers, etc., but sometimes it's the smaller things that we do, you know it's the smaller species that give us such great results and in some ways it's encouraging to keep at it with the big ones.

(At this point Graeme asked if anyone had any questions for Michael.)

Question:

> *The captive diet that you have is obviously different compared to when you release them, do you have a transition period where you start trying to prepare them for survival in the wild?*

Yes, in a way, but not really. These guys get a mixed diet.

They get a fruit mix that we make. It's got apple and pear, boysenberries, corn, about five different types of chopped up greens, pawpaw, sultanas and currents. I think that it is it.

Question (Jack Stunnell):

Insects?

Yes.

So that is what they get.

They don't necessarily eat very much of that but we know that they do eat some fruit in the wild.

They really love pawpaw; they lick the juice off it and some of the flesh.

They also get a small amount of insectivore mix which is oil with hardboiled egg that we mash up and leave the shell on. I don't know what brand it is but it is an insectivore powder, and fly pupae, and that is all mixed in together and we put some water in there so that you can make it a texture where you can clump it together and they can also pluck it apart. So they get a small component of that as well.

They get a slice of orange or a slice of pawpaw every day.

They get a basic supplement of mealworms and we give them crickets, especially during breeding season, the crickets get ramped up. We dust the crickets in a calcium powder and we feed the crickets too. We put the crickets in a tub and the crickets get carrots and fresh food because "you are what you eat". Some people just feed crickets but they don't feed them or their mealworms, so really if you leave the crickets in there and they don't get eaten for a couple of days all you are going to be doing is feeding them the skeletons but there will be no nutrition inside them.

We feed them moths. We have this moth trap that one of our very clever technicians designed.

Comment (Graeme Phipps):

That was Lloyd's original design in about 1980.

It is a piece of pipe. I am not sure what size they come in (about 150mm/120mm) but it is about a 120mm elbow. It has a fan inside it. Now this is the technical bit because if the fan spins too fast it will cut the moths up and if it doesn't spin fast enough it doesn't suck them in. You can buy round fluorescent blue globes, the UV ones, so that sits around the 120m pipe. The fan is in the pipe and then we just get a meal worm bag and a rubber band and put that around the bottom and we put them on timers.

The other important thing is that you must make sure the timer is still running when you go to get the moths because otherwise it turns off and the moths escape.

So we feed them moths and that's how we get them.

Comment (Jack Stunnell):

I had one for years but the interesting thing is that when I first put it up there a big frog used to come up and sit on top and get a free feed each night. It was marvellous how he worked it out because it was only up there a couple of nights and there he was every night.

It was a black light fluorescent.

I must say that Peter Chapman right across the gully said that the one thing that stood out on our side of the gully was that black light fluorescent.

That is the best way to do it. I mean if the whole valley can see it that means every insect in the valley can also see it and come to it. If you stick it behind your house somewhere it probably won't catch anything.

Comment (Jack Stunnell):

> *It used to catch lots of moths some nights. It even caught a gum moth one night and it didn't chop it up either which was a bit surprising.*

Question (Paul Henry):

> *What about bush flies?*
>
> *You were saying that you feed them fly pupae. People that breed this type of species (not the same species), they just feed them flies, they have a system where the flies are always hatching and the birds are just waiting there for them.*

Yes we do.

We were lucky another to acquire about 70,000 cages from a university and they weren't very much use to us. They were little white cages. The university had been doing some research with finches or silvereyes or something like that, (actually 70,000 is a bit of an exaggeration, there were couple of hundred probably).

So one of the keepers went and bought some flywire and he just coated the whole lot with glue and he covered them with fly wire. He puts live fly pupae into the cage and he leaves the door open all the time so that the honeyeaters and the other birds too fly into that cage for the flies as they hatch. I mean some of them get out but most of them can't get out because they are stuck in the flywire.

Another thing that we do is we feed "walks".

A "walk" is a type of fly that is only just old enough that it can't fly yet, it can only walk, so we call them "walks".

You just get a container and you drill a hole in the top and you put a stick in it so that the hole is bigger than the stick. You put your pupae in the bottom of the container and as they hatch they walk up the stick to get out, and as they walk their wings dry out, and the birds come and eat them before they get a chance to fly off.

So that is a way of distributing them one or two or three at a time because only a certain amount can get through the hole and walk up the stick and the stick makes it easy for the birds to come along and grab them. Especially birds like swallows and birds that don't land, they can get them off the stick.

Getting back your question regarding a transition period, we feed them that component of their diet and then they have to be quarantined before that go out into the wild.

They get very strict quarantine testing; in fact stricter than any other animal in the zoo this year.

They get blood taken twice, sometimes three times. They get checked for internal and external parasites.

These birds have been researched more than any other bird that I know of through projects that we have been doing as uni students and when they are in that quarantine we totally pump up the flowers that they get. They get a lot more grevillea. We put ads out at the zoo, on the internet, etc. We put a bucket out at the front entrance so that people can cut flowers from their gardens and drop them in the bucket and then we go and collect them.

Having said that though, the flowers in Chiltern are totally different, there are no grevillea, there are no banksias, it's all ironbark and stuff like that, so we do get them onto that, but we don't make so much of an effort.

That was one of the things with the very first release; we sat down with a group, a big group of people and said well okay we are going to do a release, what should we do?

Someone said that we should do predator avoidance because they have never been exposed to a hawk and what happens if they are exposed to a hawk and hawk gets them?

So we discussed that for a very long time, i.e. what are they going to do?

Well we thought what do they do when a hawk flies over the zoo, I mean hawks fly over the zoo every day, what do they do?

They freeze.

What is their natural reaction?

They freeze.

Well okay we think that they are demonstrating their natural instinct so we could spring up a thing above all the aviaries (and I think they did that with the numbats), they snuck up to the aviary, pulled the thing and everyone got sticks and belted the side of the cage, so the bird got scared and learnt what to do.

We could do that, but if we do that, I think we have to do that every other time because that is what we have always done.

Or, we could not do that, go on our gut feeling that they will do the right thing, and then we don't have to do that.

We know that it is not necessary and that's what happened. We didn't do it.

So we know that one or two got taken by a hawk but one or two would have got taken by a hawk anyway. That is just the nature of things.

Comment (Graeme Phipps):

> *As you said before one or two got taken by butcherbirds so you know they are going to come under the radar.*

We set them up in dome tents before we release them. They are just purely like flyscreens 360^{o} all the way round.

Within the first day we decided that was actually a bad thing because they had no respite. We thought that because they were in the forest that would be quite good enough plus some of them were trying to jump out through the flywire out into forest, so we hung sheets. We went to St Vinnie's and asked them very nicely if we could have any of the donated sheets and then some other people brought sheets for us, and we just pegged them on the tents.

Any of the tents you buy now come with white sides in them and they zip down. We zipped them up through the day and the other thing was that (talking about hawks), every release we have had a hawk come. The first one came down and belted the side of the tent and absolutely scared the birds so within 10 minutes we had tarps up over all the tents. We do that now as a matter of course and every single time, but because the tarps are over there the hawk loses its momentum, so it gives up and then it leaves.

We are worried about foxes; there are lots of foxes there.

We offer our knowledge and ideas to the Melbourne Healesville people that are there for their Helmeted Honeyeaters. They have aviaries specifically built and they do a soft release and supplement them for a very long time. We don't do that. But they are different birds. They said they didn't like the dome idea because foxes and rats might get through and we can see their point.

We release them after three days in the tents or rather three days plus the day for processing.

Comment (Graeme Phipps):

> *I think with the Helmeted Honeyeater programme it is hard to think about a lot of the habitat being only 200 metres wide. The wineries go right down to the creek and you can see through the trees from one vineyard to the next and they are not going to chop out 200 metres of champagne wine making areas.*

Question (Duncan Macpherson):

> *When you are releasing them what other birds are in that area and are their numbers affected? Because if they are going down, you could just be feeding the hawks, couldn't you?*

Yes, no they are not going down and that is why we chose Chiltern as the area because that was one of their main strongholds.

In the 1980s it's been well documented that you could see 100 birds in a tree and their numbers have declined but their habitat hasn't declined there. So we know that the habitat that is there can sustain the number of birds, but what we think is happening there is that they are just not coming back because there is no corridor at the right time for them to come back. So we are releasing them in an area that we know can sustain them. They are also out at Western Sydney, the Capertee Valley is the other stronghold, but that continues to be a stronghold, so if we release them there we could potentially be overpopulating and underfeeding the wild birds.

Question:

> *Are they still tracking them after they are released?*

They are still tracking them. We release them on the 1st May and there are still people out today walking around Chiltern with binoculars looking for them. The last transmitter died about two weeks ago but there are still 10 of our birds of the birds that we released.

Comment:

> *78% were observed three months after the release.*

Yes some of those 78% weren't seen for two months and then they came back again.

(Graeme Phipps thanked Michael for his very informative presentation.)