

Lesions in Black Swans – New Condition?

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ABSTRACT: Since 2005 rehabilitators from Malubillai and Native Arc, together with Perth Zoo Vet Department have been treating Swans from Lake Monger Perth WA, with an unusual condition. Of approximately 40 Black Swans admitted (since 2005) from Lake Monger by Malubillai, 21 have been admitted with this condition.

The condition causes ulceration and inflammation to the unfeathered areas – beaks, eyes and feet. Associated problems include dehydration and risk of secondary infections.

- To date only Black Swans have been admitted (8 in 2005, 0 in 2006 and 13 in 2007). All admissions have come from Lake Monger, and all cases admitted so far have been babes to sub adult.
- It is not known if this condition has been seen in Black Swans before.
- Groups of swans are being affected.
- We believe treatment is proving successful.
- Research and testing done so far is providing us with a better picture of this condition. However, we still don't know what the condition is, what is causing it and whether or not the number of cases are increasing, decreasing or remaining static. More research is needed.
- The overall health of wildlife at Lake Monger is greatly compromised and affected by a number of issues at the site. Malubillai together with local community groups and local council are working together in an attempt to rectify some of the issues and create a better environment for our wildlife

Introduction

Anyone who has cared for Black Swans will agree that these birds are just so amazing to work with. They have strong characteristics and very individual personalities. Mind games and physical wars are all part of the wonderful experience of caring for them.

Between January 2005 and July 2007 approximately 40 of the black swans admitted into care by Malubillai Wildlife Carers Network have come from one location – Lake Monger Perth WA.

50% of admissions were due to;

- Symptoms of an unusual condition causing ulceration and lesions. We had not come across this condition in Black Swans before.

Other admissions were due to;

- Health issues related to unnatural feeding by the public
 - Health issues linked to inherent toxicity problems at the site.
 - Infection and/or lameness from bumblefoot due to inappropriate substrate
 - Road trauma
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The Site: Lake Monger Perth WA.

Lake Monger is a popular tourist spot situated approximately 4.5km from Perth CBD within the area bounded by Town of Cambridge. It supports a variety of permanent, seasonal and migratory birds and other wildlife. It has a history of being used for the dumping of industrial and domestic waste when attempts were made to reclaim the land for other uses. Many drains still enter the lake from various sources. A build up of nutrients caused by increased urbanization and fertilizers used in the catchment area and aided by the clearing of natural swamp vegetation contributes to the occurrence of regular algal blooms.

Malubillai has been working with wildlife issues at Lake Monger for some years now. With the occurrence of this new condition we have moved to working with the local community and local government to identify and address fixing some of the problems at the site.

Problems Identified:

- feeding
- traffic
- pollution
- bumblefoot
- lesions on swans

Feeding

- Signage inappropriate.
- Dependency on feeding
- Physical torment/abuse from public
- Aggression by wildlife.

Estimated that 50 loaves a day are fed to waterbirds at Lake Monger. We have also witnessed meat bones, raw liver, capsicum, tomatoes, and mouldy grain in large quantities.

At times swans and other waterbirds are pushy and aggressive as they seek handouts of food from visitors to the lake.

Cygnets only 1 – 2 weeks of age are often seen trampled and crushed underfoot by larger birds as the wheels are set in motion for another generation of swans to become reliant on feeding from humans. The reliance of being hand fed inappropriate food by humans is making them vulnerable to obesity, and poor nutrition and leaving them open to physical abuse from not so understanding people.

Traffic

Swans and other waterbirds at Lake Monger often cross a major road to graze on grasses and moreton bay figs. Even though signs are posted and locals usually slow down we still see a significant number of deaths and injuries occurring.

Pollution

Silt, soil, water and air. Lake Monger has problems with the lot.

The lake contains remains of years of dumping of rubbish. Commercial industrial and other. At low water a variety of objects can be seen. Drums, bricks, cement tyres, builders rubble, piping, car parts. You name it!

Drains into the lake provide avenue for runoff from a variety of sources. Water quality is of great concern. Water testing is done regularly to our knowledge by the local council. Council in recent times has taken to notifying us when high levels of nutrients and bacteria are evident. Algal blooms and botulism frequently occur having devastating effects on waterbirds in particular.

Bumblefoot

A consequence of rubble and concrete areas at entry and exit from water also contact area. During our monitoring we randomly pick up swans to assess and there is rarely a swan who does not have Bumblefoot to some degree. We have frequently had swans admitted from the lake with infection and/or lameness due to this condition.

Community Involvement

Problems identified at Lake Monger were too big for us to manage on our own. This situation was bigger than Ben Hur!!! Whilst dealing with getting local council on side to address issues of managing botulism, algal blooms and feeding problems, we were also admitting cases for infection due to bumblefoot and other health issues. It proved vital for us to build a relationship with stakeholders of the area to have them see the problems, take ownership of them and then see how they could help to fix the problems.

The Town of Cambridge, and residents of the local community have been integral in helping us to fix the big picture. Feeding signs have been changed, the rubble which has been tearing the waterbirds feet to pieces has been cleaned up with a little more to do later, and council works in collaboration with us to manage any issues that crop up.

Lesions on swans

Symptoms

- Ulceration and inflammation to unfeathered areas; eyes, beaks and feet.
- Bleaching and pallor of beak.
- Dehydration.
- Gastric Disturbance.
- Bumblefoot – incidental to condition.

First detected in 2005

0 cases in 2006

13 cases in 2007



Possible Causes

- Photosensitisation
- Chemical burn
- Viral infection
- Other???

The bottom line is we do not know what this condition is, what has caused it or what it means to the Black Swan. Research is still being done and cases documented. Testing and autopsy have shown no conclusive diagnosis.

Symptoms have been most likened to phototoxicity - photosensitisation dermatitis, possibly caused by something ingested or come into contact with at the site. We can not confirm yet if the condition occurs at Lake Monger only.

Treatment and Care Plan

- Remove from site - to shaded area
- Rehydration – fluid therapy? sub cut and/or gastrolyte or lectade added to drinking water.
- Vet care – antibiotics and anti inflammatories used. Topical and oral.
- Hygiene – maintain sound practices.
- Report to Dept of Agriculture – group affected.

The detection of a condition that we had not seen before left us questioning how we should treat the symptoms, what the condition was and what the implications were to the health of ALL Black Swans? You could say we felt well out of our depth. We approached Perth Zoo for guidance in identifying the condition, managing treatment and rehabilitation.

As a group of swans were affected and this condition had not been documented (we believe) before, it was referred to the AWHN

8 Cases admitted in 2005, 0 cases admitted in 2006 and 13 cases admitted in 2007
Cases are being documented.

At admission our primary concern was to rehydrate and stabilize the bird. Many of the swans admitted this year were showing obvious signs of dehydration and most birds were depleted and undernourished with one swan being euthanased and several borderline in viability. Bloods were taken on admission and treatment started.

The primary aim of treatment and medications given to swans was to assist healing by treating symptoms and to protect the swans from secondary infections setting in.

Treatment was intensive. It entailed one on one care to administer twice daily application of ointments, drops and medications. Length of time in care averages approx 6mths. At least 3 of these months is intensive. The balance spent preparing for release and monitoring for relapses etc.

Treatment involved weekly visits to the zoo for assessment /progress.

Cases admitted to date have all been babes or sub adults

Swans were also given gastrolyte (to assist with hydration) on admission and Milk Thistle (dosed according to weight) daily.

Fluid Therapy was recommended for all birds at admission.
Cases admitted in 2007 were given sub cut fluids on admission.

Diet

Many of the swans if not all were deficient, depleted and in poor condition so it was important to ensure that a well balanced nutritious diet was available.

After the initial drop in weight from capture, and initial struggle to find the will to live weight gains the majority continued to improve good weights and response to treatment. They were offered a variety of greens, corn, orange veggies such as sweet potato, carrots (grated) apple, grains, snails, chick starter, duck starter (higher protein content), and dare I say small amounts of wholegrain bread was used to assist with administering medications.

Resources to deal with a situation like this were not available and are still not available. We have been working closely with Native Arc Rehabilitation Centre to manage cases. Malubillai have been doing initial care and Native Arc doing second stage through to release.

Release

We need more information.

- Are cases increasing?
- Is treatment effective?
- Are cases occurring at other sites?
- What patterns are emerging?
- Is it only swans being affected?

In 2005 cases were released at Bibra Lake. With a possible problem occurring at Lake Monger we could not be sure that re introducing them back to the site would not restart symptoms. A release at Bibra Lake also enabled easier monitoring.

We had the same questions as we do today. Attempts to band the swans proved fruitless. Paints were used on their wings in attempt to track them initially. The swans moulted within 2 days of being painted.

Initial tracking showed that some of the swans did suffer further health problems. It was felt that one case in particular showed worsening of the condition within a couple of weeks and came back into care.

We know through our monitoring that some of the swans released at Bibra Lake returned to Lake Monger within a few months.

No cases were documented in 2006

With 13 cases occurring in 2007 It became even more urgent to organize Banding. This time after much difficulty we were successful. Lake Monger was chosen as the release site this time because of our knowledge that some of the swans would only try to come back there anyway. After six months in care they were needing to go home.

The opportunity to have the local community and all other supporters, witness the swans returning to a better environment than they had left was wonderful and will only serve to improve things even more in the future.



What do we Know

- Some of the cases this year were born at Lake Monger developing the condition before flight attained.
- Water levels in 2005 and 2007 were low
- Some of the swans released at Bibra Lake in 2005 returned to Monger and have not shown signs of the condition reoccurring.

Conclusion

Resources and funds to manage a situation such as this are very limited, you could even say non existent. Volunteers are once again carrying the workload. Community involvement and local government support are being sourced by Malubillai, but more support is needed.

Attempts to research and build on our knowledge about this condition have been greatly hampered due to the restrictions on banding rehabilitated birds. Attempts to band in 2005 were unsuccessful.

We have just been granted permission to band this years cases but feel that a review on current policies would not only prove beneficial in cases like this, but could also prove invaluable in providing documentation that the work undertaken and knowledge that we have as rehabilitators is significant to the preservation of our Wildlife.

