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Painted Dog Conservation Inc

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From the Chairman

I would like to welcome all our newest members and our existing members to our half-yearly newsletter and trust you will all enjoy the content inside.

The committee led by John in my absence for the majority of the past and present year has been very busy organising events for the members and others enjoyment.

Organising events is not an easy job and generally when booking a venue there are costs associated and minimum numbers which must be paid for regardless of the actual number of attendees. Too often I have seen a few people on the committee and indeed their partners go to extraordinary lengths to try and fill places. We recognise that not all members will want or be able to attend however we do ask that our members circulate any flyers with their colleagues so that we can at least get maximum exposure for an event. It is only with your support as members that PDCInc can achieve its objectives.

Thank you to the members of SAVE for their continued support at our events and also to Silvery Gibbons and the other associations for forwarding our flyers to their members.

After a very long time John has obtained the services of Tracey Bernasconi to fill the position of Secretary. Thank you and a warm welcome to PDCInc.

In the last newsletter I indicated I was in Zimbabwe assisting the Painted Dog conservation with their administration. Towards the end of April I submitted papers to obtain a work permit and should I be successful, I intend staying at least three years with the project.

As foreshadowed it was challenging and I stayed a further 2 and a half months before flying to the UK and staying with the projects director who finally got capped and is now Dr Gregory Rasmussen. Some of you will remember that this man shattered most of his lower limbs in an ultra light plane crash in 2002. Dr Rasmussen will be travelling to the project during August.

From the UK, I flew back to Perth for a short stay and met with the committee and outlined my plans for the future before once again heading out to Zimbabwe.

It has been my privilege to have been instrumental in setting up PDCInc with the support of John, Dick and Margie and Chris McClelland who have been with me from the start. I am very appreciative of the support shown to me by the committee and wish them every success for the future.

The project in Zimbabwe has gone through a number of changes with staff numbers due in main to the dollarisation in February. The Zimbabwean dollar is all but replaced by the South African Rand and the US dollar. The US dollar is used in Victoria Falls and Harare and in Bulawayo most prices are quoted in the South African rand. Prices for most commodities are showing some stability for the first time in several years.

Fuel had stabilised at about a \$1 per litre but there is now a shortage again and at some places is being quoted between \$1.50 and \$1.80 and as high as \$2.20 per litre for diesel.

The bush camp for the children got off to a late start due to striking teachers. Wilton Nsimango displayed great initiative in organising camps for the children while the strike was in progress and the programme is back on track. While in Perth, Emma Still from Monarto Zoo in SA, who started the "Creating for Conservation" which has a charter of providing support for the Bush camp, mailed letters from the local children and those letters have been distributed to the various schools which are part of a penpal system. Thank you Emma.

PDCInc will be holding their annual general meeting during October, date time and venue will be advised to members. I would encourage all members to attend and be an active part of the organisation. It is your association and in the end it is the members that will ensure its success.

Welcome to our new and renewing members: Jim and Sarah Felgate, Robyn Lines, Matt Becker, Kellie Leigh, Luke Hunter, Lauryn Baxter, Laura Monaghan, Bill Hutch, Melissa Canales, Tracey Bernasconi, Astrid King, Brian Bernasconi, Indigo Foster Tuke, Kate O'Connell, Carla Srb, Mark Lynch, Virginia Rimes, Leanne Van Der Weyde, Thea Peterson, Patrick Patterson, Julie Hann, Susan Swalling, James Barr, Nathan Parker, Gwen McNaught and Robert Hemsworth.

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Painted Dog Conservation (PDC) — Zimbabwe

For our newest members, the following is a brief on the project that PDC Inc was initially set up to support. You would all be aware that we have expanded our support to neighbouring countries, Zambia and Namibia.

The director of PDC, Dr Gregory Rasmussen has been working in Zimbabwe from 1989. During 1992 he set up Painted Dog Research and during the first two years the human induced carnage from snares, shooting and road kills accounted for 95% of all dog mortalities. Early public presentations showed prejudice and ignorance and it was clear that unless this situation was addressed the species could become extinct. The initial emphasis was thus to identify the critical issues and develop a pragmatic and holistic strategy that would make a substantial lasting contribution to Painted Dogs, nature conservation and very importantly, to the lives of the local people.

PDC's mission is to protect and increase the range and numbers of the painted dog (*Lycaon pictus*) both in Zimbabwe and elsewhere in Africa through conservation, education and community involvement. They are committed to creating a network of conservationists, the local community and securing international funding.

The aims of PDC are:

- conserve and increase the range and numbers of dogs in Zimbabwe
- produce and publicise thoroughly researched techniques that can be used to protect this endangered carnivore, both in Zimbabwe and elsewhere in Africa
- establish this project as a role model for conservation of the dogs and other species at a pan African level
- mobilise Zimbabweans through education and awareness programmes to empathise with, conserve and be proud of Painted Dogs
- enhance the well-being of local communities that interact with this flagship species. To be achieved through conservation education and capacity building with stakeholders.

A summary of their achievements to date includes:

Anti poaching units

PDC employs 17 men split into three units to carry out patrols on a daily basis throughout the Gwayi Conservancy. Since the first of these units was deployed during late 2001 they have collected over 12,000 snares!

Conservative estimates indicate that 10% of snares kill, thus over 1,000 animals have been saved at a value to landowners of some \$350,000US.

Population increase

The national population estimated at between 400–450 in 1987 had grown to an estimated population of 750 dogs in 2005. This had not occurred elsewhere in Africa during the same period.

Working closely with the ranchers dogs are recolonising areas where they had not been seen in over 50 years

Reduction in mortality

Anti-snare plates developed in conjunction with the supplier of the collars, Sirtrack of New Zealand, are incorporated in the design and have enabled many individuals to survive after being caught in snares, thus maintaining the integrity of the pack.

Road signs have been erected to alert motorists to the presence of dogs and packs that utilise the main roads. Retro-reflective collars are fitted to the dogs. These measures have reduced road mortality

Relocation

The development of humane, non-invasive capture techniques has enabled PDC to relocate whole family units from sensitive farming areas without harm to the dogs.

Legislation

PDC has successfully lobbied for the species to be given special protection under the Parks and Wildlife Act and has been successful in securing the only prosecution against an individual for shooting a dog.

Rehabilitation Facility

PDC has constructed a rehabilitation facility for painted dogs as part of the National Conservation Strategy for the species. The facility boasts a main enclosure, 600m in diameter, a 100m medium term enclosure and a small intensive management enclosure (20m x 4m). All three areas are linked by a series of raceways to facilitate the movement of individuals with minimum handling.

Children's Bush Camp

It is an unequivocal fact that today's children are tomorrow's wildlife custodians and they need to be educated about the various problems facing endangered species. With this in mind PDC established a Children's Bush Camp.

An extended education experiential education programme has been designed linked to the National curriculum for grade 6 children with a philosophy aimed at affecting healthy developments in the perspectives, attitudes and feelings of students towards the environment.

Seventeen primary schools that border Hwange National Park have been targeted for this annual free of charge programme.

Community Outreach Programme

PDC's Community Development Officer visits local schools to teach children about the conservation of natural resources, including wildlife.

As well as teaching children about wildlife in general and the long term effects of poaching it is also they are also taught about sustainable use of permaculture.

Community Development Arts and Craft Centre

During 2003, PDC initiated a new project to assist the local



community in economic development by identifying, encouraging and training the talent in the immediate area to create art and crafts for the national and international market. Working with both adults and children the aim of this programme is to provide an income for the individuals as well as the promotion of conservation by teaching the sustainable use of natural resources.

Local artists have been contracted to create sculpture made from

the wire which has been removed by PDC's anti poaching units.

Visitor's Centre

Free to the public, the PDC Interpretive Hall teaches visitors about the greater Hwange ecosystem, the plight of the painted dog and how they can help through a series of artistic, informative and interactive display stations.

Visit www.painteddog.org for more information.



Wild Dog project

Update from Robin Lines

In recent years it has become increasingly clear from extensive field research that Etosha National Park represents the most significant priority protected area for wild dog reintroductions in all southern Africa. The Namibian Wild Dog Project, with support from PDC and SAVE, is working round the clock to make this a reality.

Conservative estimates indicate a successful reintroduction could double Namibia's current population to 600 individuals and add up to 10% to the total free-ranging population in Africa. No other conservation impact comes close to this management intervention.

To make this a reality the wild dog project has initiated an extensive

community outreach and research project aimed specifically at Etosha and the surrounding communities, with a view to understanding the social, economic and ecological factors that will ultimately direct the pre and post-release management necessary to maximise potential for a successful reintroduction.

Traditionally local communities have been in significant conflict with large carnivores that move in and out of Etosha. This conflict has led to unsustainable persecution of wild dogs, and is a major threat to the reintroduction without effective conflict mitigation. So the wild dog project is working on a human-wild dog conflict

mitigation programme based on rigorous scientific study of the conflict and environmental education initiatives in both the communal and commercial farming areas adjacent to the park. Outreach with park staff is also planned to assist them with mitigating conflict.

Later this year the Wild Dog Project, in collaboration with other local and regional stakeholders, will be convening a National Planning Workshop for the Namibian wild dog population, and preliminary findings from the Etosha studies will be disseminated.

Watch out for feedback on this exciting undertaking.

Painted Dog Conservation Inc On Facebook

PDC Inc has joined the new social networking website, Facebook (www.facebook.com).

Since its creation in February 2009, The PDC Inc Facebook group has almost 200 members from all over the world, this is separate to our (paid membership base). Any and all current Facebook members are able to join the group simply by entering Painted Dog Conservation Inc into the search bar on their Facebook homepage.

PDC Inc has been able to take advantage of this free website to raise awareness of the plight of the Painted Dogs, as well as the work we do towards their conservation.

The site enables us to advertise the project, as well as fundraising events, run forums, raise awareness, share photos, keep members updated on the project and numerous other things.



Robin Lines' Down Under Tour 2009



In what has become an annual event, Robin Lines returned to Australia to undertake crucial fundraising activities and much needed R & R.

As last year, PDC Inc hosted Robin at Zebra's Steakhouse in Bicton where Robin kept an admiring crowd of 110 people enthralled with his update of his field work and ambitious plans to reintroduce Painted Dogs to Etosha National Park and assist recolonisation to wildlife areas in Kunene Region.

He also spoke on efforts to limit human-induced persecution in current free-ranging populations through environmental education, community outreach and law enforcement; goals to reduce road kills in wildlife areas through traffic calming measures; maintaining and improving prey densities in and around wildlife areas; and training local farming communities in the benefits of integrated livestock and predator management.

Everyone enjoyed the night with the help of fine food and an African artefact auction with all proceeds raised going to Robin and his project.

We couldn't let Robin – who is a self proclaimed 'wanna be' race driver – leave our shores without experiencing a real Aussie V8 supercar. Thanks to Phil Lewis from Mobil Australia WA who organised a ride in a local car around Barbagallo Race Track for Robin along with Sue Chipchase (pictured right), the winner of the second ticket at the Auction who chose to take a ride on the wild side as well.



A Big Thank You!

PDC Inc and Robin Lines, Director Wild Dog Project Namibia, would like to take this opportunity to thank Mike Palmer, Nicholas Duncan and the SAVE Foundation Australia for their immense generosity by providing half the funds to help us purchase the shiny new Toyota Hilux seen below.

A reliable vehicle is a crucial piece of equipment in Africa and we are sure Robin will have many satisfying journeys in it.

Personal thanks also go to Geoff and Kim Hoddy for their continued financial assistance.

Painted Dog Conservation Presents:

Absolutely 80s

On Saturday 7 March 2009, in conjunction with Mouse Promotions, Painted Dog Conservation hosted a musical fundraising event with the amazing "Absolutely 80s"!

During their week in Western Australia, they performed at many sell out shows across the State, including Geraldton, Rockingham, Tammin and of course, Perth itself.

Absolutely 80s comprises of four of the best 80s pop icons including:

SCOTT CARNE (KIDS IN THE KITCHEN)

Change in Mood, Current Stand, Bitter Desire, Shine, Say It

BRIAN MANNIX (UNCANNY X MEN)

Everybody wants to work, 50 Years, Party, Still Waiting, Best Looking guy in the Factory.

ALLY FOWLER (THE CHANTOOZIES)

Wanna be up, Witch Queen, Kiss and Tell, Love the one your with, He's gonna step on you again"

SEAN KELLY (MODELS)

Big On Love, I Hear Motion, Out of Mind Out of Sight, Barbados, Oh Darling, Evolution

Absolutely 80s is a fantastic roadshow born from the sold-out Countdown Spectacular of 2006. Brian, Sean, Scott and Ally performed all of their hits, in a two-hour jam-packed show with a bunch of Aussie 80s gems thrown in.

When the guys started pumping out hits like Everybody Wants to Work, 50 Years, Party, Bitter Desire, Current Stand, Change in Mood, Shine, Out of Mind Out of Sight and Wanna be Up, the crowd danced the night away. Some of the more committed guests even dressed up in their best 80s outfits!

There were 100 people at the event, which was held at the Belvoir Function Centre in the Swan Valley, and part proceeds from ticket sales and merchandise sold were donated to Painted Dog Conservation Inc.

Everyone in attendance had a great time "getting down" on the dancefloor, and reminiscing to their favourite 80s song. After the show, the band mingled with guests, signing memorabilia and posing for photos. They were brilliant and put on an excellent show-we are all looking forward to their next visit to Perth.

To find out more about "Absolutely 80s", please check them out at www.myspace/absolutely80s.com or for any entertainment bookings, please visit "Popshop" at www.popshop.com.au. The band can also be found on Facebook as "Absolutely 80s presents" in addition to their individual fan pages.

As you can see from the photos, an entertaining night was had by all!



From top to bottom:

The whole band on stage. Ally Fowler from the Chantoozies (centre) working the crowd. Scott Carne from Kids in The Kitchen (centre) with two adoring fans. Brian Mannix from Uncanny X Men (third from left) being cheeky.



Wild dog sightings continue to be frequent on both sides of the river, similar to last year though we have yet to observe dogs in the recently accessible Nsefu sector (where we observed four different packs and dispersing groups in two weeks) but suspect we will soon. Estimates from last year are at least 120 dogs in this area of the park and surrounding GMAs, with over 20% of these being dispersing groups, potentially indicating a lot of pup production in numerous packs over the last several years. Some groups are nearly twice the average dispersal group size, which is also a good indicator (see Nyamaluma pack below). We will continue to update dog estimates throughout the season.

Kaingo Pack

The Kaingo Pack of dogs roams roughly from the Mwamba area in the north to Big Baobab in the south, with the Luwi River being the centre of their home range. Before the rains there were six males, one female and three pups. During the rains some things changed in this pack. One pup died and one male and the female disappeared. However, three other females, one of which collared, joined them, potentially in a takeover from the lone female (see alpha female feature below). These three females were born in 2006 (the collared one) and 2007 in the old Luwi Pack. Two of those females are also sometimes seen separately from the rest of the pack, so sometimes there are 8 dogs, and sometimes there are 10.

The best news is that the collared female (see 'The Alpha Female of Kaingo Park' below, notice the swollen teats) is pregnant! We expect her to den towards the end of June, but usually denning takes place in the miombo woodland far away from the river, presumably to avoid lion, hyaena and potentially other dog packs given that they will remain at the den for three months typically. So they might not be seen regularly again until September or October but it certainly depends on where they may select.



Above: The Kaingo Pack attacks a hyaena as it takes the remains of their impala kill. Hyaena frequently take wild dog kills, a behaviour known as "kleptoparasitism", but often, as in this case, little remains beyond the bones and hide by the time the dogs relinquish it. In high density hyaena areas, however, frequent kleptoparasitism by hyaena can pose a problem for dogs.

Katete Pack

At the moment there are 8 dogs in this pack. One collared female born in 2006 in the Luwi Pack and seven pups born around 15 June last year. They are regularly observed in the Chichele area and still retain over 75% of their pups (the average for wild dogs continent wide can be as low as 30-40%). With a number of such young dogs they are doing quite well. However, one pup (with a white patch on his left shoulder) broke his leg in April. Demonstrating how social and resilient dogs are, he seems to have recovered to the extent that he can keep up with the pack and feed on kills and occasionally get fed from other pack members. It is likely that he will always have a disfigured limb but provided he can keep up and doesn't get ambushed by a lion or hyaena he should be alright.

Pontoon Pack

This pack of about eight dogs has been seen around Kafunta, RPS, Wildlife Camp and Kapani and has a pregnant female. They are not frequently observed enough to determine their range however we suspect they may travel south at least to the Chipembele area. One of the females is from the Kapamba pack so has crossed the river and frequently splits from the main pack with another young female observed at Chindeni late last year. This is a relatively new pack so we will update you as we collect more information.

Nyamaluma Pack

This pack was observed at Nyamaluma late last year and consists of eight dogs as well. The five females were part of a dispersing group we observed in the Nsefu sector in July 2008 and have thus moved a considerable distance before apparently settling into the area south of Chipembele.

De-snaring

Snares continue to be a problem for all species we study, most recently for lions, as we have removed snares from two different groups of lions in five days. Similar to Rachel McRobb of SLCS, I [Dr Matt Becker, Project Manager] am registered by the Department of Livestock and Development and approved by ZAWA to conduct wildlife capture operations and remove snares. This has been very beneficial, as on June 08 Kakuli Bush Camp reported a Luwi pride lioness badly snared around the neck. They relayed the message to SLCS and on to us (as Rachel was not available). The snare was removed and fortunately the injury had not progressed into the trachea or oesophagus and shortly after she recovered from the drugs she was happily lying on her back in the shade, on her way to recovery.

Similarly several days later a male lion was reported by Mchenja Bush Camp with a snare around its head; these males were

observed in Nsefu last year and have crossed over this season. Thanks to early detection by guides this snare had not had time to injure the lion and was easily removed. Given the prevalence of snares in some areas we expect that having a collared animal in some of these groups will provide frequent enough relocation that we can detect snare injuries early and have a means of quickly relocating the injured animal and removing the snares. Similarly it will also enable us to better determine where these snares are being picked up, after which we can deploy our anti-snaring team employed through SLCS to conduct the snare-removal operations.

The Alpha Female of Kaingo Pack



This three-year old dog was born into the former Luwi pack in 2006 and remained within her natal pack until the dissolution of the Luwi pack in 2008. Packs are typically formed by dispersing groups of the same sex (i.e. sisters dispersing together or brothers dispersing together) meeting another unrelated dispersing group, from which an alpha male and alpha female are formed, and these are typically the only animals that breed. Dispersal of dogs typically occurs between 1-3 years of age and thus if a pack is successful for several years pack composition will often tend consist of the alpha pair and their offspring, as all other founding members have either dispersed again or died. Consequently if something happens to one of the alphas the pack is likely to dissolve. This is exactly what occurred with the Luwi pack, as while it was large it consisted of an alpha pair and their offspring.

When the alpha male disappeared he was presumed dead. While the exact cause was unknown, it followed a chronic back leg injury, not an uncommon situation with dogs given that they run after prey at speeds of up to 60km/h through the bush. This disappearance left only the alpha female and her offspring, resulting in the males dispersing from the area and the females dispersing in 2 groups; one was the alpha female and one of her daughters that moved south to form the Katete pack, and the other 3 females, including this dog, remained in the Luwi home range and shadowed a pack of 7 dogs that moved in shortly thereafter. This pack has been nicknamed the Kaingo pack given that they were observed chasing a leopard during one of the first days they were detected.

This dog has been collared for over a year and thus we were able to follow the movements of her and her sisters all of last

season. On several occasions they were observed interacting with the Kaingo males while they were away from the den. Given that there were three females in the Luwi dispersal group and only one female in the Kaingo pack we expected a takeover at some point, as this can often occur with wild dogs, but this failed to occur throughout last season. However, in April of this year we undertook a very wet early season mission up the 05 and heard her collar, eventually locating her south of Luwi bush camp, away from her sisters but with the Kaingo males and last year's pups!

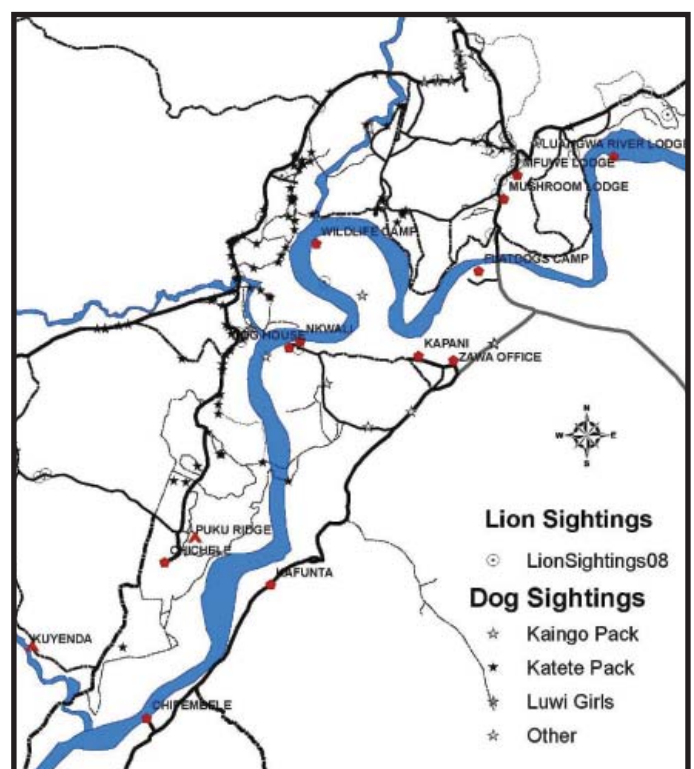
We observed her mating with the alpha male and on subsequent occasions have sighted her two sisters with the pack as well (presumably when they are not with the pack they have roaming during the breeding season, perhaps looking for other dispersing males).

She is nearing denning, looking very pregnant, and we look forward to monitoring their dynamics and wish them a very big and successful litter of pups. Pack size is of critical importance for wild dogs as larger packs are more successful at hunting, at raising pups, at producing larger dispersal groups, and likely in allowing injured pack members to recover and survive, so a good litter of pups could make the Kaingo pack a force to be reckoned with in the area!

Sightings

Data collection for the LVCMP was slow in 2008 largely due to delays on my part however we are gradually compiling data and synthesizing sightings data as it comes in. Photographs continue to be invaluable for all species of carnivores given their ability to distinguish many animals by colour patterns.

We continue to work on effective means of identifying individual hyaena and leopard from photographs and will provide camps identification sheets as they are developed.





Creature Feature: Nile Crocodile

Order: *Crocodylia* **Family:** *Crocodylidae* **Subfamily:** *Crocodylinae*

Genus & Species: *Crocodylus niloticus*

Common Names: Nile crocodile, Mamba, Garwe, Ngwenya

Name Etymology:

> *Crocodylus* is derived from the Greek *krokodēilos* which means literally "pebble worm" (kroko = pebble; deilos = worm, or man) referring to the appearance of a crocodile.

> *niloticus* means "of the Nile" (Nile River, Africa)

Subspecies

Given the wide distribution range, a number of population differences have been observed, and several subspecies proposed. These are rarely differentiated in the literature, however, and they are not officially recognised.

Suggested subspecies

C. n. africanus (East African Nile crocodile), *C. n. chamses* (West African Nile crocodile), *C. n. corviei* (South African Nile crocodile), *C. n. madagascariensis* (Malagasy Nile crocodile, Malagasy alligator, Croco Mada), *C. n. niloticus* (Ethiopian Nile crocodile), *C. n. pauciscutatus* (Kenyan Nile crocodile, Kenya alligator, Kenya caiman), *C. n. suchus* (Central African Nile crocodile)

Distribution

Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Congo, Egypt, Ethiopia, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea, Guinea Bissau, Ivory Coast, Kenya, Liberia, Madagascar, Malawi, Mali, Mozambique, Mauritania, Namibia, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, Tanzania, Togo, Uganda, Zaire, Zambia, Zimbabwe. Fairly recently extirpated from Israel, and less recently (beginning of the 19th century) from the Cormoros islands (thought to be due to an increase in aridification and thus a decrease in suitable habitat).

Habitat

Wide habitat preferences, reflecting their success and distribution- e.g. lakes, rivers, freshwater swamps, brackish water. Sub-adults disperse into different habitats, away from breeding areas, when they reach a length of approximately 1.2 m. Nile crocodiles modify their habitat by digging dens (usually with their snouts and feet) into which they retreat from adverse conditions such as temperature extremes.

Status

CITES: Appendix I, except 1. Botswana, Ethiopia, Kenya, Malawi, Mozambique, South Africa, Tanzania, Zambia, Zimbabwe (Appendix II ranching); 2. Madagascar, Uganda (Appendix II annual quota)

IUCN Red List: LRLc (LOW RISK, LEAST CONCERN, may be threatened in some parts of range)

Estimated wild population: 250,000 to 500,000

Summary: Wide distribution coupled with healthy populations and successful management in many areas. A few areas are poorly surveyed or with depleted populations throughout the range of the Nile crocodile.

Appearance

Generally, it is a large crocodilian, averaging 5 m in length but reportedly reaching 6 m in rare instances. There are dubious reports of 7 m animals having existed, but these are hard to verify. There is some evidence that Nile crocodiles in cooler countries (eg. South Africa) reach slightly smaller adult sizes (4 m). There are two known population of dwarf Nile crocodiles living on the extreme limits of the species' range, in Mali and even the Sahara Desert! Due to suboptimal conditions, adults average between 2 and 3 metres. Juveniles are dark olive brown with black cross-banding on the tail and body. This banding becomes fainter in adults.

Dentition

5 pre-maxillary; 13-14 maxillary; 14-15 mandibular
Total no. of teeth = 64-68

Diet

Although the juveniles are generally restricted to eating small aquatic invertebrates and insects, they soon move onto larger vertebrates (fish, amphibians and reptiles). Adults, however, can potentially take a wide range of large vertebrates, including antelope, buffalo, young hippos, and large cats. Fish and smaller vertebrates often form the greatest part of their diet, however. As with *C. porosus*, they have a reputation as being man-eaters, although probably kill more people than all other crocodilian species combined. Along with hippos and lions, crocodiles account for perhaps a few hundred deaths and

disappearances each year, although exact figures are very hard to verify. Nile crocodiles will also often scavenge from carcasses, together with a number of other animals, all of which seem to tolerate each others' presence. They have a rather well-known relationship with several species of birds (e.g. spur-wing plover, called "trochilus" by Herodotus) which are reputed to pick pieces of meat from between the teeth of the crocodiles as they gape - the birds gain a meal, the crocodiles have their teeth cleaned of scraps they could not eat themselves. Whether such a mutual relationship actually exists is hard to determine from the literature and anecdotal reports, but seems more likely to be opportunistic rather than symbiotic.

Several prey animals have been found wedged under submerged branches and stones, leading to reports that the crocodiles store unwanted prey here until a later date. Some claim that it is necessary for the prey to decompose before the crocodiles are able to tear portions of flesh off, but this is unlikely to be true. The flesh may become softer if the prey remains in water after death, but crocodiles will certainly avoid rotting meat. When feeding, a number of individuals will hold onto a carcass with their powerful jaws whilst twisting their bodies. The anchorage provided by the other individuals allows large chunks to be torn off for easier swallowing. A few lone individuals have been reported to wedge prey between branches in order to provide the anchorage necessary for such actions to be effective, which could even be claimed to be a form of primitive tool use.

Other cooperative feeding behaviour has been reported, such as the action of many animals to cordon off an area of water to concentrate fish within. A hierarchy of feeding order is often observed in such situations, with more dominant animals feeding first. Groups of crocodiles will often move onto land to scavenge from kills made up to several hundred metres from the water. Adults have also been observed fishing using their bodies and tails to corral the fish towards the bank where they are concentrated and picked up with a sideways snatch of the jaws. Social behaviour in Nile crocodiles is often underestimated, although there are many aspects still poorly understood.

It has been observed that social status may influence an individual's feeding success, with less dominant animals tending to eat less in situations where they come into frequent social contact with other, more dominant individuals.

Breeding

This species digs hole nests up to 50cm deep in sandy banks, several metres from the water. These may be in close proximity to other nests. Timing of nesting behaviour varies with geographic location - it takes place during the dry season in the north, but at the start of the rainy season further south, usually from November through to the end of December. Females reach sexual maturity around 2.6 m, males at around 3.1 m. Females lay around 40 to 60 eggs in the nest, although this number is quite variable between different populations. Females remain near the nest at all times. Incubation time averages 80 to 90 days (ranges from 70 to 100 days), after which females open the nest and carry the juveniles to the water. Both males and females have been reported to assist hatching by

gently cracking open eggs between their tongue and upper palate. Hatchlings remain close to the juveniles for up to two years after hatching, often forming a creche with other females. As with many crocodilians, older juveniles tend to stay away from older, more territorial animals.

Despite the vigilance of the female during the incubation period, a high percentage of nests are raided by a variety of animals, from hyaenas and monitor lizards to humans. This predation usually occurs when the female is forced to leave the nest temporarily in order to thermoregulate by cooling off in the water.

Conservation

When considering its total distribution and status, the Nile crocodile is not considered seriously endangered per se, although in some areas it is badly depleted and in danger of being extirpated from some countries. Extensive population surveys in some areas have contributed to sustainable-yield management programs, mainly in southern and eastern African countries. These have been part of the monitoring necessary for those countries trying to establish sustainable use programs encouraged by IUCN and CITES. Central and western countries have seen much fewer population surveys conducted, and in general most countries (two thirds of African countries) have very little information regarding status.

After a population decline around the middle of the century due to over-hunting, legal protection has resulted in significant recoveries in several areas, and large populations can now be found (e.g. Botswana, Ethiopia, Kenya, Zambia, Zimbabwe). However, even with the lack of survey information, it appears that numbers in central and western countries are faring badly. This may be partly due to habitat differences, and the presence of two other sympatric species of crocodile (*C. cataphractus* and *O. tetraspis*). Humans do come into conflict with *C. niloticus* in several areas (e.g. mortality due to crocodiles has been reported frequently in Tanzania), and this fuels the need to establish more sustainable-yield management programs, together with educational programs. The skin from this species is considered to be a 'classic' skin, in that high-quality leather is obtainable without blemish-causing osteoderms reducing its value. Commercial utilisation is widespread, therefore, and many successful management programs have been established (e.g. Zimbabwe, South Africa). These have mainly been set up in conjunction with CITES, with the emphasis being placed upon ranching programs. Countries which still have certain quotas that can be harvested from the wild are moving towards establishing their own ranching programs (e.g. Madagascar). These initiatives are perhaps responsible for the lack of illegal trade in this species, which is currently considered to be insignificant.

Further conservation goals should include detailed surveys in western and central African countries, and the nurturing of newly-established management programs. Ecological research into population dynamics should also provide valuable information for sustainable-yield programs.

More Information

www.flmnh.ufl.edu/cnhc/csp_cnll.htm

www.angelfire.com/mo2/animals1/crocodile/nile.html

Painted Dog Conservation Inc Patron Report

I am not an early adopter of new technology. It's become clear to my friends and colleagues that one of the things that separates people like myself from the great apes is that a chimpanzee could probably learn how to use an iPhone. I say this fully acknowledging the marvellous technology that has enabled this letter to be composed and compiled at various locations before being sent, in an instantaneous blue burst of electric ether, from my remote Tasmanian home, to PDC Inc's Perth headquarters, and thence around the entire planet.

But as grateful as I am for all the sleek 21st century carrier pigeons that enable me to keep in touch when I am on the run, the fact remains that nothing compares to being there. Nothing is as good as witnessing events in person, talking to someone face to face, smelling the earth and tasting the water - "being on

the ground", as we ex-military types are fond of saying.

Recently I was able to travel up the east coast of Queensland to Cape York and Torres Strait for the first time. Of course, I've read about this unique part of Australia in books and magazines, and enjoyed a number of documentary programs on television. In my army days I'd spent quite a bit of time training and patrolling on the western side of the Gulf of Carpentaria. So basically I thought I knew what to expect. Happily, I was wrong.

It was a very pleasant surprise to plant my feet on the red earth of the far north and discover that the people, the wildlife and the geography was quite different to what I had imagined, and indeed exceeded all my expectations.

My first port of call was Thursday Island (aka, Waiben), where I gave English classes to the students of Tagai State College and delivered several thousand dollars worth of books on behalf of the Dymocks Literacy Foundation.

In this part of the world the school year revolves around the wet season, and students travel great distances by sea and air to attend classes once the rains move on. Though the main centre for the Torres Strait Island communities, Thursday Island is still a remote outpost in every sense, and such conditions require great creativity, resourcefulness, true fortitude and a sense of humour if you hope to thrive. The local teachers, who embody all these qualities and more, are a genuine credit to their profession. The students themselves, ranging in age from 11 to 17, were exceptionally bright and outgoing, making my time with them hugely enjoyable.

One of the cultural highlights for me was the highly musical nature of the indigenous peoples of Torres Strait. Their passion for musical expression is quite different to other parts of Australia, and the students at Tagai State College were no exception. One senior teacher told me that whilst it might be considered unmanly to sing and dance in other parts of the country, here it was considered unmanly if you didn't do both with gusto.

Needless to say, I am quite used to having my manhood belittled, but when it comes to making a fool of myself I never need a second invitation. Otherwise dry English lessons on metre, syntax and morphology, soon provided an opportunity for the year 11 students to write short songs about their land and culture. I joined in as best I could, my terrible singing only surpassed by my appalling ukulele playing. It was terrific fun.

After bidding farewell to the friendly faces on Thursday Island I made my way south to Cape York by boat and helicopter, taking time to visit a few other islands along the way, including: Horn Island, Prince Of Wales Island, and also Possession Island - where Captain (then Lieutenant) Cook first claimed the east coast of Australia in the name of King George III.

If I had fears that Cape York (aka Pajinka) had lost any of its charms due to increasing interest by tourists then these were soon put to rest. Though there is now a nicely sealed road running the several kilometres from Sesia, on the gulf coast, to



Top: Presenting books to Jodie Talon (Head of English Department), and the School Captains of Tagai State College on Thursday Island.

Above: Imagery and narrative lesson with members of the junior high school advanced English class.



Left: The PDC Inc. Patron destroys what would have otherwise been a beautiful song about the crocodiles and mangroves of Hammond Island. Right: The Possession Island monument marking the very spot where James Cook claimed the east coast of Australia for King and Country.

the small township of Bamaga, and just enough conveniences to make life comfortable, the rest of the country is as wild as one could hope. Indeed once you head off the main road onto the un-signposted rugged tracks leading to the cape itself, you see signs of nature having rebuffed any feeble attempts to subdue her – the rainforest having swept back over ancient dwellings, farms and airstrips like a green tidal wave.

The red clay roads were not yet open to the public due to the wet season being not quite officially over, and the driving conditions were the most difficult I have ever encountered, including all my years of desert racing. Still, there's nothing like a comprehensive insurance waiver on a hire car agreement to give you confidence, so I dived right in. I spent two days crashing my way down forgotten and ruinously deteriorated jungle tracks, on more than one occasion having to find a clearing near the shoreline where I could take a compass bearing to find out exactly where I was – It was wonderful. Needless to say, when it was over, I returned the remains of my battered and splattered four wheel drive to the car yard under cover of darkness.

Naturally I was keen to see as much local wildlife as possible and was soon rewarded: birds, lizards, wallabies and butterflies were everywhere, and I spotted several mobs of wild cattle and feral pigs from the air. Sea turtles and saltwater (estuarine) crocodiles and were also plentiful along the coastal mangroves, reefs and rivers, making for some very wary bushwalking. "Never turn your back to the water" was the local advice I kept foremost in my mind at all times – however, to be fair, with the breeding season over, the chances of confronting an aggressive female or a territorial male were very slim.

Naturally, as an established Hemingway-wannabe, I forced myself to sample the local fishing, which was every bit as good as the locals claimed. We managed to land some superb Queenfish, Crimson Cod and Giant Trevally, making for an

exciting afternoon of pleasurable exertion, not to mention a delicious dinner. To top it all off, as we headed back to the jetty, an enormous eagle ray leapt out of the water and soared across the bow of our boat against a blood red sunset backdrop – a breathtaking moment I will never forget.

The point of this indulgent travelogue is to reinforce the importance of actually being there. I will always be grateful to have had the chance to walk the red earth and sail the turquoise seas of Cape York, and Torres Strait. And I am especially glad to have been able to meet the people of this unique and ancient land, to hear their songs and stories, and share some of my own knowledge.

It is for this reason I am glad to see the PDC Inc. has expanded its field and outreach operations in Africa, and are now establishing a conservation footprint that takes local successes from Zimbabwe into both Namibia and Zambia.

Having read recent reports I am glad to say that the tide is turning, if every so slightly, in our favour. The situation is still painfully critical, but in areas where the PDC (Zimbabwe) teams have been operating we are at last starting to witness increasingly stable dog packs. In some cases the numbers are actually growing, with Dr Gregory Rasmussen reporting the painted dog population up in PDC patrolled areas by as much as 80% (from ~400 dogs in 1987, to a present number of approximately 750 dogs). Sadly these wonderful results are the exception, not the rule. We are still well short of attaining the population size that would ensure the long-term survival of Painted Dogs, who still face a bleak future everywhere in Africa where the PDC Inc. teams are not yet operating.

The PDC (Zimbabwe) plan of action to save this extraordinary animal is both complex and painfully simple. The simple part is that we just need many more talented, committed and fully equipped and funded people on the ground to do the hard



Top: Spot the 15 foot (5 metre) croc in this pristine rainforest setting. Above: Clearly you don't need any ability to fish in waters as rich with life as Torres Strait.

the dogs and track them via specially designed, reflective and armour plated, collars that not only provide vital information, but also protect the dogs from fatal snare wounds and make them visible to oncoming traffic when crossing roads at night, significantly reducing poaching and traffic fatalities.

- Relocation teams who safely trap and transport painted dog packs to less threatened areas.
- Installing road signs and actively lobbying the governments to enact and enforce legislation that protects painted dogs.
- Building and operating rehabilitation facilities for injured and sick painted dogs.
- Creating and delivering outreach programs to both the local community and visitors alike.

It is this last point that I want to emphasise because, in the longer term, it represents our greatest hope for securing the survival of painted dogs. Before John Lemon told me how critical painted dogs numbers had become I knew nothing of their plight. Not surprisingly this is still true for the rest of the world and much of Africa. If we are to make an enduring difference, then, in addition to vital hands-on field work, we must commit to informing and inspiring local communities of the painted dogs' desperate plight so they can take positive action of their own.

To achieve this aim PDC (Zimbabwe) carries out a range of important activities, from organising an educational bush camp for school children and establishing a visitors centre, to creating new economic opportunities for villagers through a community development Art and Craft Centre. At the Art and Craft Centre adults and children learn about practical conservation and also generate new incomes by creating art works that celebrate painted dogs, often from the very materials that once almost destroyed this species, including stunning sculptures crafted from recovered wire snares (I should add that these beautiful objects are available for sale locally and internationally via the PDC Zimbabwe with all monies going back to the villagers and our in-situ conservation efforts).

I'm proud to be able to support the field operations and outreach programs being undertaken by the PDC Inc. Everything we do here in Australia and New Zealand to generate funds, awareness and material support for the PDC Inc. makes a meaningful difference in Zimbabwe, Namibia and Zambia. Every dollar helps put more manpower, resources and expertise where it can do the most good.

As much as Greg and John and their hardworking team would welcome you to their field HQ, the simple fact remains that most of us can't make the journey to Africa to help disarm snares, teach villagers about conservation, track down injured dogs on foot or provide veterinary care. However we can certainly help save painted dogs from extinction by contributing what we are able. I will close this letter by asking each of you to recommit to the PDC Inc. by inviting two friends to join up when you next renew your PDC Inc. membership, and also to consider making a tax deductible donation. Your support makes it possible for the PDC Inc. to be where they are most needed. On the ground.

Bradley Trevor Greive, Patron

work. The complex part involves the variety of operations that are all vital to the success of our mission, including:

- Anti poaching teams who remove thousands upon thousands of lethal wire snares.
- Scientific research and protective collar teams, who study



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Conservation through action and education

Find us on the Web

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pdcinc@iinet.net.au

The Object of the Association is:

To advance conservation for the public benefit of the African Painted Dog, (also referred to as a Wild Dog) *Lycaon pictus*, through education promoting and disseminating research into such conservation and seeking to achieve their sustainable management.



Would You Like To Help?

Our supported projects do NOT receive any government funding and is wholly reliant on donations to continue its operations.

The key factor in retaining the workers from the local communities – both skilled and unskilled who are classed as staff – is to have sufficient funding available to pay them a reasonable wage.

Please consider a donation for the work to continue.

All donations received are put without deduction to the benefit of the African Painted Dog.

Here's What to Do

Forward a cheque or money order (within Australia) made payable to:

Painted Dog Conservation Inc
C/- The Treasurer
Post Office Box 40
Westminster WA 6061

Credit cards (Overseas and Australia): We can accept either Visa or Mastercard. Please tear off the slip below and forward to the Treasurer, whose address appears above.

Credit Card Transaction

Please note that PDC Inc does not recommend provision of credit card details via email, and will not request them.

Name:

Address:

Credit Card Type: Visa / Mastercard

Card Number.....Expiry Date.....

Name on Card.....

Amount:.....\$AUD / \$USD Signature:.....

Please note that the entry on your statement will be "Chris & Marge McClelland, Oxley".

Australian Residents: Donations or gifts over \$2.00 are tax deductible.