

Dear Friends and Supporters,

Welcome to the next edition of "The Green Mile". We'd like to start with a huge thank you to our growing network of volunteers who are assisting us with roadkill data collection across the country. Data received from the growing network of volunteers has enabled us to identify a few areas of concern, but more data (over a longer time-frame) is required to provide a true reflection of the likely threat of roads. In this month's newsletter, we outline how you can help us and join our expanding network.

We also have some exciting updates of our new Western Leopard Toad Mitigation Project in the Western Cape, as well as some innovative solutions from other countries to reduce the impacts of roads on wildlife. Keep your eye out for all the upcoming events planned over the next few months – the EWT's Conservation Open Day, National Transport Month, and a Roadkill Art Exhibition (planned for 2014).

I hope you enjoy this month's newsletter. Please feel free to send us your comments.

Yours in conservation,

Claire and Wendy.

Wildlife and Transport Programme Endangered Wildlife Trust

# **ACTIVITIES:**

#### **ROADS**

# WESTERN LEOPARD TOAD ROADKILL MITIGATION PROJECT

July 2013: A joint project between the Wildlife and Transport Programme (WTP), the Threatened Amphibian Programme (TAP) and the *Toad NUTS (Noordhoek Unpaid Toad Savers)* 

The EWT/WTP started a new roadkill project and are collaborating with Toad NUTS (Noordhoek Unpaid Toad Savers) to implement a roadkill mitigation method in Noordhoek, for the Endangered Western Leopard Toad. The Western Leopard Toad (WLT) (*Amietophrynus pantherinus*) is a coastal species. Its natural habitat used to extend from Hermanus to Melkbosstrand along the Western Cape coastline. In the past ten years their numbers have declined dramatically.



The WLT is listed on the Red List as 'endangered in the wild. There are several reasons for this, but the most critical one is road kill. The WLT migrates every year to the nearest suitable pond during the months of July–September to breed. Most of these ponds are found in low-lying areas and are surrounded by roads. Toads can be extremely difficult to see on rainy nights and high levels of road kill have been recorded, particularly on some of the very busy Noordhoek roads.

A shade-cloth and latte pole barriers run the length on both sides of the road reserve (for approximately 500 m). To prevent the toads from climbing the fence and reaching the road, the fence is placed at a 45° angle. Open buckets have been buried at regular intervals along the

fence and are emptied by volunteers throughout the peak hour traffic (18h30-22h30). Once the traffic has slowed down each evening, the buckets are sealed, allowing toads to walk the fence until the end and to cross at 'safer' points.

Prior to the installation of the toad barrier, WLT road mortality was 23.7%. This decreased to 7.3% after the installation of the barrier. However, the 7.3% mortalities were detected when the barrier had not yet been completed (05/08/2103 and 06/08/2013). Since then, no toad road mortalities have been recorded on the 500 m section of Noordhoek Road.

In addition to these visible results, human-safety of the patrollers has been improved due to less time being spent patrolling the road.

http://scenicsouth.co.za/2013/08/western-leopard-toads-protected-by-new-barrier-along-noordhoek-main-road/





## SMALL MAMMAL, REPTILE AND AMPHIBIAN ROADKILL MITIGATION PROJECT

October 2013: We will also be initiating a similar project in the Greater Mapungubwe Transfrontier Conservation Area (GMTFCA), northern Limpopo, where we already have two-year's worth of roadkill statistics.

In 2010, we initiated a project that formed the basis for the future development of the first national multi-species monitoring protocol of roadkill in South Africa. Implemented over a 120-day period in the Greater Mapungubwe Transfrontier Conservation Area (GMTFCA) in the northern Limpopo Valley, we detected 1121 roadkill carcasses, identified from 166 different species. Birds were the most commonly impacted species with 52% of the total sample.

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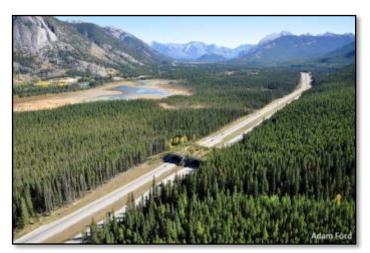
Mammals, reptiles and amphibians followed with 26%, 20% and 2% respectively.

A 'hotpost' section of the transect was identified for most roadkill occurrences. Movement patterns of many wildlife species are often associated with drainage lines, and can be modified with mesh fencing to encourage small vertebrate species and amphibians to cross. A pilot study examining the uses of culverts and funnel fencing will be implemented in October of this year to determine if there is a reduction post-erection of funnel fencing.

#### INTERNATIONAL ROADKILL MITIGATION PROJECT - CANADA .... A POSSIBLE solution for South Africa?

# **Bears Need Highway Overpasses, Too**







Beautiful Banff National Park in Canada began to install the first of several dozen underpasses and overpasses across the Trans-Canada Highway inside the reserve's boundaries in the 1980s. They connect on either side of the four-lane road to no sidewalks or trails, nor have they been marked on hiking maps of the park used by tourists. "We don't advertise them," says Tony Clevenger, a wildlife biologist who's been working in the park for 17 years.

They look, for the most part, like typical pedestrian infrastructure: elliptical or boxy concrete culverts under the highway high enough for a human to pass through, or overpasses that would look entirely familiar to the vehicles passing below. All this highway engineering, though, is meant for the benefit of bears... and cougars, and wolves, and elk.

The speed limit on the Trans-Canada Highway inside the park is 90 km/h; outside the park, it's 110. That's what most people are driving. The road is one of the longest paved highways in the world, and it's a crucial artery for Canada. On an average summer day, about 25,000 to 30,000 vehicles drive through Banff, between park visitors and long-distance drivers, the equivalent of one car passing every three seconds.

The park originally installed the crossings to protect motorists. On one 15 km stretch of the highway, there was an average of a hundred elk-vehicle collisions every year, and a 1000lb elk can wreck a car. However, over the years, critics and transportation planners, even some environmentalists have groused about the idea: Taxpayer money, building overpasses for bears? Is that really necessary? Would they even use the things?

Researchers have been methodically studying the crossings since 1996 to answer this. And it turns out that, yes, animals deterred by fencing that now runs the full 70 km length of the highway in the park actually cross the road. It takes them a while, though, to adapt to the crossings after a new one is constructed: about four to five years for elk and deer, five to seven years for the large carnivores.

Clevenger and colleagues with Montana State University's Western Transportation Institute recently concluded a three-year study and found that about 20% of the bears in the geographically broad sample population were using the crossings.

"The mitigation measures on the highway have basically restored connectivity across a major transportation corridor," Clevenger says, "as though the highway wasn't even there."

And through reducing the amount of money spent on a wildlife-vehicle-collision can save an insurance company millions. In Canada, the average cost of a moose-vehicle collision, in hospital bills, lost work and property damage, is nearly R300, 000.

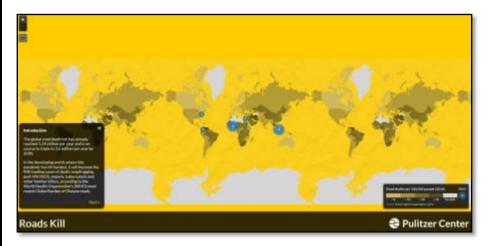
You may also like to view the following link from the US Fish and Wildlife Service who have created a video on "Innovative Approaches to Wildlife/Highway Interactions". This training video is of good quality and just 59 minutes in length. The link is:

http://link.brightcove.com/services/player/bcpid2418571380001?bckey=AQ~~,AAAAv1RRo7E~,NyPVtykdKxXS4ngQ8fvfJjriJu9x9-ot&bctid=2258885650001

The video reviews state-of-the-art approaches for addressing wildlife-highway interactions. Existing structures and solutions are shown and discussed by experts from across the country. Everything is presented in an instructional context and was designed to be relevant to both natural resource professionals and highway engineers who are seeking innovative approaches in highway planning and construction. It is also useful to those who may be exploring creative solutions to existing wildlife issues and/or retrofitting opportunities for ongoing projects.

# AND THE COST TO HUMAN LIFE .... Can we reduce this through effective mitigation measures that will also protect wildlife on roads?

More than 1.2 million are killed on the world's roads each year—and that number is increasing rapidly. If nothing is done to reverse this trend, the annual death toll is on course to triple by 2030.



The toll is highest in the developing world. Poor countries account for 50% of the world's road traffic, but 90% of the traffic fatalities. Road accidents will soon become the fifth leading cause of death in these countries, leapfrogging past HIV/AIDS, malaria, tuberculosis and other familiar killers, according to the World Health Organization's (WHO) most recent Global Burden of Disease study.

Highway fatalities are also a "poverty-inducing problem," according to Jose Luis Irigoyen, a highway safety expert at the World Bank. "It's costing on average between 1-3% of GDP" in low- and middle-income countries, he says, an amount that can offset the billions of dollars in aid money that these countries currently receive.

In 2010, the United Nations General Assembly unanimously adopted a resolution calling for a "Decade of Action" on road safety. The goal is to stabilize and eventually reverse the upward trend in road fatalities—saving an estimated 5 million lives during the period. The World Bank and other regional development banks have made road safety a priority, but according to Irigoyen, donor funding lags "very far below" the R240 billion that has been pledged to the Global Fund to fight AIDS, tuberculosis and malaria.

"Roads Kill" is a Pulitzer Center initiative that draws on its extensive global network of journalists to raise the visibility of this growing public health crisis. The entire project, including an interactive map and an ever-expanding roster of reports from around the world, is fully embeddable.

http://pulitzercenter.org/projects/roads-kill-traffic-safety-world-health-organization-united-nations-fatalities-pulitzercenter-reporting-interactive-map-data-visualization

#### REDUCING THE COST TO HUMAN LIFE ..... HAVE YOU CHECKED YOUR TYRES RECENTLY?



#### TWI AT HAND FOR RAIN SAFETY - BRIDGESTONE

With Spring just a few weeks away, drivers in summer rainfall areas should start thinking about the first rains and ensure their tyres are up to the job. This is the message from tyre maker Bridgestone who said that one of the best tools for determining tyre condition was the Tread Wear Indicator (TWI).



"The Tread Wear Indicator is an easy way to determine how much tread is left," said Bridgestone PR Manager, Mandy Lovell. "It's a raised bump in each tread groove which shows up once the tread has worn level with it. Once the tread has worn this far, the tyre must be replaced," she explained.

South African traffic law gives two conditions for tread depth – the tyre may either be worn to a maximum of 1mm of tread remaining over the entire tread surface of the tyre, or down to the TWI if the tyre has one. The TWI usually indicates a tread depth of 1.6mm. Many drivers are not aware that a tyre with an exposed TWI is illegal.

Legalities aside, a tyre with 1.6mm of tread

remaining is almost incapable of dispersing large quantities of water to ensure the tyre can remain in contact with the road. Tyres should be replaced once they have 3mm or less of tread remaining, to ensure continued safety by reducing the risk of aquaplaning, where a tyre which can no longer disperse enough water to remain in contact with the road, and instead skims along on top of the film of water.

"If there's enough water on the road or the vehicle's speed is high enough, even a brand-new tyre with full tread depth could aquaplane," Lovell explained. "A tyre worn to the TWI is unlikely to cope with the sudden deluge of water of a Gauteng thunderstorm."

Long dry periods result in drivers becoming accustomed to having high levels of steering and braking traction, and that this could lead to complacency setting in, in wet weather where traction can be half of what it is in the dry.

"Also remember that the roads have been accumulating all sorts of contaminants over the dry season: oil, grease, tyre debris, sand and gravel," she explained. "In the first rains of the season, all these contaminants will be mixed with



Tread Wear Indicator

rainwater, creating very slippery conditions for drivers with even the best tyres on their vehicles, and a potential deathtrap for drivers with worn or inferior tyres."

The TWI wear pattern could also reveal incorrect inflation or wheel alignment, and motorists are advised to have these aspects checked ahead of the first rains. "Ask your fitment centre to ensure your vehicle and tyres are ready to provide full traction when the heavens open. That way, you'll be able to stay safe in the rainy season," she concluded

#### **WE NEED YOU!**

#### Call for more volunteers.....



Thank you to our team of volunteers who are assisting us with roadkill data collection across the country – the ranks are growing and we are already starting to build up an interesting picture of what is happening in South Africa. BUT ..... we need more ....

By contributing wildlife roadkill data, you help us to understand where wildlife live and the threats they face from (mostly) human activities. It helps a lot if you contribute a picture of the animal with your observation. Don't worry if you can't identify an animal to the species level right away. A picture will help us to do it and just saying "rabbit" or "hawk" is useful information too.

You can upload your roadkill data either to:

 $\underline{https://docs.google.com/forms/d/1aWYevMj5ewLJUFHrt8Ddo7MjdJQtbslnsv4hhd}\\ E\_8tk/viewform$ 

or you can download our newly launched Smartphone app. which is simple and easy to use. Simply take a photo of the roadkill carcass (if it is safe to stop and do so), and then the app. will send it to our roadkill database.

The file can be downloaded from:

http://prismsw.com/roadwatch/android/RoadWatchSouthAfrica.apk

You can also contact us for more information at:

roads@ewt.org.za



## **RAIL**

# THE STORY BEHIND THE GRIZZLY BEAR STORIES



The Parks Canada Project with Canadian Pacific are working hard to reduce the number of Grizzly Bear deaths on the railway. These pictures show the bear firstly crossing the rail tracks, before bolting up a steep hillside as the train ruches by in the Bow Valley Parkway of Banff National Park, Canada (Photo credit: Leah Hennel).

## http://blogs.calgaryherald.com/2013/07/22/a-story-

There are only about 60 grizzlies in Banff National Park, where their biggest threat is getting hit on the transportation corridor.



Since 2000, 13 grizzlies were killed on the tracks in the mountain park and another two just outside its boundary. Another eight have died on the Trans-Canada Highway in the same period.

Survival in the protected area is considered critical because there are only about 700 grizzly bears throughout Alberta, leading the province to declare the species threatened.

#### **MARINE**

#### PORT OF MAPUTO STRIVES TO REDUCE TRANSPORT COSTS IN SOUTHERN AFRICA



The Port of Maputo is developing its capacity and port connectivity. The rehabilitation of a 1000 metre long quay, the development of new roads, and an increase in internal rail system capacity from 15 million to 50 million tons will take place over the next 7 years. The African Ports Evolution Forum sets the stage for first hand updates from Osorio Lucas, CEO of the Maputo Port Development Company, that will help you

reduce transport costs on significant volumes across the Southern continent.

The Port of Maputo currently serves South Africa, Zimbabwe and Swaziland, but aims to expand its services to offer competitive access to Zambia and Botswana. With investment estimated to be more than \$35 billion USD for Africa's largest ports alone, will there any be consideration for marine wildlife.

The years 1950 and 1970 saw an increase in the amount of fatal collisions between ships and large whales (i.e. whale greater than 10 m in length). However, the effects of marine vessels on marine life with particular regard to collisions are largely unknown in South Africa. There is no compulsory reporting to any authority. Whilst collisions might be regularly encountered few of these are ever reported or the outcome investigated. These can have negative impacts on marine life which include direct effects, such as physical injury, stress, perceptual interference, behavioral changes, and chronic responses, and indirect effects on predator species as a consequence of a change in prey distribution or abundance due to direct effects of marine vessels on the prey.

In recent years, concerns have been raised about the health and status of a range of marine species in South African waters. Disturbance and harassment from increasing inshore leisure traffic and a fascinated public have been identified as potential threats to these large marine species. This concern is coupled with a legislative framework that is perceived to be less effective in protecting key species than it could be, and difficult to enforce.

#### LION AIR PLANE HITS COW, SKIDS OFF RUNWAY IN INDONESIA

JAKARTA, Indonesia – A Lion Air jet carrying 117 people hit a cow while landing and skidded off a runway in eastern Indonesia. No injuries were reported, although the condition of the cow was unclear.

http://metronews.ca/news/world/759480/plane-hits-cow-skids-off-runway-in-indonesia/



#### **NEWS AND VIEWS**

#### **INDIANAPOLIS PRIZE NOMINEE**



Wendy is one of 39 conservationists who have been nominated to receive the biennial Indianapolis Prize, the world's leading award for animal conservation. The winner of the Prize will receive an unrestricted \$250,000 cash award and the Lilly Medal. Five other finalists will each receive \$10,000.

The nominees' work spans the globe and represents a broad range of species including chimpanzees, snow leopards, sea turtles, giant pandas, bats, swans and many more. An international Nominating Committee composed of renowned professional conservationists and local representatives reviews all nominations and selects six finalists, who will

be revealed in the spring of 2014. The Prize Jury will then determine the winner, who will be announced in mid-2014 and honored at the next Indianapolis Prize Gala presented by Cummins Inc., to be held Sept. 27, 2014, in Indianapolis.

"The current nominees are exceptional and they represent many of the most significant wildlife conservationists working in the field today," said Michael Crowther, president and CEO of the Indianapolis Zoo, which initiated the Indianapolis Prize as part of its core mission. "Increasingly more species are at risk of extinction, and these heroes deserve our recognition and support for their expertise, accomplishments, and tireless efforts protecting them. We encourage people around the world to celebrate the nominees' important work and to join them in advancing animal conservation."

In an EWT press release, Wendy said, "I'm extremely excited to have been nominated for this prestigious award and wish to thank the Indianapolis Prize for their consideration of the EWT's work with Roadkill mitigation."

The Indianapolis Prize was first awarded in 2006 to Dr. George Archibald, the co-founder of the International Crane Foundation. The 2008 winner was George Schaller, Ph.D., senior conservationist for the Wildlife Conservation Society and an icon in field conservation around the world. In 2010, the Indianapolis Prize was awarded to Iain Douglas-Hamilton, Ph.D., founder of Save the Elephants, who pioneered research in elephant social behavior and has led the way in fighting poaching of African elephants. Steven Amstrup, Ph.D., of Polar Bears International, received the 2012 Indianapolis Prize for his work promoting the cause of the world's largest land carnivore.

The Indianapolis Prize was initiated by the Indianapolis Zoo as a significant component of its mission to empower people and communities, both locally and globally, to advance animal conservation. This biennial award brings the world's attention to the cause of animal conservation and the brave, talented and dedicated men and women who spent their lives saving the Earth's endangered animal species. The Indianapolis Prize has received support from the Eli Lilly and Company Foundation since its inception in 2006.

http://www.indystar.com/article/20130828/LIFE/308280027?nclick\_check=1

#### **ECO-LOGICS FINALIST**

For the second year running, the Wildlife and Transport Programme are finalists in South Africa's annual Eco-Logic Awards. These Awards, initiated by the Enviropaedia and judged by a panel of highly respected, environmentally aware individuals, investigate a range of products, services and organisations with a view to recognising and rewarding those that have been produced in an eco-logical manner. The WLT has been recognised under the 'Transport Award', for its efforts to reduce the environmental impact of transport.



#### **ROADKILL AS ART**

**Coming** .... **2014:** We have been liaising with Marinda Combrinck, a distinguished South African wildlife artist, who will be showcasing the work of the WTP in Johannesburg and Cape Town next year. A seemingly macabre subject to paint, Marinda has managed to convey the subject with sensitivity, as well as portray 'the message'. She paints from her own roadkill photos as well as using many of Wendy's photos collected in the Greater Mapungubwe Transfrontier Conservation Area.





#### **Marinda Combrinck**

Born in Johannesburg in 1972, Marinda matriculated at the Pretoria Pro Arte School of Art after which she studied Fine Art at the Pretoria Technicon. After studying, the Pre-Raphaelite Gallery was opened where she started honing her own unique style as a fine artist. Since 2004 Marinda has been painting from her own Studio & Gallery in the Little Karoo town of Calitzdorp. Here she indulges her passion for the fauna and flora, landscapes & portraiture.

Marinda is currently working on her next exhibition, 'Roadkill', to be exhibited at Knysna Fine Arts and Everard Read, JHB in February 2014.

#### In Calitzdorp, Marinda's work can be viewed at:

- Marinda Combrinck Studio & Gallery
- The Salon @ die Handelshuis,
- Die Dorpshuis,
- · Karoo Life,
- Spekboom Cottages.

#### **Contact details:**

Mobile: 0799681588 Studio/Home: 044 213 3602 www.marindacombrinck.co.za Facebook: Marinda Combrinck Art E-mail: marinda.liza@telkomsa.net

#### **EVENTS**

#### **CONSERVATION OPEN DAY**

**September 2013**: Celebrating 40 years, the Wildlife & Transport Programme is organising an EWT open day on "Conservation in Action".

This will be held at Tussen-i-Bome which is close to the Dinokeng Game Reserve, South Africa's first free-roaming Big 5 residential game reserve in Gauteng on Saturday 14 September 2013 from 10h00 onwards. This one-day programme includes many presentations from nine of the EWT's programmes, with the aim being to engage with local landowners, as well as raise awareness of the work being conducted by the EWT.



Don't forget to bring the kids; we have many activities to keep them busy and introduce them to conservation, including an art project, treasure hunt, face painting, and a bird-spotting walk in the bush. Lunchtime snacks will be available and well as a number of stalls.

We encourage you to join us for a fun-filled day of conservation. Together we can "put the wild back into life"!

Please RSVP by 30 August to: Isabelle Tillett 084 224 1978 / clintw@vodamail.co.za

#### NATIONAL TRANSPORT MONTH IS COMING ..... OCTOBER 2013

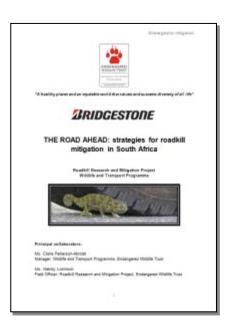
The Transport Month campaign is an annual feature on the calendar of the Department of Transport and is one of the platforms and vehicles through which the Department engages directly with its stakeholders.



Transport Month was first launched in October 2005 and seeks to raise awareness of the important role of transport in the economy, and to invite participation from civic society and business, in providing a safer, more affordable, accessible and reliable transport system for the country.

The WTP plans several events for this month including:

- Press releases covering a range of topics from general awareness, encouraging volunteers to submit data, promoting the use of the cellular smartphone app, specific comments on development etc.
- Launch of the handbook "The Road Ahead: strategies for roadkill mitigation in South Africa".
- Cocktail party to further promote our work and the importance of road ecology.
- The Annual Conference will be held.
- Attendance of the Diamond Route Conference.



#### **NEWSFLASH**

#### **GAUTENG'S 25-YEAR INTEGRATED TRANSPORT MASTER PLAN RELEASED**



Gauteng MEC for Roads and Transport, Dr Ismail Vadi, released a 25-Year Integrated Transport Master Plan (ITMP25) earlier this month in Ekurhuleni to ensure province-wide mobility in future for all residents.

"The ITMP25 proposes a radical paradigm shift in spatial and transport planning. It's a point of departure from apartheid spatial planning, land use and mobility patterns, and ushers in an innovative way of structuring our future societal development," said Vadi.

He added that the plan sets out a "strategic framework" to better the lives of residents, stimulate economic growth and render the province as an attractive destination for investment and tourism.

The 25 year plan, developed by an inter-disciplinary team of experts led by Gautrain CEO Jack van der Merwe, provides an assessment of the current transport and land-use challenges. It also forecasts economic and population growth scenarios, which have been used to plan the future transport needs and solutions in the province.

Van der Merwe reported that the ITMP25 predicts that Gauteng's population will increase from the current 12.3 million residents to 18.7 million and its working population will grow to 8.6 million, thereby increasing the passenger trips to approximately 25 million per day. This will result in serious traffic congestion.

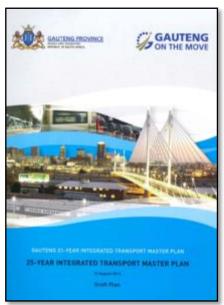
To facilitate the implementation of the ITMP25, eight mutually supportive "strategic interventions" have been identified.

Implementing the eight strategic interventions and other recommendations proposed by the ITMP25 would work towards achieving an integrated and efficient transport system that promotes sustainable economic growth, skills development and job creation; fosters quality of life; socially includes all communities, and preserves the environment, said Vadi.

To view more details of the launch, see:

http://www.sowetanlive.co.za/news/2013/08/19/gauteng-s-25-year-integrated-transport-master-plan-released

Claire was present at the launch and has been asked to submit comments regarding the draft. We will keep you updated.



#### AND CHECK OUT THE FOLLOWING LINKS FOR UPDATES ON OUR RECENT WORK....

http://allterrain.co.za/wildlife-under-the-wheels

http://blog.getaway.co.za/environment/conservation/saving-western-leopard-toad-extinction/ http://blog.getaway.co.za/environment/conservation/roadkill-global-epidemic-endangered-wildlife-trust/

http://endangeredwildlifetrust.wordpress.com https://www.facebook.com/EndangeredWildlifeTrust?fref=ts

#### THE WILDLIFE AND TRANSPORT PROGRAMME: PLEASE CONTACT US AT:

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To send roadkill sightings, photographs and data:

roads@ewt.org.za





## **PARTNERS AND THANKS**







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