

MINUTES

eThekwini Biodiversity Forum
 26 February 2015
 9h00 – 12h00
 Paradise Valley Nature Reserve



IN ATTENDANCE

Aerisha Ramkalawan	AR	Jo Douwes	JD	Nomafu Dlamini	ND
Arnia van Vuuren	AvV	Joanne Marais	JM	Nongcebo Hlongwa	NH
Barry Lang	BL	Kate Richardson	KR	Patty Mankowski	PM
Basheshile Thusi	BT	Kathryn Kasavel	KK	Richard Boon	RB
Bheka Nxele	BN	Khumbu Luthuli	KL	Roddy Ward	RW
Bhekani Ngubane	BNg	Kirstin Williams	KW	Rodney Bartholomew	RBa
Bheki Mdletshe	BM	Lee D'Eathe	LD	Sbusiso Mkhwanazi	SM
Chantal Taylor	CT	Lesly Frescura	LF	Simon Vines	SV
Cherise Harris	CH	Lisa Guastella-Smith	LGS	Sindisiwe Nzama	SN
Clive Walker	CW	Manisha Maganlal	MM	Stephanie Reynolds	SR
Danielle Thyssen	DT	Mbali Mkhize	MMk	Survarna Parbhoo	SP
Esmeralda Ramburran	ER	Melissa Gopaul	MG	Tony Wint	TW
Fatima Moola	FM	Himansu Baijnath	HB	Virginia Cameron	VC
Gerald Clarke	GC	Natasha Govender	NG	Warren Friedman	WF
Gillian Noyce	GN	Nick Liebenburg	NL	Zethu Gumede	ZG
Jabulani Khoza	JK	Nikara Mahadeo	NM	Zikhona Mthintso	ZM
Jean Senogles	JS	Nokuphila Buthelezi	NB		

APOLOGIES

Cllr Geoff Pullan, Jone Porter, Teddy Govender, Duane Constance, Janet Gates, Roger Poole, Mathieu Rouget, Lilian Develing, Jean Rodel, Jeanne Tarrant, Reshnee Lalla, Penny Price, Martin Clement, Di Higginson Keith, Rob Crankshaw, Wally Menne

1	WELCOME & INTRODUCTION	ACTION
1.1	Natasha Govender (NG) welcomed all and facilitated introductions. Apologies were noted as above. NG requested that a moment of silence be observed in honour of the late Councillor Jean Lindsay who passed away in December 2014. She stated that Jean will always be remembered for her role in the conservation of biodiversity in Durban.	
2.	PRESENTATIONS	
2.1	<i>Time's fun when you're having flies: the importance of green bottle blowflies.</i> Kirstin Williams	
2.1.1	Kirstin Williams (KW) thanked NG for the opportunity to present at this Biodiversity Forum. KW informed the meeting that her presentation will be based on her PhD which she	

	<p>completed in 2014 which looked at on <i>Lucilia sericata</i> and <i>Lucilia cuprina</i> which are both green bottle blowflies. The title of her PhD was Molecular Systematics and Biology of two closely related blowflies: <i>Lucilia sericata</i> and <i>Lucilia cuprina</i>.</p> <p>She outlined the reasons for selecting green bottle blowflies as follows:</p> <ul style="list-style-type: none"> • They are important for forensic entomology, • There are used in maggot debridement therapy for treating wounds, and • They are important in sheep strike (the laying of eggs by female flies in open wounds of sheep which could be fatal). <p>Methodology</p> <p>She informed the meeting that her research methodology focused on four areas namely;</p> <ul style="list-style-type: none"> • Hybridization studies: KW stated that specimens were received from various parts of South Africa and other countries as well. The data were sequenced into three genes and analysed using Bayesian and NeighBorNet analysis. • Morphological identification: KW informed the meeting that in this research area, 24 specimens were studied including known hybrids from genetic work. Eighteen characters from literature were used. Morphological characters for each specimen were scored. These were analysed using MDS scaling and Discriminant function analysis. • Geographical distribution of these species in South Africa. KW informed the meeting that MaxEnt as used for modeling and six climatic variables i.e. evaporation, humidity, maximum and minimum temperatures, rainfall and frost were used. • Biogeographical radiation of the subfamily, Luciliinae. She informed the meeting that four genera were sequenced and analysed using the Bayesian and NeighBorNet analysis technique. <p>Her findings</p> <p>KW informed the meeting that her main findings were that hybrids do exist and they can be determined from the morphology. <i>L. cuprina</i> and <i>L. sericata</i> can be distinguished morphologically.</p> <p>She also stated that from a geographical distribution perspective, both <i>Lucilia sericata</i> and <i>Lucilia cuprina</i> occur in most parts of South Africa and there is neither correlation between sheep farming and <i>L. cuprina</i> nor between human density and <i>L. sericata</i>.</p> <p>KW stated that four other species within the <i>Lucilia</i> genus show hybridization which affects barcoding identification. She further stated that <i>Lucilia</i> is one of four genera in the subfamily <i>Luciliinae</i> and that all these species are parasitic.</p> <p>Contact details: Kirstin Williams at Kirstin.Williams@durban.gov.za</p>	
2.1.1.1	<p>LGS queried the length of time it takes for these flies to reproduce and for maggots to form.. KW responded and stated that it takes between 18 – 24 hours depending on the temperature.</p>	

2.1.1.2	NG highlighted that KW has shown that green bottle blowflies are significant for medicinal use and asked if they have any ecological significance i.e., what is their value in nature. KW responded and informed the meeting that green bottle blowflies are largely decomposers and play an important role in nutrient recycling.	
2.1.1.3	LF queried what would happen if green bottle blowflies feed on a poisoned body. KW responded and indicated that in some instances, strychnine (the active ingredient in rat poison) has been shown to also result in the death of flies, however, the data are inconclusive. In one particular instance, live maggots were found on the body of a person that had died of a cocaine overdose. In this case, the poison did not affect the maggots.	
2.1.1.4	SM queried if the police forensic department conducts similar studies using green bottle blowflies to investigate cases. KW responded and stated that there is not enough impetus to use this field as it is not exact science, however, there have been a few cases where forensic entomologists have assisted with determining the time of death of bodies.	
2.2	<i>Durban 100 Resilient Cities Programme: Manisha Maganlal</i>	
2.2.1	<p>NG introduced Manisha Maganlal (MM) to present on the Durban's 100 Resilient Cities Programme.</p> <p>MM thanked NG for the opportunity to provide an update to the Biodiversity Forum on the Durban's 100 Resilient Cities Programme. MM informed the meeting that the 100 Resilient Cities Programme is an initiative of the Rockefeller Foundation.</p> <p>MM stated that the objective of this programme is to assist cities around the world to build urban resilience. She explained that 100 RC has defined resilience as "the capacity of individuals, communities, institutions, businesses and systems within a city to survive, adapt, and grow no matter what kinds of chronic stresses (e.g. unemployment, environmental degradation, etc) and acute shocks (e.g. flooding and natural disasters, etc) they experience".</p> <p>MM outlined the benefits of participating in the 100 Resilient Cities Programme as follows;</p> <ul style="list-style-type: none"> • Support for a Chief Resilience Officer, • Support to develop the resilience strategy, • Access to platform of service providers, and • Access to the network of cities. <p>MM indicated that Durban's involvement in the 100 RC Programme is being coordinated under Dr Debra Roberts, Deputy Head: Environmental Planning and Climate Protection Department (EPCPD) as the 'Chief Resilience Officer' (CRO) and is being supported by a Project Management team from the EPCPD, as well as by a cross-departmental municipal team and a number of external stakeholder groupings.</p> <p>MM informed the meeting that Durban was selected at the end of December 2013. Durban's resilience journey began with a scoping phase. MM indicated that the EPCPD identified early on in the process that Durban's Resilience strategy would need to be informed by the perspectives and insights provided by a range of different stakeholders. A key component of work in the scoping phase involved a consultative stakeholder engagement process with key stakeholders (which included members of the public, technical experts, municipal departments, city leadership and a group of 'critical thinkers')</p>	

to inform a locally relevant understanding of resilience. The end of the scoping phase culminated in the Resilience Agenda Setting Workshop, held in September 2014, which also marked the official launch of Durban's involvement in the 100RC Programme. She stated that the key ideas emerging from the Scoping Phase included;

- Addressing **inequality, unemployment** and rebuilding **societal fabric**
- Ensure **provision of services** like water and housing
- Planning differently by incorporating **ecosystems** as key **ecological infrastructure**
- Preparing for **climate change**
- Enhancing **transport infrastructure** to create access and opportunity
- **Energy infrastructure** for a low carbon future
- The importance of **good data** in informing planning and decision making
- Sound **financial** practices
- Building active and **engaged citizens**
- Building human resourcefulness
- Brave and **visionary leadership**
- The importance of **capacitated local government** administration in leading key processes
- **Rebuilding trust** between government and society
- Strengthening partnerships between government, businesses and communities
- Building a **political environment** that facilitates Durban's ability to respond to change
- Facilitating **platforms for conversation** to inspire new thinking and innovation

MM indicated that in Durban, 'resilience' is less about responding to disasters and more about slow-onset and systemic issues. Many of the issues being raised sit in the 'grey space' (e.g. governance, politics, social cohesion). MM indicated that 100RC Programme provides an important platform for reflection on the city system (regardless of resilience 'definition') and it provides an opportunity to think in innovative and transformative ways. MM indicated that Durban's resilience strategy will go beyond the 2 year programme. The 'Resilience Strategy' needs to support and strengthen, rather than replace, existing city strategies.

MM indicated that a key next step in Durban's 100 RC Programme will be a focussed engagement process with a range of stakeholders in Durban which builds on the initial consultation process. The purpose of this stakeholder engagement process is to prioritize resilience focus areas and identify possible areas for action for Durban's Resilience Strategy.

MM informed the meeting that the engagement with eThekweni Conservancies is set for the **10th April 2015 at Burman Bush Nature Reserve.**

MM closed by informing the meeting that the Quarterly Newsletter has been developed to keep the broader stakeholders updated on the progress made in Durban's 100 RC Programme. She indicated that members can subscribe to the quarterly newsletter by emailing 100RC@durban.gov.za and further information can be found on www.durban.gov.za/100RC

Contact details: Manisha Maganlal Email: Manisha.Maganlal@durban.gov.za

2.2.2	GN stated that it would be very interesting to see how other cities are defining resilience and get some input into how they are dealing with urban growth as this has a huge impact on delivering basic services. MM added that Durban will be studying local and global trends to take a reading of where Durban is when it comes to certain issues.	
2.2.3	SM raised concerns that Durban is more than just the city and that most of the eThekweni Municipal Area is predominantly rural. He also added that the success of the resilience strategy will depend on other neighbouring cities and towns participating. MM responded by stating that Durban is used interchangeably with eThekweni Municipality, so Durban in this instance includes rural areas of the City.	
2.2.4	It was queried how much the Rockefeller Foundation (RF) is financially contributing to this Programme. MM responded by stating that the RF is contributing by providing funds for the salary of the Chief Resilience Officer (CRO) but Durban had decided to use those funds to outsource the secretariat support for the Programme instead of employing someone as a CRO. The CRO position is occupied by Dr Debra Roberts. JD explained why Durban took a different approach to employing someone new for the CRO role. She further added that bringing someone from external carried a number of risks as it would have taken a significant amount of time for the new person to be familiar with municipal functions and systems.	
2.2.5	LF queried how much political support this programme is getting taking into consideration that the local government elections are taking place next year. MM responded by stating that the programme enjoys strong support from the political leadership and she does not foresee any changes should the leadership change after the elections.	
2.2.6	RBa noted that from a municipal perspective this is a massive programme and queried if there is any kind of formal structure of municipal sectors giving input. MM responded and stated that there is municipal technical sectors as one layer providing input on the programme.	
2.2.7	It was noted that MM mentioned strengthening partnerships and a query was raised on whether there are any plans to talk to businesses as well. MM responded by stating that business representatives were invited to the Resilience Agenda Setting Workshop and the business sector is part of the upcoming planned focussed engagements. MM also added that building and strengthening partnerships came up strongly during the scoping exercise.	
3	Updates from various municipal departments	
3.1	Updates from the Durban Natural Science Museum (DNSM) – Kirstin Williams	

3.1.1	<p>DNSM Mobile Museum: Kirstin Williams (KW) reported that there has been delays in launching the mobile museum that the Education Branch is using. The launch is now set for the end of March 2015.</p> <p>DNSM Volunteer Programme: KW informed the meeting that DNSM will be welcoming new volunteers as the tenure for the current volunteers came to an end on the 27th of February 2015.</p> <p>Biodiversity Seminar Series: KW informed the meeting that the next Biodiversity Seminar will be held on the 4th of March 2015 – 17:30 for 18:00 at the Durban Natural Science Museum Research Centre. The Guest Speaker will be Godfrey Vella and the seminar is titled : Durban’s Sand Pumping Scheme – Past and Present.</p> <p>Thola magazine: KW reported that now that she has finished her PhD, she will be taking back the editing responsibilities of the Thola Magazine. The next edition will be out in June 2015 and KW reminded contributors to start working on their inputs.</p> <p>For more information contact: Kirstin Williams at Kirstin.Williams@durban.gov.za</p>	
3.1.1.1	GN queried how many learners the Mobile Museum can accommodate. SN responded and stated that the Mobile Museum can accommodate 60 learners at a time.	
3.1.1.2	LF congratulated KW on finishing her PhD.	
3.2	Updates from the Environmental Planning and Climate Protection Department (EPCPD)	
3.2.1	<p>EThekweni Municipality Reforestation Research Partnership Update: NG introduced Nokuphila Buthelezi (NP) who has been recently appointed as a Facilitator for the Reforestation Research Partnership.</p> <p>NP thanked NG for the opportunity and gave a brief project update on the Reforestation Research Partnership.</p> <p>NP informed the meeting that since project inception in July 2014, 12 students have been approved to start their research 2015 (including MSc and PhD students). Their research focuses on all sites where rehabilitation is taking place (Buffelsdraai, Inanda Mountain and Paradise Valley)</p> <p>She further informed the meeting that the project uses principles of transdisciplinary research, integrating knowledge from various disciplines (Biophysical, Social and Economic).</p> <p>NP stated that the initial phase of screening the students who qualify has been done and Principal Investigators have allocated projects to different students. She also reported that the first research meeting took place on the 23rd of February 2015 and at the next meeting students will be presenting their proposals.</p>	
3.2.2	<p>EThekweni Mayoral Awards 2015 Update: Bheki Mdletshe (BM) reminded the meeting that nominations for the eThekweni Mayoral Awards 2015 are now open. He also stated that should forum members want to nominate an individual or a group for the Biodiversity Category, the nomination forms and the criteria will be circulated with the minutes.</p> <p>Further information can be obtained from Casandra Schnoor via email at</p>	

	Cassandra.Schnoor@durban.gov.za	
3.2.2.1	It was queried when the closing date for nominations is. JD responded and stated that the closing date is the end of August 2015.	
3.3	Updates from the Natural Resources Division – Kenneth Mabila	
3.3.1	Establishment of the Conservancy Forums: Kenneth Mabila (KM) informed the meeting that as Natural Resources Division (NRD) they recognise the important role played by conservancies in conserving biodiversity and have decided to revitalise the Conservancies Forum. KM further informed the meeting that conservancies have been clustered into zones and representatives from each zone will provide feedback to Parks Department senior management.	
3.3.1.1	It was requested that the contact details of all the proposed zones be circulated with the minutes.	BM
3.3.1.2	It was queried when the Conservancies Forum and Conservancies Zone meetings have their meetings. KM responded and stated that the Conservancies Forum meet quarterly and the conservancies have their own monthly meetings.	
3.3.1.3	SM added that the reason for the Conservancies Forum is to improve coordination between NRD and conservancies.	
3.3.2	Old Eco-Centre Upgrade: KM informed the meeting that NRD is currently refurbishing the old Eco Centre that was leased to Larry Singh at the Isipingo Beach. He further informed the meeting that the lease has lapsed and the building had been left dilapidated. NRD is renovating the building for public use.	
3.3.2.1	AvV queried if NRD will be putting in new infrastructure. KM responded by stating that they will be renovating the building. AvV queried on what will happen if the digout port is approved i.e., won't this building be demolished? SM responded by stating that the digout port might take some years before it happens and in the meantime the public can use the building. GN stressed that the digout port is at a conceptual stage and is not a guarantee.	
3.3.2.2	NG queried on what the building will be used for. KM responded by stating that it will be used for nature conservation related activities such as environmental education. SM urged members to use this building for conservation activities.	
4.	General	
4	NG informed the meeting that the two speakers who were going to give updates have indicated that they would not be able to attend the meeting due to car problems. She also informed the meeting that due to load shedding that kicked in during the tea break, it was not going to be possible to project presentations.	
4.1	Palmiet River Watch: Lee D'Eathe (LD) thanked NG for the invite and informed the meeting that he had prepared a powerpoint presentation and due to load shedding he will be unable to share with the meeting the issues experienced along the Palimet River catchment.	
4.1.1	NG informed the meeting that LD will be given a slot to present at the next Forum meeting	

	in May.	
4.2	<p>LD stated that at the last meeting he raised a question on clearing of gums indiscriminately and that the question was not adequately answered. He further reported that he attended another meeting where a document titled: Gums and Bees – A roadmap for landowners in South Africa was circulated. LD informed the meeting that this document has very useful information on which gum tree species to clear.</p> <p>The document can be found on the link below: http://www.sanbi.org/sites/default/files/documents/documents/gumsbees-web-version-hyperlinks.pdf</p> <p>A note from EPCPD regarding the ‘Gums and bees publication: The document is relevant for urban or extensive farmland environments where natural open space is very limited. In the case of Durban where we have significant areas of natural forest, woodland and grassland which include a vast number of indigenous flowering plants that support numerous nectar/pollen dependant species such as butterflies, moths, ants, carpenter bees, beetles, and honey bees, this sort of publication must be read in context.</p> <p>The gum trees which are cleared are of the species <i>Eucalyptus grandis</i> which is extremely invasive in our local environment. Allowing <i>E. grandis</i> to proliferate, will result in our grasslands and woodlands being transformed. While this may be okay for bees, butterflies (especially those which are extremely selective) and other insects will have their food source removed and will become locally extinct.</p> <p>It's important to remember that indigenous bees have evolved with our local flora i.e. prior to alien plants they only had indigenous plants to utilise. If we manage our natural environment properly, and ensure a diversity of woody and herbaceous flora, we will ensure that bees, and indeed all of Durban’s insects, are conserved. The document does allude to this in the last section.</p> <p>Where the landscape is effectively denude of any indigenous species, such as the pictures of the farmstead surrounded by farmland in the pamphlet, then it is agreed that retention of gums is critical as it's probably the only food source left in that particular landscape.</p>	
4.3	<p>Fishing lines on the coast update: Following from the update given at the last meeting about problems created by fishing lines on the coast, LF displayed the bins that are currently being piloted along the coast in the Amanzimtoti area. She also informed the meeting that The Centre for Rehabilitation of Wildlife (CROW) has offered their Education Centre for the meeting to find a way forward on the matter. LF appealed to anyone who wants to attend the meeting to talk to her after the meeting.</p>	
4.3.1	LGS asked if the date of the meeting has been set. LF responded and stated that the date has not been set yet.	
4.3.2	LD asked if there is any logo on the bins so that people can easily identify them. LF responded and stated that in Amanzimtoti area there was an advert to let people know about it.	
4.3.3	SM asked if Birdlife has thought about engaging fishermen on the issue. He further proposed that Birdlife do a short presentation at the NRD management meeting on what fishing lines do to birds and bring the bins so that city can know about the project and determine where they may be able to assist.	

4.3.4	LGS added that turtles need to be included in this project as fishing lines on the coast does not only affect birds.	
4.4	NG presented a newspaper article in the Mercury regarding the invasive alien species management being conducted by the Kloof Conservancy.	
5.	Close of meeting	
5.1	<p>NG thanked all for attending and closed the meeting. The next Biodiversity Forum meeting will take place on 28th May 2015 at Paradise Valley Nature Reserve from 9 am to 12 pm.</p> <p>Upcoming Biodiversity Forum meetings for 2015</p> <p>28th May 2015 – 9am – 12pm 27th August 2015 – 9am – 12pm 26th November 2015 - 9am -12pm</p>	

