

# PROGRAMME

4 July 2017



## CSIR, PRETORIA 3-7 JULY 2017

2017 COMBINED CONGRESS OF THE  
ENTOMOLOGICAL AND ZOOLOGICAL  
SOCIETIES OF SOUTHERN AFRICA  
TO BE HELD AT THE CSIR  
INTERNATIONAL CONVENTION CENTRE,  
PRETORIA, SOUTH AFRICA

### MONDAY 3 JULY 2017

TIME	DIAMOND AUDITORIUM (capacity: 450)	RUBY AUDITORIUM (capacity: 136)	EMERALD AUDITORIUM (capacity: 100)	AMETHYST ROOM (capacity: 140)
15:00-18:00	REGISTRATION in the Central Foyer			
18:00-18:30	Registrations closed			
18:30-20:30	WELCOMING RECEPTION in the Central Foyer			

### TUESDAY 4 JULY 2017

TIME	DIAMOND AUDITORIUM (capacity: 450)	RUBY AUDITORIUM (capacity: 136)	EMERALD AUDITORIUM (capacity: 100)	AMETHYST ROOM (capacity: 140)
08:00-09:00	REGISTRATION in the Central Foyer			
09:00-09:30	Welcome and opening address Overflow seating with live stream			
09:30-10:30	PLENARY SPEAKER: PROF. PHIL STEVENSON Overflow seating with live stream			
10:30-11:00	BREAK - Morning tea in the Central Foyer			
	RESPONSES TO CHANGING ENVIRONMENTS	SCIENCE FOR SOCIETY: CONDUCTING RESEARCH AND TEACHING THAT TRULY REACHES SOCIETY	DISEASES, PARASITES AND VECTORS	BIOGEOGRAPHY, TAXONOMY AND SYSTEMATICS
Chair:	Michelle Thompson	Aliza le Roux	Darren Pietersen	Sasha Hoffman
11:00-11:15	0015. S. Cunningham. Trade-offs between foraging and thermoregulation underpin sublethal costs of climate change in birds	PLENARY SPEAKER EMIL VON MALTITZ	0413. D. Kleynhans. Diversity and Prevalence of <i>Bartonella</i> in <i>Gerbillus nanus</i> from Saudi Arabia	0043. I. Millar. Current progress in providing digital access to the primary type specimen holdings of the South African National Collection of Insects
11:15-11:30	0017. D. Ehlers Smith. Thresholds in forest- fragment size are indicated by a reduction in avian functional diversity and forest specialists	PLENARY (Continued)	0146. S. Heighton. Scaly bacteria: the quest to identify pangolin pathogens	0008. D. Bakkes. Evaluation of measurement error in rotational mounting of <i>Rhipicephalus</i> (Acari: Ixodida: Ixodidae) species in geometric morphometrics



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11:30-11:45	0018. <b>Y. Ehlers Smith.</b> The importance of microhabitat structure in maintaining forest mammal diversity and abundance in a mixed land-use mosaic	0164. <b>C. Acker-Cooper.</b> Nurturing Citizen Scientists through local employment in the conservation sector	0188. <b>L. Retief.</b> Detection of novel haemoplasma strains in four species of free-living bathyergids from the Western Cape Province, South Africa	0208. <b>A. Gilbert.</b> Seasonal abundance of forensically related flies from greater Johannesburg
11:45-12:00	0022. <b>A. McKechnie.</b> Phylogenetic variation in heat tolerance and evaporative cooling capacity among Kalahari Desert birds	0129. <b>M. Hamer.</b> Generating foundational biodiversity information that addresses the needs of society	0182. <b>L. Lobb.</b> Optimisation and evaluation of novel adult trapping methods to be used in surveillance of the malaria vector <i>Anopheles arabiensis</i>	0019. <b>S. van Noort.</b> Assessing species richness of one of Africa's most diverse insect families (Ichneumonidae, Hymenoptera)
12:00-12:15	0047. <b>M. Maseko.</b> Response of Crested Guinea-fowl ( <i>Guttera edouardi</i> ), a forest specialist, to spatial variation in land use in iSimangaliso Wetland Park, South Africa	0180. <b>M. Cherry.</b> Research and politics: Mbeki's denialism of HIV-AIDS	0312. <b>S. Eiseb.</b> Prevalence of haemoparasites on small mammals in fallow-lands within Mukwe Constituency, Kavango East Region, Namibia	0255. <b>S. Faure.</b> Systematics of the Afrotropical Chalcididae (Chalcidoidea: Hymenoptera)
12:15-12:30	0046. <b>M. Rat.</b> The impact of elevated temperatures on social networks of a highly communal passerine	0423. <b>N. Mzilikazi.</b> Enhancing equity of student access, success and throughput using funding	0197. <b>A. le Grange.</b> Prevalence and diversity of tick-borne Anaplasmataceae in indigenous, commensal rodents (Rodentia: Muridae and Nesomyidae) from Gauteng Province, South Africa	0127. <b>G. Daniel.</b> Taxonomic overview of the tribe Sisyphini (Scarabaeinae: Scarabaeidae: Coleoptera) in southern Africa
12:30-12:45	0131. <b>M. Leitner.</b> Bush encroachment slows decomposition and termite activity in an African savanna	0228. <b>A. le Roux.</b> Must science #fall for a real connection to be forged with society?	0071. <b>D. Tagwireyi.</b> Seroprevalence and associated risk factors of <i>Toxoplasma gondii</i> infection in domestic animals in the O.R Tambo District, South Africa	0021. <b>P. Taylor.</b> Integrative taxonomy resolves species limits and identification of cryptic small rhinolophid bats in Southern Africa
12:45-13:00	0345. <b>K Alujević.</b> The evolution of complex phenotypes in lizards: can multiple physiological functions be optimized at the same time?	<b>Open discussion</b>	0334. <b>E. Roos.</b> IP-10 a promising biomarker for the detection of <i>Mycobacterium bovid</i> infection in warthogs	0337. <b>D. Main.</b> Phylogeny of the genus <i>Chamaeleo</i> and an investigation of cryptic speciation in the common flap-necked chameleon ( <i>Chamaeleo dilepis</i> )
13:00-13:15	0033. <b>C. Owen.</b> A potential new methodology for determining thermal tolerance in insects: Are current methods accurate enough?	<b>Open discussion</b>	0240. <b>H. Thatcher.</b> Can parasitic load be used to measure the effect of anthropogenic disturbance on Vervet Monkeys ( <i>Chlorocebus aethiops</i> )	0186. <b>W. Conradie.</b> Unmasking evolutionary diversity among two closely related South African legless skink species (Acontinae: Acontias) using molecular data
13:15-14:30	<b>LUNCH on the Deck</b>			
13:30-14:30	<b>Lunchtime workshop: Career paths in the Ruby auditorium</b>			
	<b>RESPONSES TO CHANGING ENVIRONMENTS (Continued)</b>	<b>SOCIAL INSECTS IN AFRICA: UNITING A CROSS-DISCIPLINARY RESEARCH COMMUNITY</b>	<b>DISEASES, PARASITES AND VECTORS (Continued)</b>	<b>BIOGEOGRAPHY, TAXONOMY AND SYSTEMATICS (Continued)</b>
<b>Chair:</b>	<b>Sarita Maree</b>	<b>Tom Bishop</b>	<b>Armanda Bastos</b>	<b>Chris Chimimba</b>
14:30-14:45	0073. <b>N. Weyer.</b> Kalahari aardvarks on the edge: drought-induced resource deficiency may compromise aardvark survival under climate change	0089. <b>R. Crewe.</b> Sex pheromone doubles as social regulator in honey bee societies	0342. <b>P. Tshikae.</b> A review of odyssean malaria outbreaks in South Africa 2014-2017	0085. <b>B. Jansen van Vuuren.</b> Genetic information at different spatial scales: Southern Ocean islands as study sites



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14:45-15:00	0075. <b>N. Gotcha.</b> Plasticity and cross tolerance to heterogeneous environments: divergent stress responses co-evolved in an African fruit fly	0041. <b>E. Mauda.</b> Changes in landuse alter ant diversity, assemblages and dominant functional traits in African savannas	0007. <b>C. de Beer.</b> Evaluation of Tiny Targets as additional control technique for <i>Glossina austeni</i> and <i>Glossina brevipalpis</i> populations in South Africa	0092. <b>D. Monsanto.</b> Unravelling the fine-scale spatial genetic structure of a springtail on sub-Antarctic Marion Island
15:00-15:15	0140. <b>S. Malematja.</b> Heat tolerance and evaporative cooling capacity in speckled mousebirds ( <i>Colius striatus</i> )	0152. <b>L. Bester.</b> Temperature, pesticides and honey bees - A hot mess?	0056. <b>G. Munhenga.</b> Development of sex separation tools to eliminate female <i>Anopheles arabiensis</i> during mass production: Progress and challenges	0100. <b>H. Webster.</b> The spatial genetic structure in the eastern rock elephant shrew, inferred from mitochondrial and nuclear data
15:15-15:30	0063. <b>A. Bourne.</b> Field-testing a non-invasive doubly labelled water technique for measuring physiological heat stress in Southern Pied Babblers	0194. <b>M. Robertson.</b> Elevation gradients: natural laboratories to better understand diversity patterns and processes	0105. <b>H. Human.</b> What is sustaining the 'capensis calamity'?	0114. <b>L. Tensen.</b> Population connectivity of two large carnivore species in Zimbabwe
15:30-15:45	0145. <b>S. Naidoo.</b> Feast now, pay later: The cost offForaging at wastewater works for an urban adapter, the Banana Bat ( <i>Neoromicia nana</i> )	0177. <b>S. Mustafa.</b> Mass reproduction in the small hive beetle, <i>Aethina tumida</i> : key to suppression of its honey bee host, <i>Apis mellifera</i> , and an example of "emancipation" in beetles	0385. <b>J. Coertzen.</b> The dissemination of fungal pathogens on avocado trees in South Africa, with reference to the vector potential of insects	0014. <b>J. Visser.</b> Evolution of the South African Bathyergidae: Patterns and processes
15:45-16:00	0163. <b>M. Noakes.</b> Phenotypic flexibility in heat tolerance of a passerine species: a direct test of behavioural and physiological acclimatisation to hotter conditions	0078. <b>C. Munyai.</b> Impacts of grazing, fire and blue gum plantation on ant diversity at Ukulinga Research farm in Pietermaritzburg, KwaZulu-Natal	0084. <b>M. Kaiser.</b> A mark-release-recapture pilot trial using colonised <i>Anopheles arabiensis</i> in Mamfene, KwaZulu-Natal	0193. <b>D. Pietersen.</b> Taxonomy of the avian genera <i>Anthus</i> , <i>Macronyx</i> and <i>Tmetothylacus</i> (Aves: Motacillidae) in sub-Saharan Africa
16:00-16:30	<b>BREAK - Afternoon tea in the Central Foyer</b>			
	<b>RESPONSES TO CHANGING ENVIRONMENTS (Continued)</b>	<b>SOCIAL INSECTS IN AFRICA: UNITING A CROSS-DISCIPLINARY RESEARCH COMMUNITY (Continued)</b>	<b>DISEASES, PARASITES AND VECTORS (Continued)</b>	<b>BIOGEOGRAPHY, TAXONOMY AND SYSTEMATICS (Continued)</b>
<b>Chair:</b>	<b>Michelle Thompson</b>	<b>Heather Campbell</b>	<b>Armanda Bastos</b>	<b>Sarita Maree</b>
16:30-16:45	0175. <b>A. Jeanrenaud.</b> Interspecific competition between <i>Culex quinquefasciatus</i> and <i>Anopheles arabiensis</i> under polluted conditions	0428. <b>C. Pirk.</b> Interface between managed and wild honey bees in South Africa	0066. <b>E. Agubuzo.</b> Effect of radiation on longevity of an <i>Anopheles arabiensis</i> strain targeted for SIT releases	0037. <b>M. Hamer.</b> The Natural Science Collections Facility
16:45-17:00	0216. <b>B. Smit.</b> Physiological underpinnings of local adaptation in a southern African endemic bird	0151. <b>T. Bishop.</b> Life on the Dragon's Back: the cold, not the heat, limits the distribution and behaviour of montane ants	0189. <b>M. Samuel.</b> The effect of inorganic fertiliser pollution on the life history of the <i>Anopheles arabiensis</i> vector mosquito	0417. <b>A. Ellis.</b> The importance and evolution of the underappreciated keystone fly pollinators of Namaqualand
17:00-17:15	0235. <b>A. Botha.</b> The effect of diet restriction on core body temperature patterns in captive African buffalo exposed to hot summer conditions	0179. <b>F. Mumoki.</b> <i>Apis mellifera scutellata</i> queens can control reproductive parasitism in <i>A. m. capensis</i> clones by blocking production of the "queen substance"	0330. <b>B. Kay.</b> Evaluation and comparison of various plant extracts for the management of <i>Lucilia sericata</i>	0095. <b>J. Kemp.</b> Herbivorous insect communities are coupled to plant species and phylogenetic community composition across short spatial scales in the Cape Floristic Region





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17:15-17:30	0211. <b>K. Oswald.</b> Do seasonal physiological responses to heat explain climate change vulnerability in a Fynbos endemic bird?	0372. <b>S. Foord.</b> Habitat, aspect and elevation interact to affect the relative roles of turnover and nestedness in explaining ant beta diversity across the Soutpansberg	0029. <b>A. Burke.</b> Winter is coming: the overwintering survival strategy of the African malaria vectors, and their responses to dry-season conditions	0117. <b>J. Harrison.</b> Rhinoceros beetles of southern Africa: a planned book
17:30-18:30	<b>ESSA AGM in the Ruby auditorium</b>			
	<b>END DAY 1</b>			
19:00-23:00	<b>STUDENT FUNCTION at Aandklas, Hatfield</b>			

## WEDNESDAY 5 JULY 2017

TIME	DIAMOND AUDITORIUM (capacity: 450)	RUBY AUDITORIUM (capacity: 136)	EMERALD AUDITORIUM (capacity: 100)	AMETHYST ROOM (capacity: 140)
08:30-09:00	<b>REGISTRATION in the Central Foyer</b>			
09:00-10:00	<b>PLENARY SPEAKER: PROF. DANIEL SIMBERLOFF</b> Overflow seating with live stream			
	<b>ANNUAL RESEARCH SYMPOSIUM ON THE MANAGEMENT OF BIOLOGICAL INVASIONS IN SOUTHERN AFRICA</b>	<b>RESPONSES TO CHANGING ENVIRONMENTS (Continued)</b>	<b>REPRODUCTION AND DEVELOPMENT</b>	<b>BIOGEOGRAPHY, TAXONOMY AND SYSTEMATICS (Continued)</b>
<b>Chair:</b>	<b>Hildegard Klein</b>	<b>Pieter Olivier</b>	<b>Ezette du Rand</b>	<b>Sandra Mustafa</b>
10:00-10:15	<b>MANAGEMENT PROCESSES AND SOCIAL EFFECTS</b> 0038. <b>S. Kumschick.</b> A risk analysis framework for the listing of alien species under regulations	0251. <b>A. Ganswindt.</b> Non-invasive monitoring of endocrine markers in wildlife	0201. <b>C. Weldon.</b> Thermal preference of male <i>Ceratitis capitata</i> (Wiedemann) (Diptera: Tephritidae) reflects higher sexual performance at warmer temperatures	0254. <b>B. Grobbelaar.</b> Longhorn beetles: the good, the bad and the ugly (Coleoptera: Cerambycidae)
10:15-10:30	0076. <b>A. Novoa.</b> Initiating global action for managing cactus invasions	0215. <b>P. Singh.</b> Hadedda ibis ( <i>Bostrychia hagedash</i> ) urban nesting, roosting and activity in Pietermaritzburg, KwaZulu-Natal, South Africa	0204. <b>Y. Dahan-Moss.</b> Study of the sexual maturity and mating of the <i>Anopheles funestus</i> male	0343. <b>Z. Mbo.</b> A revision of the endemic South African spider genus <i>Drassodella</i> Hewitt, 1916 (Araneae: Gallieniellidae)
10:30-10:45	<b>SPEED TALKS</b> 0101. <b>E. J. Jones</b> 0358. <b>N. Senoge</b> 0357. <b>K. Jama</b> 0353. <b>B. Slippers</b>	0273. <b>E. Kheswa.</b> Habitat use and predator influence on honey badgers in iSimangaliso Wetland Park, South Africa	0308. <b>M. van Rooyen.</b> Impaired reproductive performance of female Southern white rhinoceros ( <i>Ceratotherium simum simum</i> ) in captive environments	0347. <b>P. Maake.</b> New predatory mites' species of the genera <i>Eustigmaeus</i> Berlese, 1910 and <i>Eryngiopus</i> Summers, 1964 from citrus in Florida, USA (Acari: Stigmaeidae)
10:45-11:00	0169. <b>K. T. Faulkner</b> Prioritising surveillance for marine organisms transported as stowaways on ships	0275. <b>T. van de Ven.</b> To fledge or not to fledge? Hot days limit hornbill reproductive success	0354. <b>K. Medger.</b> Effects of food restriction and photoperiod on reproduction in male spiny mice: Evidence for terminal investment?	0171. <b>P. Tshililo.</b> Integrated taxonomy of the endemic Karoo agile grasshoppers (Orthoptera: Acrididae: Euryphyminae)
11:00-11:30	<b>BREAK - Morning tea in the Central Foyer</b>			



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	ANNUAL RESEARCH SYMPOSIUM ON THE MANAGEMENT OF BIOLOGICAL INVASIONS IN SOUTHERN AFRICA (Continued)	RESPONSES TO CHANGING ENVIRONMENTS (Continued)	REPRODUCTION AND DEVELOPMENT (Continued)	MOVEMENT
<b>Chair:</b>	<b>Hildegard Klein</b>	<b>Andrew McKechnie</b>	<b>Marietjie Oosthuizen</b>	<b>Sandra Mustafa</b>
11:30-11:45	0421. <b>D. le Maitre.</b> Guidelines and tools for planning and management of alien plant species invasions	0281. <b>N. Pattinson.</b> Seasonal behavioural responses of an arid-zone passerine in a hot environment	0133. <b>K. Pentz.</b> How do pollinating fig wasp mothers adjust their sex ratios?	0332. <b>C. Tocco.</b> Built for business? Dung beetle morphology and time of flight
11:45-12:00	0396. <b>R. Thifhulufhelwi.</b> Re-thinking Invasive Alien Plant control as a social process in a complex system: The case of the Blyde Catchment	0325. <b>M. Molepo.</b> Foraging behaviour and thermal physiology in Cape Sugarbirds: Sex-specific responses to temperature	0013. <b>S. Mnguni.</b> Behavioural observation experiments of cryptic species of <i>Eccritotarsus</i> sp. (Carvalho) (Hemiptera: Miridae), biological control agents of water hyacinth	0187. <b>A. Rebelo.</b> Frog Olympics: exploring the locomotory ecomorphology of the pyxicephalid radiation in southern Africa
12:00-12:15	<b>SPEED TALKS</b> 0392. <b>L. Molekoa</b> 0397. <b>J. Mukarugwiro</b> 0370. <b>A. L. Padayachee</b> 0053. <b>B. Nxele</b>	0338. <b>I. Minnaar.</b> Thermal adaptation of the harlequin ladybird, <i>Harmonia axyridis</i> , to variable environments: a multigenerational experiment	<b>POPULATION AND COMMUNITY ECOLOGY</b> 0061. <b>M. Wondafrash.</b> Novel natural enemy encounters of an invasive forest insect pest	0405. <b>E. Snelling.</b> Scaling of the muscle-tendon energy recovery system in the lower hindlimbs of the kangaroo <i>Macropus fuliginosus</i>
12:15-12:30	0391. <b>J. le Roux.</b> Understanding the impacts of invasive legumes on soil microbial community composition and function in South Africa's Cape Floristic Region	0380. <b>S. Coetzee.</b> Thermal tolerance in the grain chinch bug, <i>Macchiademus diplopterus</i> , and the influence of controlled atmospheres for post-harvest control	0239. <b>M. Trisos.</b> Disturbing resource hotspots: drought impacts on vegetation and insect communities around termite mounds	0248. <b>M. Mole.</b> Do elephants migrate?
12:30-12:45	0362. <b>A. Qongqo.</b> The role of phytopathogenic fungi in limiting plant invasions: The case of Australian <i>Banksia</i> (Proteaceae) in South Africa	0403. <b>K. Krüger.</b> Response of aphids to heat waves and drought	0292. <b>J.-H. Daneel.</b> Natal fly versus the Cape fly (Diptera: Tephritidae) in the Limpopo and Mpumalanga provinces, South Africa	0191. <b>C. Price.</b> Aspects of the spatial and population ecology of two terrapin species in KwaZulu-Natal, South Africa
12:45-13:00	<b>SPEED TALKS</b> 0074. <b>K. V. Nkuna</b> 0183. <b>D. Saccaggi</b> 0329. <b>B. Hurley</b>	0410. <b>K. Haylock.</b> Sable antelope display flexibility in body temperature regulation and behavioural patterns during the dry season	0294. <b>A. Manrakhan.</b> The Oriental fruit fly: Four years after first establishment in the northern areas of South Africa	0064. <b>M. Kral.</b> Small mammal landscape corridor usage in a fragmented grassland ecosystem in the Mpumalanga Province, South Africa
13:00-13:15	0088. <b>M. P. Hill.</b> Community based implementation is vital to the wide-scale success of weed biological control in South Africa	<b>Open discussion</b>	0302. <b>O. Mlonyeni.</b> Diversity in <i>Sirex-Amylostereum-Deladenus</i> complex: Understanding pest invasion and guiding management through biological control	0157. <b>E. Church.</b> Intersite movements and associations of southern elephant seals ( <i>Mirounga leonina</i> ) ashore at Marion Island
13:15-14:30	<b>LUNCH on the Deck</b>			
13:30-14:30	<b>Lunchtime workshop: Applications for funding in the Ruby auditorium</b>			



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	ANNUAL RESEARCH SYMPOSIUM ON THE MANAGEMENT OF BIOLOGICAL INVASIONS IN SOUTHERN AFRICA (Continued)	SOUTHERN AFRICAN SOIL BIOTA IN A CHANGING CLIMATE	POPULATION AND COMMUNITY ECOLOGY (Continued)	SUSTAINABLE EXPLOITATION AND PRODUCTION
Chair:	Brett Hurley	Charlene Janion-Scheepers	Mark Robetson	Gudrun Dittrich-Schröder
14:30-14:45	<b>PLENARY SPEAKER: DR. JIM TAYLOR</b>	0356. <b>C. Janion-Scheepers.</b> A need for knowledge of soil biota ecological function in southern Africa	0054. <b>R. Mutamiswa.</b> Species diversity and abundance of lepidopteran stem borer natural enemies in Botswana	0024. <b>H. Machekano.</b> Diamondback moth pest status in Botswana: current control methods, perceptions and knowledge on alternative pest management options
14:45-15:00	<b>PLENARY (Continued)</b>	0364. <b>W. Swart.</b> Direct and indirect effects of abiotic factors on the rhizosphere microbiome of selected plants: Implications for measuring the impact of climate change	0210. <b>K. R. Pillay.</b> Aspects of the ecology of vervet monkeys in urban eThekweni, KwaZulu-Natal, South Africa	0058. <b>M. Acheampong.</b> Suitability of entomopathogenic fungal isolates for microbial control of citrus pests: biological traits and effect of formulation
15:00-15:15	<b>PLENARY (Continued)</b>	0154. <b>A. Jacobs.</b> Soil <i>Fusarium</i> survey of the grassland biome of South Africa	0229. <b>J. M. Greef.</b> Dispersal and mating patterns of the parasitic nematode, <i>Spirocerca lupi</i>	0107. <b>W. Kirkman.</b> Postharvest detection of <i>Thaumatotibia leucotreta</i> in citrus fruit in South Africa
15:15-15:30	<b>NEW INVADERS</b> Session chair: Brett Hurley <b>SPEED TALKS</b> 0268. <b>P. Dlamini</b> 0059. <b>G. Wilson</b> 0195. <b>A. Gouws</b> 0409. <b>L. Foxcroft</b>	0262. <b>H. Badenhorst.</b> The effect of pollutants and agricultural practices on soil mesofaunal assemblages	0340. <b>S. Hoffmann.</b> Dispersal patterns and animal personality in the eastern rock sengi ( <i>Elephantulus myurus</i> )	0110. <b>G. Prinsloo.</b> Response of wheat aphids to plants treated with volatile substance
15:30-15:45	0205. <b>B. Isabirye.</b> Global invasive spread and risk of the phytophagous fall armyworm: Climate change implications.	0237. <b>J. A. Neethling.</b> How the lack of importance in soil economy has affected pseudoscorpion (Arachnida: Pseudoscorpiones) research	0230. <b>M. Louw.</b> Densities of <i>Arthroleptella lightfooti</i> across the Cape Peninsula: Preliminary results from acoustic spatial capture-recapture	0135. <b>T. Sikhakhane.</b> Exploring genetic approaches for Russian wheat aphid ( <i>Diuraphis noxia</i> ) resistance breeding in wheat
15:45-16:00	0082. <b>D. Visser.</b> Invasions by <i>Tuta absoluta</i> and <i>Spodoptera frugiperda</i> : What is the threat to vegetable production in South Africa?	0199. <b>M. Blanckenberg.</b> Resurrection ecology of invertebrates in temporary wetlands in the Cape Floristic region: effects of urbanisation and fire	0426. <b>H. Lutermann.</b> Variation of morphometric and demographic parameters in eastern rock sengi populations	0149. <b>T. Bapela.</b> Increasing wheat resistance to Russian wheat aphid <i>Diuraphis noxia</i> (Kurdjumov) (Hemoptera: Aphididae) biotypes
16:00-16:30	<b>BREAK - Afternoon tea in the Central Foyer</b>			





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	<b>ANNUAL RESEARCH SYMPOSIUM ON THE MANAGEMENT OF BIOLOGICAL INVASIONS IN SOUTHERN AFRICA (Continued)</b>	<b>SOUTHERN AFRICAN SOIL BIOTA IN A CHANGING CLIMATE (Continued)</b>	<b>POPULATION AND COMMUNITY ECOLOGY (Continued)</b>	<b>SUSTAINABLE EXPLOITATION AND PRODUCTION (Continued)</b>
<b>Chair:</b>		<b>Charlene Janion-Scheepers</b>	<b>Tom Bishop</b>	<b>Gudrun Dittrich-Schröder</b>
16:30-16:45	<b>SPEED TALKS</b> 0320. <b>H. du Plessis</b> 0386. <b>T. Smit</b> 0339. <b>I. Minnaar</b>	0136. <b>S. van der Merwe.</b> Soil biota as bioindicators of erosion levels and fire disturbances in afro-montane grassland areas within the Golden Gate Highlands National Park	0112. <b>R. Lerm.</b> Almost a decade of water-dependent bird monitoring along the Olifants River, Kruger NP	0168. <b>M. James.</b> Local entomopathogenic nematodes can they help control the Mediterranean fruit fly?
16:45-17:00	0283. <b>J. Queffelec.</b> Influence of reproductive biology on the invasive capacity of hymenoptera species: <i>Sirex noctilio</i> as a case study	0144. <b>J. Botham.</b> Forest patch status and soil health indices along a topographical gradient within afro-montane grasslands	0139. <b>C. Nyamukondiwa.</b> Dominance of spotted stem-borer, <i>Chilo partellus</i> Swinhoe (Lepidoptera: Crambidae) over indigenous stem-borer species in Africa's changing climates	0196. <b>C. Gevers.</b> The complex <i>Leptocybe invasa</i> gall community on <i>Eucalyptus</i>
17:00-17:15	<b>SPEED TALKS</b> 0418. <b>R. Stals</b> 0080. <b>J. H. Venter</b> 0147. <b>T. Nelufule</b> 0070. <b>C. Shivambu</b>	0284. <b>S. Louw.</b> Managing change in cropping system soils requires strategic thinking	0299. <b>K. Fitza.</b> Genetic diversity of <i>Deladenus siricidicola</i> , the biological control agent of the woodwasp <i>Sirex noctilio</i>	0207. <b>F. Bekker.</b> The area-wide spatio-temporal distribution of <i>Ceratitidis capitata</i> (Wiedemann) populations in the Western Cape, South Africa
17:15-17:30	0318. <b>R. Smith</b> 0438. <b>G. Venturi</b> 0322. <b>L. G. Madire</b> 0439. <b>J. Musedeli</b>	<b>Open discussion</b>	0209. <b>N. P. Ngubane.</b> Arthropods associated with blueberry plants ( <i>Vaccinium</i> sp.) in the Mpumalanga and Western Cape Provinces of South Africa	0213. <b>C. Love.</b> Monitoring population trends of false codling moth, carob moth and Mediterranean fruit fly on multi-crop farms in the Western Cape
17:30-18:30	<b>ZSSA AGM in the Ruby auditorium</b>			
18:30-20:30	<b>POSTER VIEWING FUNCTION in the Exhibition Hall</b>			
	<b>END DAY 2</b>			

## THURSDAY 6 JULY 2017

<b>TIME</b>	<b>DIAMOND AUDITORIUM (capacity: 450)</b>	<b>RUBY AUDITORIUM (capacity: 136)</b>	<b>EMERALD AUDITORIUM (capacity: 100)</b>	<b>AMETHYST ROOM (capacity: 140)</b>
08:30-09:00	<b>REGISTRATION in the Central Foyer</b>			
09:00-10:00	<b>PLENARY SPEAKER: PROF. BILL KARASOV</b> Overflow seating with live stream			
	<b>ANNUAL RESEARCH SYMPOSIUM ON THE MANAGEMENT OF BIOLOGICAL INVASIONS IN SOUTHERN AFRICA</b>	<b>CONSERVATION OF BIODIVERSITY AND POPULATIONS</b>	<b>NUTRIENTS AND TOXINS</b>	<b>SUSTAINABLE EXPLOITATION AND PRODUCTION</b>
<b>Chair:</b>	<b>Nic Venter</b>	<b>Katarina Medger</b>	<b>Quentin Guignard</b>	<b>Kerstin Krüger</b>
10:00-10:15	<b>BIOCONTROL</b> 0044. <b>G. Sutton.</b> Does <i>Hypogeococcus festerianus</i> successfully control the cactaceous weed <i>Cereus jamacaru</i> in South Africa?	0265. <b>P. Olivier.</b> Extinction debt and species credit in coastal forests: does restoration lead to conservation?	0081. <b>A. Hammerbacher.</b> Behavioral response of the bark beetle, <i>Ips typographus</i> , to commonly associated Ophiostomatoid fungi	0243. <b>C. Mole.</b> Exploitation or valid justification? The use of animal specimens in forensic science research



# PROGRAMME

10:15-10:30	0276. <b>J. A. Coetzee.</b> Testing the thermal limits of <i>Eccritotarsus catarinensis</i> : Acclimation or heritability?	0020. <b>L. Thompson.</b> Breeding ecology of the Hooded Vulture <i>Necrosyrtes monachus</i> in the Kruger-to-Canyons Biosphere Region, South Africa	0104. <b>K. Malod.</b> Food, sex and death: any compromises? Nutritional geometry of a specialist pest fruit fly, <i>Ceratitis cosyra</i> (Walker) (Diptera: Tephritidae)	0244. <b>B. Dlamini.</b> Entomopathogens isolated from local deciduous fruit orchards and vineyards to control of the banded fruit weevil, <i>Phlyctinus callosus</i>
10:30-10:45	<b>SPEED TALKS</b> 0060. <b>S. F. Mvandaba</b> 0379. <b>B. Cowie</b> 0030. <b>L. G. Madire</b> 0184. <b>P. Naidu</b>	0032. <b>C. Downs.</b> Impact of habitat fragmentation and habitat structure on the occupancy of forest mammals in eThekweni Municipality	0142. <b>C. Ngcamphalala.</b> Flower length is more important than width in determining foraging preferences of white-bellied sunbirds ( <i>Cinnyris talatala</i> )	0246. <b>L. Mohase.</b> South African Russian wheat aphid ( <i>Diuraphis noxia</i> ) biotypes induce differential responses in wheat varieties grown in the highlands of Lesotho
10:45-11:00	0113. <b>S. Bush.</b> Host specificity of the parasitoid <i>Psyllaephagus bliteus</i> a biological control agent of <i>Glycaspis brimblecombei</i>	0252. <b>M. Burke.</b> Microsatellite variation in a population-level study of the endangered bearded vulture <i>Gyptaeus barbatus</i>	0150. <b>E. du Rand.</b> Detoxification ability of honeybee larvae has been underestimated	0247. <b>J. Hatting.</b> Effect of an insecticide application at different frequencies on nut development in pecan trees, <i>Carya illinoensis</i> (Juglandaceae)
11:00-11:30	<b>BREAK - Morning tea in the Central Foyer</b>			
	<b>ANNUAL RESEARCH SYMPOSIUM ON THE MANAGEMENT OF BIOLOGICAL INVASIONS IN SOUTHERN AFRICA (Continued)</b>	<b>CONSERVATION OF BIODIVERSITY AND POPULATIONS (Continued)</b>	<b>COMMUNICATION</b>	<b>SUSTAINABLE EXPLOITATION AND PRODUCTION (Continued)</b>
<b>Chair:</b>	<b>Chair: Nic Venter</b>	<b>Katarina Medger</b>	<b>Quentin Guignard</b>	<b>Monica Leitner</b>
11:30-11:45	0274. <b>P. C. Muskett.</b> Post release evaluation and thermal physiology of the Pereskia stem-wilting, <i>Catorhintha schaffneri</i>	0083. <b>C. Deacon.</b> Conservation planning for one of the rarest and most threatened damselflies in the world	0222. <b>K. Govender.</b> Rodent responses to volatile compounds provides insights into the function of floral scent in mammal pollinated plants	0052. <b>L. van Emmenes.</b> <i>Hermetia illucens</i> sausages as human food
11:45-12:00	0366. <b>D. Marlin.</b> Host-preference of the beetle <i>Diorhabda carinulata</i> on invasive and indigenous <i>Tamarix</i> spp.	0094. <b>S. Hugo.</b> New methods for analysing species communities: multivariate modelling and Bayesian ordination	0238. <b>P. Pachuwah.</b> The role of floral and fruit scent compounds as mosquito attractants: developing new methods for monitoring mosquito populations	0119. <b>S. Netshifhefhe.</b> Human uses and indigenous knowledge of edible termites
12:00-12:15	<b>SPEED TALKS</b> 0400. <b>S. Mbonani</b> 0065. <b>J. Hoffmann</b> 0359. <b>T. Abels</b>	0122. <b>M. Eckert.</b> Diversity and distribution of litter and topsoil arthropods in timber plantation landscape mosaics: The biodiversity value of hydromorphic grasslands	0271. <b>V. Couldridge.</b> Factors affecting nocturnal signalling behaviour in the bladder grasshopper, <i>Bullacris unicolor</i>	0219. <b>N. Parry.</b> Evaluation of three <i>Chrysomya</i> spp. and <i>Lucilia sericata</i> (Diptera: Calliphoridae) for the bioconversion of waste products
12:15-12:30	0159. <b>J. Musedeli.</b> A promising leaf-mining flea beetle, <i>Epitrix</i> sp., for the biological control of <i>Cestrum</i> species (Solanaceae)	0125. <b>T. Mzumara-Gawa.</b> The changing face of southern Africa's Mopane woodlands: implications for conservation of threatened species and avian functional diversity	0206. <b>I. Mutavhatsindi.</b> The effect of foraging habitat on the intensity of acoustic signals in echolocation of the bats; <i>Neoromicia capensis</i> (Vespertilionidae) and <i>Tadarida aegyptiaca</i> (Molossidae)	0373. <b>D.V. Fourie.</b> Investigation of possible pyrethroid resistance development in two-spotted stinkbug, <i>Bathycoelia distincta</i> (Hemiptera: Pentatomidae) on macadamia in South Africa
12:30-12:45	0048. <b>H. Klein.</b> Attempts at biological control of small round-leaved prickly pear, <i>Opuntia engelmannii</i> , in South Africa	0162. <b>C. Cormac.</b> Determining population dynamics of the Endangered Kloof Frog, <i>Natalobatrachus bonebergi</i> , through landscape genetics and monitoring	0327. <b>M. Tjiurutue.</b> Messages from the other side: Parasites receive damage cues from their host plants	0234. <b>M. Woods.</b> The determination of nutrient requirements and development of artificial diets for the mass rearing of insects of economic importance





# PROGRAMME

12:45-13:00	<b>SPEED TALKS</b> 0389. <b>K. Musengi</b> 0399. <b>P. Mudau</b> 0173. <b>N. Magengelele</b> 0121. <b>I. Egbon</b>	0192. <b>V. Thabethe.</b> Supplementary feeding of African woolly-neck storks ( <i>Ciconia microscelis</i> ) may explain their recent expansion in KwaZulu-Natal, South Africa	0406. <b>R. La Grange.</b> The role of olfaction in host plant location of the leafhopper vector of aster yellows phytoplasma in grapevine	0257. <b>L. Torrance.</b> Management strategies to control the Cape grapevine leafminer, <i>Holocacista capensis</i> (Lepidoptera: Heliozelidae), in South Africa
13:00-13:15	0141. <b>I. Paterson.</b> Optimisation of biological control implementation strategies	0202. <b>S. Bohn.</b> Tall timber: Habitat selection of a tree-roosting bat during the reproductive season	0419. <b>A. Shuttleworth.</b> Scent chemistry of the bizarre carrion-mimic <i>Sarcophyte sanguinea</i> (Balanophoraceae)	0128. <b>G. Ditrich-Schröder.</b> The <i>Leptocybe invasa</i> genome: a window to understanding the biology of a serious invasive <i>Eucalyptus</i> pest
13:15-14:30	<b>LUNCH on the Deck</b>			
13:30-14:30	<b>Lunchtime workshop: Career skills in the Ruby auditorium</b>			
	<b>ANNUAL RESEARCH SYMPOSIUM ON THE MANAGEMENT OF BIOLOGICAL INVASIONS IN SOUTHERN AFRICA (Continued)</b>	<b>CONSERVATION OF BIODIVERSITY AND POPULATIONS (Continued)</b>	<b>OPEN SESSION 1</b>	<b>SUSTAINABLE EXPLOITATION AND PRODUCTION (Continued)</b>
<b>Chair:</b>		<b>Samantha Naidoo</b>	<b>Heike Lutermann</b>	<b>Sasha Hoffman</b>
14:30-14:45	<b>PLENARY SPEAKER: PROF. BRIAN VAN WILGEN</b>	0227. <b>A. Purdon.</b> Predicting ecological benchmarks for savannah elephant populations: providing context to counts	0291. <b>D. Finaughty.</b> Carrion feeding ecology of the Cape Grey Mongoose and its forensic implications	0261. <b>V. Steyn.</b> Mechanisms mediating false codling moth mating disruption, using point-source pheromone dispensers
14:45-15:00	<b>PLENARY (Continued)</b>	0231. <b>T. Sethusa.</b> SANBI's role in fostering sustained and informed support for animal conservation	0025. <b>K. Williams.</b> The temporal occurrence of flesh flies (Diptera, Sarcophagidae) at carrion-baited traps in Grahamstown, South Africa	0279. <b>S. Schoeman.</b> Case studies regarding the effect of tree manipulation on the commercial management of key insect pests in two subtropical tree crops
15:00-15:15	<b>PLENARY (Continued)</b>	0005. <b>A. Mariam.</b> Explaining extinction risk pattern in the African Cyprinidae: It is all about wrong origin and wrong location	0314. <b>H. Bosua.</b> Performance of honeybees ( <i>Apis mellifera scutellata</i> : Lepeletier) in laboratory conditions: effects of diet state (liquid or solid) on survival and nutrient regulation	0289. <b>J. Adendorff.</b> Antioxidant enzymes in wheat play a role in Alexin™-mediated resistance to Russian wheat aphid ( <i>Diuraphis noxia</i> )
15:15-15:30	<b>AQUATICS</b> <b>Session chair: Iain Paterson</b> <b>SPEED TALKS</b> 0286. <b>C. Makehle</b> 0132. <b>N. Petela</b> 0324. <b>S. Ngxande-Koza</b> 0090. <b>G. Martin</b>	0309. <b>J. Theron.</b> Response of spider diversity to landscape and patch heterogeneity in remnant natural patches within agricultural landscapes of the Cape Floristic Region	0297. <b>N. Lubcker.</b> Whiskers of southern elephant seals as matrix for obtaining fine-scale dietary data	0298. <b>T. Grout.</b> Undercover complications: The trend for growing citrus under net provides new opportunities for pest management research
15:30-15:45	<b>SPEED TALKS</b> 0278. <b>N. Baso</b> 0040. <b>S. N. Kenfack Voukeng</b> 0371. <b>N. Venter</b> 0303. <b>M. S. Ndlovu</b>	0280. <b>R. Guldmond.</b> The questionable impact of elephants on others	0307. <b>D. Angst.</b> New insights into the life history of the dodo from bone histology	0323. <b>R. Erasmus.</b> Development of stem borers on Bt and non-Bt maize plant crosses



# PROGRAMME

15:45-16:00	0174. <b>S. Marr.</b> Evaluating invasion risk for freshwater fishes in South Africa	0249. <b>J. Streicher.</b> Effects of differing land use on the presence and habitat use of various mongoose species	0288. <b>A. Chinsamy-Turan.</b> Palaeobiology of the giant insular extinct bird, <i>Aepyornis maximus</i>	0328. <b>W. Weeks.</b> Evaluation of four Brassicaceae types in terms of insect attraction and nematode bio-fumigant potential in the North-West Province
16:00-16:30	<b>BREAK - Afternoon tea in the Central Foyer</b>			
	<b>ANNUAL RESEARCH SYMPOSIUM ON THE MANAGEMENT OF BIOLOGICAL INVASIONS IN SOUTHERN AFRICA (Continued)</b>	<b>CONSERVATION OF BIODIVERSITY AND POPULATIONS (Continued)</b>	<b>OPEN SESSION 2</b>	<b>SUSTAINABLE EXPLOITATION AND PRODUCTION (Continued)</b>
<b>Chair:</b>	<b>Iain Paterson</b>	<b>Margaux Rat</b>	<b>Kevin Malod</b>	<b>Monica Leitner</b>
16:30-16:45	0232. <b>L. Mofu.</b> Assessing the relative impact potential of successfully introduced fishes in man-made aquatic environments	0306. <b>S. Parbhu.</b> Genotypic and phenotypic characterisation of captive lion ( <i>Panthera leo</i> ) populations in South Africa	0126. <b>M. Brigham.</b> Thermoregulation by captive and free-ranging Egyptian rousette bats ( <i>Rousettus aegyptiacus</i> ) in South Africa	0424. <b>B. Slippers.</b> Molecular and chemical ecology are important for the management of emerging pests in plantation forestry
16:45-17:00	0331. <b>L. Bloy.</b> An assessment of whether thermal tolerance is a driving factor of non-native fish invasion fronts	0267. <b>M. Freeman.</b> Matrix transformation alters species-area relationships in fragmented coastal forests	0368. <b>S. Ackermann.</b> Circadian rhythms of locomotor activity in captive Emin's mole-rats, <i>Heliophobius emini</i> (Rodentia: Bathyergidae)	0415. <b>V. Swart.</b> An ecological analysis of stink bug and lepidopteran borer complexes associated with pecan and citrus orchards
17:00-17:15	<b>SPEED TALKS</b> 0333. <b>D. Khosa</b> 0181. <b>S. Motitsoe</b>	0313. <b>A. Thompson.</b> Katydid (Orthoptera: Tettigoniidae) respond to habitat quality and not to the zones of a biosphere reserve	0310. <b>P. Roets.</b> Life history changes in the marula fruit fly, <i>Ceratitidis cosyra</i> (Walker) (Diptera: Tephritidae) in response to selection for age of reproduction	0416. <b>S. Thackeray.</b> Secondary pest outbreaks: The relationship between <i>Ectomyelois ceratoniae</i> Zeller and mealybug in Navel oranges
17:15-17:30	<b>T. Xivuri.</b> Video presentation Knockout: the spectacular control of the boxing glove cactus using a newly introduced natural enemy	0388. <b>S. Willows-Munro.</b> Conservation genetics: Vultures in crisis	0212. <b>B. Hannweg.</b> Association between an artificial and natural habitat of the Eastern Cape redbfin minnow	0422. <b>V. Tolmay.</b> Resistance reaction of selected advanced bread wheat lines and cultivars to all four known biotypes of Russian wheat aphid (Hemiptera: Aphididae) in South Africa
	<b>END DAY 3</b>			
18:30-20:30	<b>CONFERENCE DINNER AND AWARDS in the Exhibition Hall</b>			

## CONFERENCE SECRETARIAT



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