


SAAB 50th Conference Programme Outline




TUESDAY 1 July				WEDNESDAY 2 July		
	HONGONYI	PHIVU	RHINO HALL	HONGONYI	PHIVU	RHINO HALL
8h20 – 9h10			Welcome & PLENARY: Prof. Wayne Twine			PLENARY SESSION: Dr. Ilia Leitch
9h15 – 10h30	NRMC	Biotechnology	Medicinal Plants	Ecology	Biotechnology	Medicinal Plants
TEA						
11h00 – 12h30	Physiology	Evolution & Systematics	Medicinal Plants	Ecology	Biotechnology & Physiology	Medicinal Plants
LUNCH						
13h30 – 14h15			PLENARY SESSION: Prof. Itumeleng Moroenyane			PLENARY SESSION: Thaabiet Parker
14h15 – 15 h15	Pollination Biology	Invasion Biology	Medicinal Plants	Evolution & Systematics	NRMC & Biotechnology	Medicinal Plants
TEA						
15h45 – 17h00	Pollination Biology	Invasion Biology	Medicinal Plants	Ecology	—	Medicinal Plants
17h15 – 18h30	POSTER SESSION (Outside RHINO HALL)			STUDENT FUNCTION (RHINO HALL)		
THURSDAY 3 July						
	HONGONYI	PHIVU	RHINO HALL			
8h20 – 9h10			PLENARY SESSION Prof. Andrew Leitch			
9h15 – 10h30			SAAB AGM			
TEA						
11h00 – 12h30	Evolution & Systematics	—	Physiology			
LUNCH						
13h30 – 14h15		—	PLENARY SESSION: Dr. Edith Singini			
14h15 – 15h15	Ecology	—	Physiology			
TEA						
15h45 – 17h00	Ecology	—	Physiology			
19h00	GALA DINNER					


SAAB 50th Conference Programme



TUESDAY

8.20-9.10		Prof Wayne Twine A synthesis of 32 years of “people and plants” research at the Wits Rural Facility (Rhino Hall)				
Hongonyi		Speaker	Title	Phivu	Speaker	Title
9h15-9h30	NRMC	C. Geldenhuys	Observations of demographic changes in eight populations of <i>Aloidendron dichotomum</i> over a 14-year continuous survey period	BIOTECH	E. Badenhorst	Optimisation of an enzyme-linked immunosorbent assay for the biochemical characterisation of the plant cell wall & automation of data processing
9h30-9h45		T. Swemmer	Life after plantations: Long-term vegetation dynamics reveal passive restoration of montane grasslands in South Africa		T. Wallace	Controlling <i>Fusarium oxysporum</i> : Mechanistic investigation of caffeic acid against crown and root rot
9h45-10h00		J. Fisher	Best practice for mapping aboveground carbon in Afrotemperate forests		L. Trerise	Mechanistic insight into the antifungal potential of gallic acid against <i>Fusarium oxysporum</i>
10h00-10h15		M. Tshisikhawe	Non-timber forest products of Hamutsha Village in Makhado Local Municipality, Limpopo Province		L. Mula	<i>Athrobacter</i> sp. isolated from <i>Hordeum marinum</i> improves wheat tolerance to salinity by inducing ascorbate peroxidase and catalase activities
10h15-10h30		A. Engelen	Poaching exacerbates the effects of climate change on the long-term viability of an endemic South African succulent plant species		A.E.E. Ali	Physiological and proteomic responses of contrasting soybean genotypes to combined drought and salinity stress
Rhino Hall		Speaker	Title			
9h15-9h30	MED PLNT	N. Debeila	Characterization of phytochemical constituents and phytopharmacological activities of the South African freshwater medicinal plant <i>Cyperus laevigatus</i>			
9h30-9h45		C. Mooki	Exploring the antidepressant mechanisms of <i>Leonotis leonurus</i> (L.) R. Br through network pharmacology and molecular docking			
9h45-10h00		A. Mpungose	Indigenous knowledge on the uses and morphological variation among <i>Strychnos gerrardii</i> N.E.Br. morphotypes at Emkhandlwini area, KwaZulu-Natal, South Africa			
10h00-10h15		K. Dolezal	What orangutans can teach us: plants used for self-medication as a potential source of bioactive substances with antiparasitic activity			
10h15-10h30		A. Raghoonadan	Fungal intruders meet floral enforcers: The <i>Pelargonium</i> Showdown			
10h30-11h00		TEA				

TUESDAY continued

TUESDAY continued						
Hongonyi		Speaker	Title	Phivu	Speaker	Title
11h00 - 11h15	PHYS	N. Ndhlovu	Protection of photosystem II from photoinhibition in the mosses <i>Atrigum androgynum</i> and <i>Dicranella subsulata</i>	EVOL & SYST	B. du Preez	Toward a revision of the genus <i>Indigofera</i> in South Africa – six years of progress
11h15 - 11h30		N. Ntjabane	Invertase mediates <i>Puccinia triticina</i> proliferation, leading to cell wall collapse in susceptible wheat		Z. Shaik	Phylogeny inference under time-decaying migration
11h30 - 11h45		T. Khuzwayo	Short-turn effects on non-photochemical quenching of a combined light and chilling stress in Lichens		D. Berger	Molecular systematics of the endemic tree genus <i>Greyia</i> – novel DNA barcodes
11h45 - 12h00		T. Mathabe	Plant Defence Plasticity: Investigating changes in chemical defence under varying abiotic stress conditions in African savanna grass species		M. Jackson	The systematics of <i>Nemesia</i> (Scrophulariaceae)
12h00 - 12h15		EUCA	Advancements in gas exchange: The Dynamic Assimilation Technique		S. Boatwright	Systematic studies of <i>Argyrolobium</i> (Genisteae, Fabaceae)
12h15 - 12h30					K. Mengel	Lineage diversification and long-term preservation in the Greater Cape Floristic Region
Rhino Hall		Speaker	Title			
11h00-11h15	MED PLANT	A. Ndhkala	Indigenous monkey orange (<i>Strychnos spinosa</i> Lam.) fruit as an ingredient to develop a healthy fermented wine beverage			
11h15-11h30		A. Dumani	Effect of propagation techniques on the seedling establishment of medicinal cannabis (<i>Cannabis sativa</i>) found in Lusikisiki, Eastern Cape, South Africa			
11h30-11h45		B. Mpambani	Medicinal plants used for the management of various ailments and disorders in the Eastern Cape, South Africa: A review			
11h45-12h00		B-E. van Wyk	An updated review of ethnobotanical studies in South Africa			
12h00-12h15		B. Ramagoma	Exploring plant-derived alternatives for sustainable bovine mastitis management: compound isolation and nanotechnology application			
12h15-12h30		R. Basirat Olabisi	Ethnobotanical knowledge and cross-cultural utilisation of plants in Southwestern Nigeria: Insights from Ogun, Oyo, and Ondo States			
12h30-13h30		LUNCH				


TUESDAY continued

13h30-14h15		Prof. Itumeleng Moroenyane, From Holobionts to Resilient Crops through Evolutionary Systems Biology for African Agriculture (Rhino Hall)				
Hongonyi		Speaker	Title	Phivu	Speaker	Title
14h15-14h30	POLL BIO	R. Cozien	Different strokes for different folks: Floral trait differences among pollination ecotypes reflect characteristics of contrasting pollinators	INV BIOL	K.T. Moloi	Mapping the current and future distribution of invasive alien shrubs in South Africa's high-elevation grasslands
14h30-14h45		S. McCarren	Sex-specific negative frequency-dependent selection maintains equal morph ratios of mirror-image flowers		S. Maharaj	Evaluating the water use of <i>Arundo donax</i> and <i>Phragmites australis</i> from leaf to stand level
14h45-15h00		V. Roetger	Plant-pollinator networks along an altitudinal gradient in the Drakensberg Mountain Centre – observation and pollen-based networks		Z. Sithole	Cryptic invasion of <i>Rosa</i> species in the grassland biome of South Africa
15h00-15h15		L. Buthelezi	Using cut flowers in pollination experiments: an investigation of the effects on volatile emissions and pollinator attraction		G. Tarcali	Control options of chestnut blight disease caused by <i>Cryphonectria parasitica</i> in Hungary
Rhino Hall		Speaker	Title			
14h15-14h30	MED PLNT	O. Adeleye	Alpha-amylase inhibitory activity of the plant extracts obtained from <i>Portulacaria afra</i> Jack. grown under concurrent extreme temperatures and water-deficit conditions			
14h30-14h45		C. Naidoo	In vitro evaluation of antibacterial activity and associated cytotoxicity of biogenic silver nanoparticles using various extracts of <i>Tabernaemontana ventricosa</i>			
14h45-15h00		C. A. Namhla	Antifungal activity of the endophytic fungi associated with the medicinal plant <i>Nicotiana tabacum</i> from South Africa			
15h00-15h15		T. Chokoe	Phenolic metabolite profiling of <i>Moringa oleifera</i> waste extracts: influence of drying methods and solvent extraction			
15h15-15h45		TEA				


TUESDAY continued						
Hongonyi		Speaker	Title	Phivu	Speaker	Title
15h45-16h00	POLL BIO	S. Moodley	Pollinators, Floral Traits, and Timing: Unravelling plant community dynamics	INV BIOL	L. Sedibana	Random Forest machine learning and field spectroscopy to discriminate <i>Equisetum hyemale</i> L. (Snake grass) from morphologically similar species and co-existing species
16h00-16h15		G. Cron	Hue's pollinating who? Floral variation and pollinator efficacy in three grass aloes		M. Mutengwe	Reproductive and seed-germination ecology of the invasive alien woody <i>Calotropis procera</i> (Aiton) dryand, in the Vhembe Biosphere Reserve, South Africa
16h15-16h30		T. van der Niet	Myths about moths: recent advances in our understanding of hawkmoth pollination in South Africa		D. Tlaamela	Ensemble model-guided survey of <i>Populus alba</i> L. in Limpopo Province, South Africa
16h30-16h45		B. Pearson	Interfamilial floral colour preferences amongst South African butterfly families: Are butterfly pollination syndromes consistent across families?		L. Adams	Fleshy-fruited invasive alien shrub populations change over time along roadsides of South African grasslands
16h45-17h00		J. Berry	Development of a colorimetric stigma receptivity assay and the evaluation of stigma receptivity across various plants		M.S. Rabi'atu	In vivo management of fungal diseases of carrot using seed extracts of <i>Azadirachta indica</i> , <i>Ricinius comunis</i> and <i>Eucalyptus camaldulensis</i>
Rhino Hall		Speaker	Title			
15h45-16h00	MED PLANT	M. Jimoh	Nutraceutical potential of underutilized <i>Trianthema portulacastrum</i> L. (Aizoaceae)			
16h00-16h15		J. Mwinga	A survey of botanicals used by subsistence farmers to manage plant diseases in Madibeng Local Municipality, South Africa			
16h15-16h30		S. Lehasa	Investigating the in-vitro anti-inflammatory and anti-cancer activity on the tuber of <i>Dioscorea sylvatica</i>			
16h30-16h45		E. le Roux	Roots with Riches: Unveiling the chemical complexity of South African <i>Withania somnifera</i>			
16h45-17h00		T. Mpolokeng	Ethnoveterinary practices of medicinal plants used for livestock management in selected district Municipality of North-West Province, South Africa			
POSTER SESSION 17h15 – 18h30						

POSTER SESSION 17h15 – 18h30


WEDNESDAY

8.20-9.10		Dr. Ilia Leitch, Plant genome size diversity and how this impacts evolution, distribution, and survival (Rhino Hall)				
Hongonyi		Speaker	Title	Phivu	Speaker	Title
9h15-9h30	ECOL	M. Mbazo	Quantifying the effects of multiple disturbances on woody plant cover in a Marula-Knobthorn savanna	BIOTECH	B. Mabotja	Improving vitro propagation of <i>Thymus vulgaris</i> : A step towards sustainable production
9h30-9h45		N. Ndamane	Ecological impact of <i>Leucosidea sericea</i> encroachment in high-altitude grassland of the Eastern Cape, South Africa		R. Mhari	Improvement of sorghum tolerance to drought using rhizospheric bacteria
9h45-10h00		D. Izaaks	Geographic distribution and environmental correlates of ploidy in the Cape <i>Oxalis hirta</i> L. (Oxalidaceae) species complex		S. Mpai	Evaluating the impact of deficit irrigation on bioactive compounds, UPLC-MS metabolites and antioxidant activities of <i>Artimesia afra</i> using a chemometric tool of analysis
10h00-10h15		A. Theron	Do nutrient poor soils select against large genome sizes?		M. Voko	Mitigating nutrient stress in <i>Sutherlandia frutescens</i> (L.) R.Br. using cytokinin oxidase/dehydrogenase inhibitors
10h15-10h30		H. Niemann	Kindling Polyploidy: Experimental evidence that fire compounds induce diploid gametes in a geophyte		W. Mnafgui	Mitigation of nutrient stress in <i>Hordeum marinum</i> via intercropping with alfalfa: insights from physiological and metabolomic analyses
Rhino Hall		Speaker	Title			
9h15-9h30	MED PLANT	R. Oyerinde	Preliminary phytochemical screening and antioxidant potential of <i>Bulbine inflata</i> (Asphodelaceae)			
9h30-9h45		R. Rattray	Aromatic plants of the Cape fynbos: a neglected resource in essential oil research			
9h45-10h00		S. Sabiu	An appraisal of the South African antibacterial plants and their computational bioprospection for putative leads against <i>Staphylococcus aureus</i> penicillin-binding protein 2a and beta-lactamase			
10h00-10h15		S. Shaik	Conserving South Africa’s iconic and critically endangered African wild ginger, <i>Siphonochilus aethiopicus</i>			
10h15-10h30		K.N. Shai	Phytochemical and antifungal effect of botanicals used traditionally for managing fungal pathogens in Mpumalanga Province, South Africa			
10h30-11h00		TEA				

Wednesday continued

Hongonyi		Speaker	Title	Phivu	Speaker	Title
11h00-11h15	ECOL	F. Siebert	Restoring old-growth grasslands with geophytes seems possible but remains species-specific	BIOTECH & PHYS	T. Masetlana	Soil legacy drives drought resilience in <i>Lessertia frutescens</i> and <i>Glycine max</i> : metabolomic and functional insights from fynbos microbiomes
11h15-11h30		A. Tiawoun	Over half of the phylogenetic diversity accumulated on the African plant tree of life may be eroded under current biodiversity crisis		M. Hess	Decoding the morpho-physio-biochemical response mechanisms of <i>Phaseolus vulgaris</i> L. to waterlogging and <i>Fusarium oxysporum</i> infection
11h30-11h45		A. le Roux	Invertebrate assemblages and vegetation dynamics in high elevation wetlands of the Eastern Escarpment, South Africa		T. Ajewole	Study on the expression of drought tolerant genes in water-stressed <i>Basella alba</i> and <i>Basella rubra</i>
11h45-12h00		V.C. Clarke	From marshes to mines: Assessing the distribution, germination and establishment of <i>Crinum bulbispermum</i> for mine restoration		S. Nkosi	Effects of seaweed <i>Ecklonia maxima</i> (Osbeck) Papenfuss and <i>Ascophyllum nodosum</i> (L.) Le Jolis-based biostimulants on maize seed germination and seedling growth under salinity stress
12h00-12h15		E. Slooten	Subtropical grassland root-to-shoot ratios and carbon estimates: why global averages fall short		A. Magadelela	Mitigating soil sodicity in irrigated sugarcane plantations with <i>Canavalia rosea</i> : a pot experiment
12h15-12h30		D. Veldkornet	Environmental heterogeneity as a driver of species and phylogenetic diversity in coastal salt marshes		EUCA	Photosynthetic measurements: Common pitfalls and how to avoid them
Rhino Hall		Speaker	Title			
11h00-11h15	MED PLANT	M. Mabuza	In vitro antiplasmodial, antigonococcal, and cytotoxicity activity of South African <i>Ziziphus</i> Mill. (Rhamnaceae) species			
11h15-11h30		M. Chakale	Quantitative ethnobotanical survey of medicinal plants used to manage andrological conditions in the North-West Province, South Africa			
11h30-11h45		P. Mohlake	Traditional medicinal plants used in livestock health management in Namahadi district, Free State, South Africa			
11h45-12h00		G. Mokganya	Ethnobotanical practices of medicinal plant use for skin issues in Limpopo's rural village			
12h00-12h15		T. Powell	Metabolomics-guided screening of chosen southern African plants for antifungal candidates with a specific focus on the FBA-II covalent inhibitor			
12h15-12h30		N. Masondo	Livestock husbandry in the Batswana communities: Evidence-based research on medicinal plants used in livestock practices			
12h30-13h30		LUNCH				

Wednesday continued

Wednesday continued						
13h30-14h15		Thaabiet Parker, How do we build evolutionarily realistic but usable taxonomies? Asteraceae as a case study (Rhino Hall)				
Hongonyi		Speaker	Title	Phivu	Speaker	Title
14h15-14h30	EVOL & SYST	T. van der Niet	The evolution of the <i>Satyrium longicauda</i> species complex: combining field observations and phylogenetic inference to study pollinator driven diversification	NRM & BIOTECH	K. Yessoufou	Whilst the gymnosperm tree of life may survive the ongoing biodiversity crisis, the angiosperm tree of life may not
14h30-14h45		R. F. de Almeida	Historical biogeography of <i>Acridocarpus</i> (Malpighiaceae) evidence the Miocene origins of Malagasy savannas		A. Ndlovu	Mitigating microbial dysbiosis under environmental stress: engineering plant-microbe interactions for sustainable remediation
14h45-15h00		K. Sadiki	A first DNA barcoding attempt on the African cycad pollinator Erotylidae reveals more than a single species pollinates the cycad genus <i>Encephalartos</i> in South Africa		M.J. Koetle	Optimizing <i>in vitro</i> propagation and agronomic performance of three ARC hemp (<i>Cannabis sativa</i>) lines for enhanced yield and cannabinoid production
15h00-15h15		S.E. Mnxati	Historical biogeography of <i>Dianthus</i> (Caryophyllaceae) reveals several colonization events to Africa from a European ancestor		A. Klein	Nanoparticle-Based Strategies for Controlling Alternaria alternata: A Step Towards Sustainable Crop Protection
Rhino Hall		Speaker	Title			
14h15-14h30	MED PLNT	S. Modibedi	Investigating the use of <i>Hermannia geniculata</i> leaves for the presence of anticancer induced inflammation			
14h30-14h45		N.T. Nemaandila	An investigation of ethnobotanical utilization of Indigenous plants of Tshivhilidulu village in Limpopo Province, South Africa			
14h45-15h00		S. Ndwandwe	Anti-inflammatory, anti-neuraminidase and cytotoxicity evaluation of selected medicinal plants traditionally used for the treatment of respiratory viral infections			
15h00-15h15		K.I. Nko	Establishing the use-pattern of wild edible plants among the Batswana in Ngaka Modiri Molema District, South Africa			
15h15-15h45		TEA				

Wednesday continued						
Hongonyi		Speaker	Title	Rhino Hall	Speaker	Title
15h45-16h00	ECOL	S. Kremer-Köhne	Reduced reproductive output in small and isolated populations of the bird-pollinated <i>Aloe lettyae</i> , an endangered South African grassland endemic	MED PLANT	N. Nkosi	Phytochemical variability in <i>Laggera alata</i> and <i>Laggera crispata</i> forms from southern Africa
16h00-16h15		Y. Steyn	Fire frequency effects on germinability of grasses and forbs in a semi-arid savanna		N. Shikwambana	Antimicrobial activity and anti-inflammatory activity of medicinal plants used in ethnoveterinary remedies for gastrointestinal illnesses
16h15-16h30		T. S. Maponga	Comparisons of mistletoe host species and densities between communal rangelands and protected areas in a semi-arid African savanna		S. Mswane	Assessing the antifungal activity of selected medicinal plants against economically important plant pathogens
16h30-16h45		L. Kruger	The future of savanna trees: Understanding the influence of elephants, fire and land use change on large tree demography		S. Chauke	In vitro antibacterial and antioxidant activity of the leaves of Indigenous fruit species from Mpumalanga province, South Africa
16h45-17h00		T. Ramalevha	Bud bank dynamics under fire-herbivory disturbances drive African savanna resilience		T. Buthelezi	Ethnobotanical survey of medicinal plants used for managing mental health conditions in Mahikeng

STUDENT FUNCTION @ 17h15

THURSDAY

8.30-9.10		Prof Andrew Leitch, Ecological processes acting on grassland plant species dependant on their genome sizes (Rhino Hall)				
9.15-10.30		SAAB AGM				
10.30-11.00		TEA				
Hongonyi		Speaker	Title	Rhino Hall	Speaker	Title
11h00-11h15	EVOL & SYST	L. Joubert	New additions to the <i>Nemesia</i> lineage from the Succulent Karoo	PHYS	T. Masetlana	Soil legacy drives drought resilience in <i>Lessertia frutescens</i> and <i>Glycine max</i> : Metabolomic and functional insights from Fynbos microbiomes
11h15-11h30		L. Mbongwe	Genetic diversity and population structure of <i>Strychnos madagascariensis</i> : Insights for conservation and sustainable utilization		T. Mokgalabone	Comprehensive assessment of variation in physicochemical properties and bioactive compounds among <i>Strychnos spinosa</i> Lam. fruit accessions
11h30-11h45		M. Moir	An exploration of the abiotic and biotic drivers associated with geographic structuring of floral colour variation in <i>Pauridia capensis</i>		M. Moloi	Differential responses of edamame cultivars to high temperature: insights into photosynthesis and chloroplast ultrastructure
11h45-12h00		N. Moilola	A phylogenomic study of southern African members of <i>Silene</i> Section <i>Elisanthe</i> (Caryophyllaceae)		R.C. Magabe	Effects of the meter square ultra-high density planting technology on yield and phyto-nutritional composition of <i>Moringa oleifera</i>
12h00-12h15		M.O.O. Pellegrini	Commelinales Working Group: turning a new taxonomic leaf		M. Sekhurwane	The influence of selenium soil application on osmolytes and their relationship with photosynthesis efficiency in edamame under severe water stress
12h15-12h30		M.C Moshobane	SAJB’s contribution to botanical research in southern Africa: Bibliometric analysis			
12h30-13h30		LUNCH				
13h30-14h15		Dr Edith Singini, Is CO2-enhanced photosynthesis the key to encroachment success? (Rhino Hall)				
Hongonyi		Speaker	Title	Rhino Hall	Speaker	Title
14h15-14h30	ECOL	J. Marcelo-Silva	Potentially toxic metal(loid)s transfer in a tri-trophic ultramafic system	PHYS	L. Maseko	Can insights from plant histology reveal a role of nutrient supplementation in promoting plant chloride tolerance?
14h30-14h45		K. Murray	Using radiocarbon dating to assess maximum longevity in the arborescent monocot, <i>Aloidendron dichotomum</i> (Masson) Klopper & Gideon F.Sm.		C.W.E.C. Boshoff	The growth potential of Kenaf (<i>Hibiscus cannabinus</i>) on coal tailings in South Africa
14h45-15h00		N. Mngomezulu	The comprehensive assessment of plant species richness and habitat distribution in Cape Inland Salt Pans		B. Tóth	Assessing crop responses to stressors in a changing climate
15h00-15h15		M. Ramabu	Effects of mechanical control on <i>Pteridium aquilinum</i> and restoration of Woodbush Granite Grassland		C. Rheeder	Phytochemical analysis of South African <i>Crocasmia</i> species for Type 2 Diabetes Treatment
15h15-15h45		TEA				

Thursday continued

Thursday continued						
Hongonyi		Speaker	Title	Rhino Hall	Speaker	Title
15h45-16h00	ECOL	N. Marneweck	Assessing the effects of the invasive house mouse on the flora of Marion Island	PHYS	E. Ramsay	Comparative photosynthesis and gas exchange traits of seedlings of selected <i>Eucalyptus</i> species: A South African Perspective
16h00-16h15		T. Kgomo	Temporal and spatial distribution of vegetation fires in the Robertson Granite Renosterveld from 2000 to 2024		J. Botes	Determining the molecular basis of the rare white-flowering <i>Greyia sutherlandii</i> phenotype
16h15-16h30		M. Mamathaba	Early life stages matter to the rescue of a long-lived plant from the consequences of lethal root harvest in South Africa		B.M. Khoza	Investigating the effect of cysteine derivatives on the physio-biochemical responses of edamame under drought stress
16h30-16h45		O.A. Idris	Spatial patterns and drivers of plant diversity in the Witsieshoek Valley, Drakensberg Mountains, South Africa		M.S. Mafa	Inhibition of key carbohydrate metabolism enzymes improves wheat acclimatisation to osmotic stress
16h45-17h00						
19h00 GALA DINNER						



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