

Scientific Programme

Papers will be presented in five different lecture halls. All plenary lectures will be presented in the NAS (Geography) Auditorium. All other lectures and poster lightning talks will take place in the L-lecture venues (L1, L2, L3 and L5).

MONDAY 6 JANUARY 2020	
09:00	Grass Identification Course (Lab 1023, NAS (Old Science) Building)

TUESDAY 7 JANUARY 2020	
09:00	Alien Grass Working Group AGM (Afromontane Research Unit seminar room)
12:30	SAAB Council Meeting (Geography Committee Room, New Science Building)
13:30	Workshop: R for biogeography and spatial conservation (Staff training lab, Library)
15:00	Registration (E0014)
17:00	Meet and Greet (E0014)

WEDNESDAY 8 JANUARY 2020				
07:30	Registration (E0014)			
08:00	Welcoming (NAS Auditorium)			
08:30	Plenary Lecture: Prof Annah Moteetee My twenty years of plant taxonomic studies of southern African plants: examples from the family Fabaceae Chairperson: James Stephen Boatwright			
09:30	TEA			
	Lecture Hall 1 Plant Physiology Chairperson: Richard Beckett	Lecture Hall 2 Systematics Chairperson: Kenneth Carl Oberlander	Lecture Hall 3 Plant Ecology Chairperson: Peter Le Roux	Lecture Hall 5 Ethnobotany Chairperson: Gary Stafford
10:00	<u>R.P. Beckett</u> , F.V. Minibayeva: Safety valves for photosynthesis in lichens	R.F. Powell, L.P. Suarez, A.R. Magee, <u>J.S. Boatwright</u> , M.V. Kapralov, A.J. Young: Genome size variation and endopolyploidy in the Aizoaceae	<u>R.J. Scholes</u> , G. Feig: Advanced research infrastructure for South African botanists	<u>G.I. Stafford</u> , C.J. du Plessis, L.E. Aston Philander, N.P. Makunga: Is what you use a result of who you are and where you come from, or is it determined by

				where you live? A comparative quantitative ethnobotanical study of the fynbos and succulent karoo
10:20	I.J. Lexin, S.S. Gorina, L.V. Viktorova, R.P. Beckett, <u>F.V. Minibayeva</u> : Lichen peroxidases: unusual structural properties and gene activity	<u>K. C. Oberlander</u> , V. Zeisek, R. Schmickl: The paradox of present and past ploidy; why are there still diploids?	<u>T.C. Twala</u> , E.T.F. Witkowski, M.A. Whitecross: Response of <i>Terminalia sericea</i> seedlings to shade and herbivory stress	<u>A.O. Aremu</u> , L.J. McGaw, I.M. Famuyide, E.T. Khunoana, B.I. Moichwanetse: Ethno-veterinary research in South Africa: A reflection of the journey in the last decade
10:40	<u>M. Awlia</u> , C. Madden, A. Radermacher, H.W.M. Hilhorst, J. Farrant: <i>In silico</i> and functional analyses of genes and phenotypic traits associated with desiccation and salinity tolerance in the monocot resurrection plants <i>Xerophyta schlechteri</i> and <i>Eragrostis nindensis</i>	<u>C. Barnardt</u> , A.R. Magee, J.S. Boatwright: Studies in <i>Drosanthemum</i> (Aizoaceae, Ruschioideae, Drosanthemeae): systematics of subgenus <i>Vespertina</i>	<u>J. Rodriguez</u> , B.H. Daru: Mismatches and congruencies in plant sampling biases between observations and vouchered specimens	<u>K.M. Selogatwe</u> , J.A. Asong, M. Struwig, R.V. Ndou, A.O. Aremu: Woody plants with ethno-veterinary applications in rural communities of Mahikeng Local Municipality of the North West province
11:00	<u>S.B.M. Chiphango</u> , G.M. Makonya, J.B.O. Ogola: Differential tolerance to heat and drought stresses in chickpea (<i>Cicer arietinum</i> L.) genotypes	<u>A.A. Ajao</u> , A.N. Moteetee: Systematics of southern Africa species of <i>Rhynchosia</i> (Cajaninae, Phaseoleae, Fabaceae)	<u>S. Tokozwayo</u> , K. Mopipi, E.C. Timpong-Jones: Influence of <i>Vachellia karroo</i> on forage production and grass species composition in communal rangeland of the Eastern Cape, South Africa	<u>J.A. Asong</u> , O.A. Aremu, W. Otang Mbeng: Foliar micromorphology: a digital imagery approach to authenticate medicinal plants
11:20	<i>H2 Tshimangadzo Diana Bulwana</i> <i>H3 Soane Ludick</i> <i>H8 Sbongiseni Ndlovu</i>	<u>M.P. Mtileni</u> , N. Venter, K.L. Glennon: Does polyploidy increase trichome density and water use efficiency in the Drakensberg plant varieties <i>Rhodohypoxis</i>	<u>B.H. Daru</u> : GreenMaps: a Tool for Addressing the Wallacean Shortfall in the Global Distribution of Plants	<u>N.C. Mncwango</u> , S. Mavengahama, N.R. Ntuli, C.M. Van Jaarsveld: Participatory variety selection of <i>Amaranthus</i> genotypes in the KwaMbonambi area

		<i>baurii</i> var. <i>baurii</i> and <i>Rhodohypoxis baurii</i> var. <i>platypetala</i> ?		
11:40		S1 Talia Krishanlal S2 Precious Tshireletso Le Roux S3 Tshililo Makhado S4 Maxine Cornelle Manickum	P1 Franco De Ridder P2 Melanie Erasmus P3 Bongekile S. Nontokoza Kuhlase P4 Murendeni Kwindi	E2 Temitayo Adeyeoluwa E13 Oyinlola Olaokun E3 Sutapa Adhikari E4 Rebecca Temitope Akande
12:00	LUNCH			
	Lecture Hall 1 Pollination Biology Chairperson: Steven D. Johnson	Lecture Hall 2 Alien Grass Working Group Chairperson: Kim Canavan	Lecture Hall 3 Plant Biochemistry Chairperson: Nicholas Le Maitre	Lecture Hall 5 Ethnobotany Chairperson: Pheelo Mojau
13:00	<u>J. Anderson</u> , T. van der Niet, S.D. Johnson, S. Steenhuisen, R.J. Cozien: How to train your dragon: Flower colour and nectar scent lure lizard pollinators to the Drakensberg's Hidden flower	<u>K. Canavan</u> , Iain D. Paterson, Carla Lambertini, Martin P. Hill: Expansive reed populations in South Africa – alien invasion or disturbed wetlands?	<u>N.C. Le Maitre</u> , M.D. Pirie, D.U. Bellstedt: Floral colour, anthocyanin synthesis gene expression and control in Cape <i>Erica</i> species	<u>J. Bentley</u> , J. M. Moore, J. M. Farrant: Metabolomic profiling of a “resurrection plant” from across a rainfall gradient reveals insight into the environmental regulation and plasticity of metabolites
13:20	<u>C. Diller</u> , M. Castañeda-Zárata, S.D. Johnson: New method for identifying effective pollinators	<u>A. Mapaura</u> , K. Canavan, D.M. Richardson, V.R. Clark, S. Steenhuisen: <i>Nassella</i> tussock invasion in South Africa: an overview	<u>F.S. Baloch</u> , M.A. Nadeem: Linkage disequilibrium of antioxidant activity in Turkish common ban germplasm	<u>A. Duvenhage</u> , M.S. Rafudeen, J.M. Farrant: The stress of desiccation results in the accumulation of anxiolytics in the roots of <i>Eragrostis nindensis</i>
13:40	<u>H.C. Butler</u> , S.D. Johnson: Butterfly wing pollination in <i>Scadoxus multiflorus</i>	<u>MC Moshobane</u> , L Middleton, JO Olowoyo: Risk analysis of alien grasses documented in Woodbush Granite Grassland, Limpopo province	<u>N.N. Nkosi</u> , T.H.C. Mostert, S. Dzikiti and N.R. Ntuli: Phenology and yield studies of <i>Strychnos spinosa</i> in northern KwaZulu-Natal, South Africa	<u>M.M. Mashigo</u> , S. Dukhan, I. Risenga: Essential oil composition of <i>Lavandula angustifolia</i> under combined high temperature and drought stress

14:00	<u>E. van Ginkel</u> , P.C. le Roux: Establishing the role of entomophily within the pollination networks of sub-Antarctic angiosperms	<u>G.F. Sutton</u> , K. Canavan, V. Visser, I.D Paterson: Invasive grasses as suitable biological control targets: a South African perspective	<u>O. Novák</u> , D. Tarkowská, J. Šimura, A. Pěňčík, V. Turečková, J. Oklešťková, J. Šíroká, M. Karády, K. Doležal, M. Strnad: Plant Hormonomics: Phytohormone metabolite profiling	<u>E. J. Singini</u> , Y. Nuapia, L. Chimuka, I.M. Risenga: Effects of high temperatures on the leaf histology and phytochemicals in <i>Lippia javanica</i> (Verbenaceae)
14:20	<u>J.C.F. Cardoso</u> , F.J.T. Silva, P.E. Oliveira, A.P.S. Caetano: Mixed mating system in the Melastomataceae	<u>M.S. Vorontsova</u> : How can we build knowledge of grass invasions in Madagascar?	<u>N.T. Sithole</u> , S. Gupta, M.G. Kulkarni, J.F. Finnie, J. Van Staden: Influence of ground and drenching applications of medicinal plants biomass on plant physiology and morphology of nematode-infested <i>Pelargonium sidoides</i>	<u>T. M Mulaudzi</u> , N.A Masevhe, A, Samie, N. E., Madala: Rapid metabolic fingerprinting of <i>Colophospermum mopane</i> using Ultra performance Liquid Chromatography Hyphenated to Quadrupole-Time-of Flight Mass Spectrometry (UPLC-qTOF-MS) and antimicrobial activity of its fractions
14:40	<i>P12 Verona Govender</i> <i>P16 Ruth Cozien</i>	S. Canavan, <u>D.M. Richardson</u> , J.J. Le Roux, S.A. Kelchner, J.R. Wilson: The status of alien bamboos in South Africa	<i>B9 Vincent N. Matsebula</i> <i>B10 Makoena Joyce Moloji</i> <i>B7 Siphon Chwene Sepale</i> <i>B8 Matthew Harris</i>	<u>D. Mbendana</u> , K.S. Mamabolo, P. Sithole, A.R. Ndhlala, Q. Kritzinger, M. Truter: Mycoflora and mycotoxins associated with five medicinal plants sold at KwaMai-Mai and Marabastad <i>muthi</i> markets in Gauteng, South Africa
15:00	TEA			
	Lecture Hall 1 Ethnobotany Posters Chairperson: Joanne Bentley	Lecture Hall 2 Systematics Chairperson: Glynis V Cron	Lecture Hall 3 Plant Biochemistry Chairperson: Matome Makgopa	Lecture Hall 5 Ethnobotany Chairperson: Fatai Oladunni Balogun
15:30	<i>E5 Zimasa Busisiwe Dubeni</i> <i>E6 Adivhaho Goliada</i> <i>E12 Mulisa Nkuna</i>	<u>G.V. Cron</u> , W.N. Hattingh, M. Kuhlmann, T. van der Niet:	<u>S. Masukume</u> , Berner JM, van Heerden PDR, Singels A:	<u>S.M. Nkadimeng</u> , C.L.M. Steinmann, J.N. Eloff:

	<i>E15 Oyinlola Olaokun</i>	Phylogeny and biogeography of <i>Diascia</i> (Hemimeridae, Scrophulariaceae s.s.)	Elevated CO ₂ and water deficit interaction effects on sugarcane water use and yield: an experimental and crop modelling study	Safety of <i>Panaeolus cyanescens</i> mushroom extracts on angiotensin II-induced hypertrophy and the indigenous records of the mushroom usage by South African natives
15:50	<i>E16 Olasunkanmi Stephen Olawuwo</i> <i>E17 Adeola Abiola Oso</i> <i>E1 Phatlane William Mokwala</i> <i>E18 Tuwani Tryphina Ramavhale</i>	<u>M. Castañeda-Zárata</u> , S. D Johnson, T. van der Niet: Not only flowers, but leaves reveal hidden taxa within <i>Satyrium longicauda</i> (Orchidaceae)	<u>E.O. Mathibela</u> , M.E. Makgopa: The role of Bowman-Birk Inhibitors in drought tolerance of transgenic <i>Arabidopsis thaliana</i>	<u>O. Bodede</u> , G. Prinsloo, H. Chenia, R. Moodley, M. Nlooto, E. Ojewole: Quorum sensing inhibitory potential of biologically active compounds from <i>Bulbine natalensis</i> (Baker)
16:10		<u>K. L. Glennon</u> , S. L. Payne: Does evolution in chromosome number correspond to reproductive trait shifts in Hypoxidaceae?	<u>L.O. Omoarelojie</u> , M.G. Kulkarni, J.F. Finnie, M. Strnad, J. Van Staden: Strigolactone (<i>rac</i> -GR24) confers photosystem II resilience under heat and chilling stress	<u>P. Jambwa</u> , G. Matope, L.J. McGaw: Antibacterial activity of selected plant species with potential for development of poultry phytogenic feed additives
16:30		<u>S.O. Azeez</u> , J.O. Faluyi, M. Oziegbe: Cytological, foliar-epidermal and pollen grain studies in relation to ploidy level in four Nigerian species of <i>Physalis</i> L.	<u>AL Radermacher</u> , SDF Du Toit, B. Williams, S.G. Mundree, JM Farrant: Desiccation-driven senescence in the resurrection plant <i>Xerophyta schlechteri</i>	<u>F.O. Balogun</u> , A.O.T. Ashafa: Green synthesized zinc oxide nanoparticles from aqueous root extract of <i>Dicoma anomala</i> (Sond.) subsp. <i>anomala</i> mitigates against free radicals and diabetes-linked enzymes
17:00	Poster Viewing Function (E0014)			

THURSDAY 9 JANUARY 2020

07:30	Registration (E0014)
08:00	Announcements (NAS Auditorium)
08:10	Plenary Lecture: Mr Ryan Rattray

	The quality control conundrum: Utilising multi-disciplinary techniques to authenticate and regulate herbal products in South Africa Chairperson: Sandy-Lynn Steenhuisen			
09:10	CONFERENCE PHOTO			
09:30	TEA			
	Lecture Hall 1 Pollination Ecology Chairperson: Sandy-Lynn Steenhuisen	Lecture Hall 2 Systematics Chairperson: Anthony Magee	Lecture Hall 3 Plant Ecology Chairperson: Peter Chatanga	Lecture Hall 5 Ethnobotany Chairperson: Annah Moteetee
10:00	<u>K.R. van den Bosch</u> , D. Thompson, E.T.F. Witkowski, G.V. Cron: Reproductive ecology of the Pepperbark tree (<i>Warburgia salutaris</i>) in the Kruger National Park, South Africa	<u>S.L. Magoswana</u> , J.S. Boatwright, A.R. Magee, N.P. Barker, J.C. Manning: Phylogenetic relationships in Othonninae (Asteraceae: Senecioneae)	<u>C.A. Gouws</u> , P.C. le Roux: Do cushion plants act as “nurse plants” due to wind-driven seed trapping?	<u>N.G. Mochologi</u> , L.V. Komoreng, T. Pitso: Medicinal potentials of <i>Scabiosa columbaria</i> in the development of new medicinal drugs
10:20	<u>R. Cozien</u> , L. Harder, S. Johnson: “Best of both worlds” reproduction in the Drakensberg River Lily: autofertility alleviates pollinator failure in an unpredictable pollination environment	<u>R. Isaacs</u> , J.S. Boatwright, A.R. Magee: Systematics of the <i>Ursinia anthemoides</i> complex (Asteraceae, Anthemideae)	<u>N. Mazibuko</u> , P.C. Le Roux: Does the wind dispersal potential of seeds constrain species range expansion on sub-Antarctic Marion Island?	<u>M.R. Mohlakoana</u> , Moteetee, A: Qualitative and quantitative analysis of saponins from selected southern African soap plants and their antimicrobial activity against skin pathogens
10:40	<u>E.L. Newman</u> , S. E. Van Niekerk, S.D. Johnson, C. Peter: Three-dimensional stamen mimics enhance the morphological fit between flowers and pollinators	<u>A. Jakoet</u> , J.S. Boatwright, L. Mucina, D.U. Bellstedt, A.R. Magee: Are the bachelor days over for the button daisies?: Re-circumscription of <i>Cotula</i> , <i>Leptinella</i> and <i>Soliva</i> (Cotulineae, Anthemideae, Asteraceae)	<u>S.L. Jamison</u> , W.D. Kissling, M. Greve: Comparing the drivers of fruiting phenology of widespread South African trees	<u>L.D. Moloi</u> , L.A. Adeniran, F.O. Balogun, A.O.T. Ashafa: <i>In vitro</i> studies on the anti-oxidative and antidiabetic potentials of <i>Elephantorrhiza elephantina</i> (Burch.) Skeels root extracts

11:00	<u>T. van der Niet</u> , R.J. Cozien, D. Funamoto, S.D. Johnson, A. Shuttleworth ¹ , G.L. Theron: Specialized insect pollination systems in South African <i>Erica</i> species: the role of floral scent and morphology	<u>L. K. Madika</u> , A. Moteetee: Systematics, chemotaxonomy and biological activity of southern African species of the genus <i>Cynoglossum</i> L. (Boraginaceae)	<u>T.A. Jele</u> , N.R. Mkhize, Z. Tsvuura: Effect of soil nutrients on the growth and defensive characteristics of <i>Vachellia tortilis</i> (Fabaceae) seedlings from geographically isolated populations in KwaZulu-Natal	<u>A.A. Ogbe</u> , S. Gupta, J.F. Finnie, J. Van Staden: Hypoglycaemic and free radicals scavenging potentials of <i>Ruta graveolens</i> and <i>Salvia repens</i>
11:20	<u>S.D. Johnson</u> , M. G. Balducci & T. van der Niet: Beautiful contrivances: floral adaptations for hawkmoth pollination in South African species of <i>Habenaria</i> and <i>Bonatea</i> (Orchidaceae)	<u>TC. Makhoba</u> , AR. Magee, JS. Boatwright, JC Manning: Phylogenetics of <i>Struthiola</i> (Thymelaeaceae) and a taxonomic revision of the 12-scaled species	<u>T.S. Maponga</u> , E.T.F. Witkowski, H.G.T. Ndagurwa: Comparing the effects of different levels of mistletoe infection on <i>Vachellia karroo</i> trees on understory plant productivity and soil conditions	<u>M. Ramulondi</u> , S.F van Vuuren, H. De Wet: <i>In vitro</i> herb-drug interaction and hepatotoxicity potential of some medicinal plants used for the treatment of hypertension in northern KwaZulu-Natal, South Africa
11:40	<i>P14 Saness Moodley</i>	<i>S5 Kagiso Sharlene Mashego</i> <i>S6 Gudani Netshifamadi</i> <i>S7 Ofentse Tabane</i>	<i>P5 Evalt Malesela Lebeso</i> <i>P6 Londiwe Mokoena</i> <i>P7 Jean Ntuli</i> <i>P8 Refentse Moagi Phetla</i> <i>P15 Barnabas H. Daru</i>	<i>E7 Marubini Cecilia Makhado</i> <i>E8 Bosele Moichwanetse</i> <i>E10 Siza Mthi</i> <i>E11 Lufuno Nenungwi</i>
12:00	LUNCH			
13:00	Plenary Lecture (NAS Auditorium): Prof Felipe W. Amorim Hawkmoth pollination in Brazil: from natural history to community ecology Chairperson: Steven D. Johnson			
14:00	TEA			
	Lecture Hall 1 Plant Physiology/Biotechnology Chairperson: Samson Chimphango	Lecture Hall 2 Systematics Chairperson: Kelsey Glennon	Lecture Hall 3 Plant Ecology Chairperson: Jeremy Midgley	Lecture Hall 5 Ethnobotany Chairperson: Ida Risenga
14:30	<u>M.Z. Khumalo</u> , R.J. Scholes: Wood respiration in savannas	<u>Z. Shaik</u> , G.A. Verboom, N.G. Bergh, B. Oxelman:	<u>M.J. Raath-Krüger</u> , C. Schöb, <u>P.C. le Roux</u> :	<u>M.F. Ratsoma</u> , J.F. Finnie, J. Van Staden:

		Next-generation sequence data and Bayesian delimitation resolve species limits and relationships with high confidence in the widespread Cape species complex <i>Seriphium plumosum</i> L. (Gnaphalieae: Asteraceae)	Inter-specific facilitation mediates the outcome of intra-specific plant-plant interactions	An evaluation of selected medicinal plants used in the treatment of diabetes and related complications
14:50	<u>N. Ngoroyemoto</u> , M.G. Kulkarni, S. Gupta, J.F. Finnie, J. Van Staden: The effects of microbes and biostimulants on the growth and biochemical composition of leafy vegetable <i>Amaranthus hybridus</i>	<u>L. Masters</u> , N.P. Barker, M. Coetzee, K. Oberlander: Phylogenetics of <i>Tylosema</i> in southern Africa	<u>V.R. Clark</u> : The Afromontane Research Unit: A Continental Leader in African Mountain Research	<u>P. Moruri</u> , A.O.T. Ashafa, D. N'da: Comparative anti-leishmanial activity of the leaves, stem bark and root extracts of <i>Morella serrata</i> (Lam) Killick, Myricaceae
15:10	<i>H5 Sellwane Jeanette Moloji</i> <i>H6 Patience Netshituni</i> <i>H7 Thilivhali Baby Ramala</i> <i>H1 Thando Caroline Twala</i>	<u>A. Netshilaphala</u> , N. Swelankomo: Species boundaries between <i>Cephalaria pungens</i> Szabó, <i>C. humilis</i> (Thunb.) Roem. & Schult. and <i>C. oblongifolia</i> (Kuntze) Szabó in southern Africa	<u>A.C. Mashau</u> , S. Archibald, C. Lehmann, M.S. Vorontsova, V. Visser, G. Hempson: Range size of sub-Saharan African grasses	<u>F.M. Ralepele</u> , Y. Nuapia, L. Chimuka, I. Risenga: Responses of selected secondary metabolites and antioxidant activity in <i>Moringa oleifera</i> L. to seasonal variation
15:30	<i>H4 Mulalo Lutombo</i> <i>B1 Tirelo Matlala</i> <i>B2 Dipuo Mosea</i> <i>B3 Arinao Mukatuni</i>	<u>S. Pieterse</u> , A.R. Magee, J.S. Boatwright: Systematics of the genus <i>Esterhuysenia</i> (Rushioideae, Rushieae, Aizoaceae)	<u>J.D. Vidal Jr</u> , P. le Roux, V.R. Clark: Move over tree-line: The C ₃ -C ₄ grass ecotone is a better indicator for climate change monitoring in sub-tropical grassy mountain systems	<u>S.H. Chauke</u> , N. Lall, P. Achar, Q. Kritzinger: Unraveling the potential of South African indigenous plants as biocontrol agents against aflatoxin-producing <i>Aspergillus</i> species
15:50	<i>B4 Dakalo Muthego</i> <i>B5 Mamosa Ngcala</i>	<u>N.S. Malindi</u> , K. Balkwill, R.J. Sebola, R.A. Reddy:	<u>P. Chatanga</u> , E.J.J. Sieben: Variation in plant functional composition of the Afromontane	<u>F.N. Makhubu</u> , M.C. Khosa, L.J. McGaw:

	<i>B6 Samkelisiwe Precious Ngwenya</i>	A taxonomic revision of the genus <i>Sesbania</i> (Fabaceae: Robinieae) in southern Africa	palustrine wetlands along an altitudinal gradient in Lesotho	<i>In vitro</i> investigation of <i>Leonotis leonurus</i> and <i>Clausena anisata</i> extracts on egg hatch and mortality of <i>Meloidogyne incognita</i> second-stage juveniles
16:10	DINE-AROUND CLARENS			

FRIDAY 10 JANUARY 2020				
08:00	Registration (E0014)			
08:20	Announcements (NAS Auditorium)			
08:30	Plenary Lecture: Prof Peter Linder What do restios tell us about the evolution of the Cape flora? Chairperson: Timotheüs van der Niet			
09:30	TEA			
	Lecture Hall 1 Plant Biotechnology Chairperson: Paul Hills	Lecture Hall 2 Invasive alien plant biology Chairperson: Michelle Greve	Lecture Hall 3 Systematics/Plant Ecology Chairperson: Jill Farrant	Lecture Hall 5 Ethnobotany Chairperson: Ashwell Ndhlala
10:00	J. Loubser, <u>P.N. Hills</u> : The effect of a citrus-based plant biostimulant on the growth and gene expression of <i>Arabidopsis thaliana</i> (L.) Heynh	<u>M. Greve</u> , C.E.O. van der Meeden, C. Janion-Scheepers: Biological invasions in South Africa's offshore sub-Antarctic territories	<u>S. Tregonning</u> , A.R. Magee, R.F. Powell, J.S. Boatwright: Systematic studies of the shrubby <i>Antimima</i> species and the taxonomic value of capsule characteristics in the genus (Ruschioideae, Ruschieae; Aizoaceae)	<u>M.A. Mokoena</u> , A.O.T Ashafa, O. Thekiso, N.I. Molefe: <i>In vitro</i> assessment of acaricidal activity of <i>Artemesia afra</i> , <i>Eucalyptus globulus</i> and <i>Tagetes minuta</i> on livestock ticks in the Eastern Free State, South Africa
10:20	P.J. Dlamini, T. Schultz-Viljoen, <u>N.R. Ntuli</u> : Ethyl methanesulfonate mutagenesis and <i>in vitro</i> selection procedure for drought stress tolerance in sugarcane	<u>D.M. Tlaamela</u> , T.M. Mokotjomela, S. Rahlao: Profiling risks and impacts associated with invasive alien <i>Populus alba</i> L. in South Africa	<u>M.O. Yakubu</u> , S.B.M. Chimphango, C.H. Stirton and A.M. Muasya: Host Range of <i>Burkholderia tuberum</i> in Southern African Papilionoid Legumes	<u>LM. Selokela</u> , SM. Laurie, P.Tinyani, D. Sivakumar: The phytonutritional components of six local sweet potato cultivars

10:40	<u>M.O. Akanbi, N.Ludidi:</u> Evaluation of agronomic and drought response traits of two soybean (<i>Glycine max</i>) cultivars for cultivation in the Transkei region of the Eastern Cape	<u>G. Martin, G. Fraser, T. Westwood:</u> Guns and Rosehips	<u>G.B.B Malepe, M. Gryzenhout, G.J. Marais:</u> <i>In vitro</i> investigation of <i>Leonotis leonurus</i> and <i>Clausena anisata</i> extracts on egg hatch and mortality of <i>Meloidogyne incognita</i> second-stage juveniles	J. Hrdlička, T Gucký, O. Novák, M. Kulkarni, S. Gupta, I. Doležalová, J. van Staden, <u>K. Doležal:</u> Karrikinins: from synthesis to analysis
11:00	<u>P. Mangena, Phatlane William Mokwala:</u> Effect of seed viability on germination and in vitro multiple shoot regeneration in soybean (<i>Glycine max</i> L.)	<u>L.D. Adams, G.D. Martin, V.R. Clark, C.T. Downs, V. Thabethe, A. Raji, S. Steenhuisen:</u> The effect of birds on seed dispersal and germination of invasive firethorn	<u>A.P. Moraes, E. Forni-Martins, J. Cabral:</u> Chromosome number and genome size correlate with geographic distribution in orchids	<u>M.M. Lebeloane, K.G. Kgosana, L.J. McGaw:</u> Evaluation of anti-nutritive factors and toxins in fodder trees and shrubs browsed by livestock
11:20	<u>M. Badiwe, A. Klein:</u> Assessing the physiological and biochemical responses of <i>Zea mays</i> to combined <i>Fusarium proliferatum</i> infection and salt stresses	<u>B.A. Mason, G. Martin, G. Fraser, C. Zachariades:</u> Invasive alien plants in an economic crucible: Conducting an economic evaluation of the invasive <i>Rubus</i> genus in South Africa	<u>R.A. Marks, R. VanBuren, J.M. Farrant, D.N. McLetchie:</u> Natural variation in water stress tolerance within and across species	<u>OJO F. Mabel, A.-A.T. Ayomipo:</u> Phytochemical studies of four indigenous vegetables commonly consumed in Ile-Ife, Southwest, Nigeria
11:40	<u>V. Nicolis, E. Venter:</u> A novel integrated-domain carrying nucleotide-binding leucine-rich repeat gene, <i>TaAdnr1</i> , plays a role in the wheat – Russian wheat aphid interaction	<i>A3 Rinae Lucy Nephawe</i> <i>A4 Khensani Vulani Nkuna</i> <i>A5 Menzi Msizi Nxumalo</i> <i>A6 Tsumbedzo Leonard Ramalevha</i>	<i>P9 Loyd R Vukeya</i> <i>P10 Katlego K Mashiane</i> <i>P11 Bernard Olivier</i> <i>P13 Phumlani Viwe Cimi</i>	<i>E19 Dineo Gladys Raphasha</i> <i>E20 Kaylan Reddy</i> <i>E21 Kutullo Nick Shai</i> <i>E22 Mohammed Musa Suleiman</i>
12:00	LUNCH			
	Lecture Hall 1 Conservation Ecology Chairperson: Kevin Balkwill	Lecture Hall 2 Invasive alien plant biology Chairperson: Thabiso Mokotjomela	Lecture Hall 3 Plant Physiology Chairperson: Johannes van Staden	Lecture Hall 5 Ethnobotany Chairperson: Dipuo Mosea

13:00	<u>P.G. Mabuza</u> , K.B. Balkwill: Assessment of population demographics, resprouting and herbivory among <i>Protea curvata</i> populations	<u>T.M Mokotjomela</u> , T.M. Xivuri, T. Nemurangon: Epizoochorous dispersal of the emerging alien cactus species, <i>Cylindropuntia pallida</i> F.M. Knuth, in arid areas of South Africa	<u>M.K. Sekhukhune</u> , MY. Maila, P.W. Mashela: Stimulatory effects of plant growth regulators on <i>Actinidia arguta</i> male stem cuttings at low, medium and high concentration levels	<u>A.R. Ndhlala</u> , T. Tshabalala: Phytochemical, nutraceutical and pharmacological attributes of <i>Moringa oleifera</i> Lam. as a functional food
13:20	<u>NN. Mhlongo</u> , ETF. Witkowski, MF. Pfab: Harvesting impacts and the effects of trade on <i>Euphorbia bupleurifolia</i> and <i>E. umfoloziensis</i> populations	<u>T.M. Mokotjomela</u> , <u>T.M. Xivuri</u> , T. Jaca: Detection of new cactus species and populations in arid areas of South Africa: management interventions and potential impacts	<u>M. Vambe</u> , M.G. Kulkani, J. Van Staden: Effects of smoke-water and vermicompost leachate on morpho-physiological parameters of <i>Ipomoea batatas</i> var. <i>Bophelo</i>	<u>S.C. Ngubane</u> , H. de Wet, S.F. van Vuuren: Ethnobotany and mutagenicity of some medicinal plants used by women in northern Maputaland, to treat gynaecology and obstetrics complaints
13:40	<u>T.H.C. Mostert</u> , R.E. Mostert: Conservation of the rare Warted Forest Orchid, <i>Didymoplexis verrucosa</i>	<u>J-H Keet</u> , D.M. Richardson: <i>Alnus glutinosa</i> (L.) Gaertn. (Black Alder): an emerging invader in South Africa	<u>M.P. Voko</u> , M.G. Kulkarni, J.F. Finnie, J. Van Staden: Seedling emergence behaviour of biostimulant-treated cowpea (<i>Vigna unguiculata</i> L. Walp.) seeds under high-temperature stress	<u>Y. Nuapia</u> , E.Cukrowska, H.Tutu, L.Chimuka: Statistical comparison of two modelling methods on pressurized hot water extraction of vitamin C and phenolic compounds from <i>Moringa oleifera</i> leaves
14:00	<u>T. Variawa</u> , M. Pfab: The conservation status of <i>Euphorbia globosa</i> (Haw.) Sims, a species in international trade	<u>T. Morapi</u> , J.S. Boatwright, S. Geerts: Invasive potential and management of the genus <i>Leptospermum</i> (Myrtaceae) in South Africa	<u>I. Moroenyane</u> , J. Tremblay, É. Yergeau: Temporal and spatial interactions modulate soybean microbiome diversity and succession	<u>T.T. Ramavhale</u> , S.M. Mahlo, J.N. Eloff: Indigenous knowledge on plant species used for the treatment of gonorrhoea in Vhembe District, Limpopo Province
14:20	<u>J.J. Midgley</u> : Mass sterilisation of trees by elephants in Kruger National Park	<u>T.M. Mokotjomela</u> , <u>T. Nemurangoni</u> , T. Jaca: The role of solid waste dumping sites in early detection of	<u>S. Ndlovu</u> , C.M. Van Jaarsveld, N.R Ntuli, S. Mavhengahama: Effect of nitrogen fertilizer application and plant population	<u>N.S. Zwane</u> , H. De Wet, S.F. van Vuuren: An ethnobotanical survey and toxicity study of plants used for

		emerging alien plant species in South Africa	on growth and yield of <i>Solanum scabrum</i>	blood purification by rural communities in northern Maputaland, South Africa
14:40	<u>S.A. Modise</u> , M. Stander, E. Bredenhand: Possible adaptation of the Biotope Quality Index (BQI) to flowering plant data by using composite scaling towards weighed disturbance	<u>M.D. Raseala</u> , P.C. le Roux, M. Greve: Abandoned homesteads as sources of alien invasions		<i>E9 Mzamo Mpendulo N. Mnikathi E14 Oyinlola Olaokun E23 Elelwani Thinawanga</i>
15:00	<u>E.J.J. Sieben</u> , A. Subbiah, N. Job, P. Chatanga, N.B. Collins: Components of species diversity along environmental gradients on various spatial scales in the wetland environments of South Africa	<i>A1 Yetunde Irinyemi Bulu A2 Aluwani Ndanduleni Kwindu</i>		
15:20	TEA			
15:50	SAAB Council AGM			
17:00	Gala dinner and Prize Giving (transport provided) (Golden Gate Hotel)			

SATURDAY 11 JANUARY 2020	
07:00	Hiking Tour to Amphitheatre (Meet at Witsieshoek Mountain Lodge)

Poster Programme

Poster Number	Category: Ethnobotany	
E1	<u>P.W. Mokwala</u>	An investigation into the intra-convertibility of phenolic content expressions in bitter watermelon (<i>Citrullus lanatus</i> var. <i>citroides</i>) rind and flesh
E2	<u>T.E. Adeyeoluwa</u> , F.O. Balogun, L.J. McGaw, A.O.T. Ashafa	Comparative assessment of the total antibacterial activity and selectivity index of the ethanol extracts of single and mixed tropical spices
E3	<u>S. Adhikari</u> , S.J. Siebert, A. Jordaan, F. Siebert	Chromium dust detection on foliar surfaces of food and medicinal plant species used by local communities in Sekhukhuneland, South Africa
E4	<u>R.T. Akande</u> , B. Madikizela, S.M. Nkadimeng, L.J. McGaw	The antimycobacterial, cytotoxic and hepatoprotective effect of <i>Cissampelos owariensis</i> extracts
E5	<u>Z.B. Dubeni</u> , B. Mayekiso, V. Muchenje, M. Makepe	The efficacy of <i>Moringa oleifera</i> (Moringaceae) leaf extracts on the microbial shelf life of meat samples stored at 4 °C and 25 °C, over a period of 4 days.
E6	<u>A.Goliada</u> , N.A. Masevhe	Phytochemical screening, antimicrobial and antioxidant efficacy of the selected medicinal plants from Thulamela Municipality, Limpopo province, South Africa
E7	<u>M.C. Makhado</u> , N.A Masevhe	Antimicrobial activity of plants used to treat Urinary Tract Infections (UTIs) in the Vhembe region of Limpopo province
E8	<u>B.I. Moichwanetse</u> , P.T Ndhlovu, G. Sedupane, A.O. Aremu,	Challenges associated with using ethno-veterinary medicinal plants for prevention of retained placenta among cattle's in Dinokana
E9	<u>M.M.N. Mnikathi</u> , J.F. Finnie, J. Van Staden	Antibacterial and antioxidant activity and phytochemical analysis of <i>Ehretia rigida</i> extracts
E10	<u>S. Mthi</u> , N.L. Skenjana	Systematic review on traditional medicinal plants used for the treatment of livestock diseases in the Eastern Cape Province
E11	<u>L.Nenungwi</u> , M.M. Slabbert, K.L. Prinsloo, T.M. Mokotjomela	Investigation on the use, availability and traditional ecological knowledge of medicinal plants in the Free State, South Africa
E12	<u>M. Nkuna</u> , N.A. Masevhe	Antimicrobial efficacy and synergistic properties of selected South African plants
E13	<u>O.O. Olaokun</u> , S. A. Manonga, M.N. Mkolo	Screening of <i>Englerophytum magalismsontanum</i> (Sond.) T.D.Penn. leaf extracts, fractions and isolated compound for antioxidant activity, phenolic content and digestive enzymes inhibition
E14	N.M. Mkolo, <u>O.O. Olaokun</u> , J.O. Olowoyo, J.N. Eloff, V. Naidoo	Soil parameters and antioxidant activity of South African <i>Hypoxis hemerocallidea</i> corm extracts
E15	M. N. Mkolo, <u>O.O. Olaokun</u> , J. N. Eloff, V. Naidoo	Phytochemical content and antidiabetic activity associated with digestive enzymes inhibition by <i>Hypoxis hemerocallidea</i> corm extracts
E16	<u>O.S. Olawuwo</u> , A.O. Aro, J.N. Eloff, L.J. McGaw	The antifungal activity of <i>Ficus exasperata</i> leaf extracts against <i>Candida</i> species relevant in chicken infections
E17	<u>A.A. Oso</u> , A.O.T. Ashafa	Root Knot Nematodes: Challenge to Vegetable Production in South Africa
E18	<u>T.T. Ramavhale</u> , S.M. Mahlo, J.N. Eloff	Ethnomedicinal use and biological activity of traditional medicine used for the treatment of "u wela" in Vhembe District Limpopo Province

E19	<u>D.G. Raphasha</u> , U. van den Berg, A.R. Ndhlala	An investigation into the amount of phenolic compounds that <i>Artemisia afra</i> root can exude and how far these compounds can travel in the soil
E20	<u>K. Reddy</u> , G.I. Stafford, C.B. Oosthuizen	An in silico approach to better understand compound-receptor interactions of phytochemicals from commonly used sedative and antiepileptic plants with reported benzodiazepine-GABA A - receptor affinity
E21	<u>KN.Shai</u> , K. Ncama, B. Maphosa, JA. Asong, AO. Aremu	Total soluble solids, titratable acidity and pH of common wild fruits in Bushbuckridge Local Municipality
E22	<u>M.M. Suleiman</u> , S.F. Yahaya, A. Mohammed, N.D.G. Ibrahim	Anti-diabetic potentials of stem-bark extracts of <i>Terminalia avicennioides</i> on alloxan-induced diabetic rats
E23	<u>E.Thinawanga</u> ,M.P.Tshisikhawe	Evaluation of non-timber forest products in Tshamutilikwa village, Vhembe District, Limpopo Province South Africa
Category: Invasive alien plant biology		
A1	<u>Y.I. Bulu</u> , R.O. Ahmed	<i>Tithonia rotundifolia</i> distributions and its consequence for soil seed bank
A2	<u>A.N. Kwindu</u> , M.H. Ligavha-Mbelengwa	The phenological study of <i>Lantana camara</i> in some parts of Makhado Municipality; Limpopo Province, South Africa.
A3	<u>R.L Nephawe</u> , M.H Ligavha-Mbelengwa	The response of the seedlings and juveniles of <i>Dichrostachys cinerea</i> and <i>Terminalia sericea</i>
A4	<u>K.V. Nkuna</u> , M.D. Cheek, V. Visser, J.R. Wilson, S. Kumschick	The risks posed by alien <i>Paspalum</i> species to South Africa
A5	JB. Nxele, BA. Mdletshe, BEB. Memela, <u>MM. Nxumalo</u> , HJ. Sithole, PJ. Mlaba	Naming invasive alien plants in indigenous languages: KwaZulu-Natal case study, South Africa
A6	<u>T.L. Ramalevha</u> , M.H. Ligavha-Mbelengwa	Comparison of the degree of impact of <i>Chromolaena odorata</i> (L.) R. M. King & H. Rob and <i>Lantana camara</i> L. on the diversity of native plant species
Category: Plant Biotechnology/Biochemistry		
B1	<u>T. Matlala</u> , B.R. Maseko, K.G. Kgosana	Preliminary screening of anti-nutritive factors and toxins in <i>Milletia grandis</i> , <i>Lantana camara</i> and conventional animal feed
B2	<u>D. Mosea</u> , R. Ngara	Effects of polyethylene glycol-induced osmotic stress on the viability of sorghum cell suspension cultures
B3	<u>A. Mukatuni</u> , P. Mangena, P.W. Mokwala	An investigation on oxidative stress damage and tissue senescence during explant-agrobacterium interaction in soybean (<i>glycine max</i> l.).
B4	<u>D. Muthego</u> , R. Ngara	Gene expression analysis of sorghum cell suspension cultures in response to exogenous abscisic acid.
B5	<u>M.G Ngcala</u> , R.A Ingle, N. Illing	Genome size comparison and germination in resurrection plants <i>Xerophyta humilis</i> , <i>Xerophyta schlechteri</i> and <i>Xerophyta elegans</i>
B6	<u>SP. Ngwenya</u> , R. Ngara	Proteomic changes of sorghum cell suspension cultures in response to combined heat and osmotic stresses
B7	<u>S.C. Sepale</u> , P. Mangena	A study on the effect of colchicine on in-vitro shoot induction and regeneration in soybean [<i>Glycine max</i> (l.) Merrill]

B8	<u>Mathew A Harris</u> , Martin Kemler, Bernard Slippers, Michelle Greve	Do foliar fungal communities mirror the successional trends of woody communities?
B9	<u>V.N. Matsebula</u> , F.D. Dakora	Leaf photosynthesis and water-use efficiency in Jack bean (<i>Canavalia ensiformis</i> L. dc), Lablab (<i>Lablab purpureus</i>), Mucuna (<i>Mucuna pruriens</i>) and Pea (<i>Pisum sativum</i>) in response to Rhizobium inoculation and NPK fertiliser application in Eswatini
B10	<u>M.J. Moloi</u> , M.S. Zungu, R. van der Merwe	Ascorbate peroxidase: a possible tool for drought tolerance selection in edamame
Category: Plant Ecology		
P1	<u>F. De Ridder</u> , J.C. Taylor	Temporal changes in the littoral diatom assemblage of Kidd's Beach South Africa
P2	<u>M. Erasmus</u>	Evaluation of a diatom-based index for acid mine drainage impacted permanent pans in the Mpumalanga Highveld region
P3	<u>B.S.N. Kuhlase</u> , P.C. Le Roux, M. Greve	Taxonomic bias addressed: using bryophytes as an indicator of climate driven range shifts
P4	<u>M. Kwindu</u> , T.S. Masehela, S.J. Siebert, H. van Coller	Weed diversity patterns of maize fields and margins in the grassy biomes of South Africa
P5	<u>E.M. Lebese</u> , R.J. Scholes, S. Archibald	The interactive effect of elevated CO ₂ and rising temperatures on the growth of <i>Leucosidea sericea</i> , <i>Festuca costata</i> and <i>Themeda triandra</i> .
P6	<u>L.P. Mokoena</u> , S. Archibald	Drought response and flammability in perennial C ₄ grasses in South Africa
P7	<u>J.F. Ntuli</u> , J.N. Korsman, J.M. Farrant	Exploring endophytes associated with the resurrection plant <i>Xerophyta schlecteri</i>
P8	<u>R.M. Phetla</u> , S.J. Siebert, R.B. Boneschans	Vegetation and soil types of naturally eroded areas of the Rustenburg Layered Suite in Sekhukhuneland, South
P9	<u>L.R. Vukeya</u> , T.M. Mokotjomela, N.J. Malebo, S. Oke	A 40 years' vegetation cover dynamics in the Free State National Botanical Garden, South Africa
P10	<u>K.K. Mashiane</u> , A. Ramoelo, S. Adelabu, E. Daemane	Patterns of plant diversity and environmental drivers in mesic grassland communities
P11	<u>B. Olivier</u> , W. Truter, R. Buitenwerf, M. Greve	Surface mining activities in South African grasslands: potential impacts on agriculture and water quality
P12	<u>V. Govender</u> , G.V. Cron	Germination rates in flower colour polymorphs of <i>Aloe petricola</i>
P13	<u>PV Cimi</u>	The importance of tree planting: an educational exploration
P14	<u>S. Moodley</u> , G.V. Cron	Investigating the breeding system of the near-threatened <i>Cineraria austrotransvaalensis</i> .
P15	<u>B.H. Daru</u>	Phyloregion: R package for biogeographic regionalization and spatial conservation
P16	<u>R. Cozien</u> , T. van der Niet, S. Steenhuisen, S. Johnson	Caught in a Snap: Elusive ecological interactions revealed through the use of motion trigger camera traps
Category: Plant Physiology		
H1	<u>T.C. Twala</u> , E.T.F. Witkowski, M.A. Whitecross	Assessing foliar chlorophyll content: a comparison of two chlorophyll content meters
H2	<u>T.D. Bulwana</u> , M.H. Ligavha-Mbelengwa	The study of the germination response of <i>Securidaca longipedunculata</i> Fresen seeds under different water regimes
H3	<u>S. Ludick</u> , J.M. Berner, S.S. Cilliers	Comparing the Health Index of <i>Quercus robur</i> L. Trees Situated in Areas with different Adjacent Land Covers

H4	<u>M. Lutombo</u> , P.T. Mabulwana, P. Mangena, P.W. Mokwala	The effects of foliar application of salicylic acid on the response of <i>Capsicum frutescens</i> plants under water deficit stress
H5	<u>S.J. Moloi</u> , R. Ngara	Screening wheat varieties for drought tolerance using physiological and growth parameters
H6	<u>P. Netshituni</u> , M H Ligavha- Mbelengwa	Short-term study of the effects of cutting seedlings, juveniles and adults of <i>Vachellia karroo</i> in the Nylsvley Nature Reserve, Limpopo Province, South Africa.
H7	<u>T.B. Ramala</u> , M.H. Ligavha- Mbelengwa	The study of the germination of <i>Securidaca longepedunculata</i> Fresen on different soil types
H8	<u>S. Ndlovu</u> , P. Mojau, T. Ramakuwela	Isolation and Characterization of Soil-Borne Diseases from Vegetable Gardens and Their Control with Entomopathogenic Nematodes Symbiotic Bacterial Metabolites S
Category: Systematics		
S1	<u>T. Krishanlal</u> , H. Baijnath, Y. Singh	Morphology and leaf anatomy of two species of <i>Hypoxis</i> (Hypoxidaceae) from southern Africa and their taxonomic implications
S2	<u>P.T. Le Roux</u> , M. Struwig, S.J. Siebert	A new species of <i>Stylochaeton</i> Lepr. from the Sekhukhuneland Centre of Plant Endemism.
S3	<u>T. Makhado</u> , Sebola, J.R., Jaca, T., Moteetee, A	A taxonomic revision the genus <i>Trifolium</i> L (Trifolieae, Fabaceae) species in southern Africa
S4	<u>M.C.Manickum</u> , R.J. Sebola, Y.Singh	The Flora of KwaZulu-Natal: progress and future work
S5	<u>K.S Mashego</u> , R.J Sebola , G.V. Cron	Taxonomic re-evaluation of the southern African <i>Cullen tomentosum</i> species complex (Psoraleeae, Fabaceae)
S6	<u>G. Netshifamadi</u> , L.I. Ramovha	The taxonomic significance of bark structure in selected medicinal plants in Fabaceae
S7	<u>O.M Tabane</u> , M. Struwig, MM Le Roux	A taxonomic revision of <i>Adenogramma</i> Rchb. (Molluginaceae) in South Africa.