ONLINE APPENDIX 3

Currently available datasets for supersites

Dataset name	Dataset description	Southern Granites	Southern Basalts	Northern Granites	Northern Basalts
General site description and key reports					
Supersites Background and meta-data	An open-access article in the journal *Koedoe* introducing and describing the supersites can be downloaded from: http://www.koedoe.co.za/index.php/koedoe/article/viewFile/1107/1488 This article is accompanied by an online appendix providing further useful information regarding the supersites (see below), which can be downloaded from: http://www.koedoe.co.za/index.php/koedoe/article/viewFile/1107/1480 In the article the following information is provided: • Rational for supersites • Selection criteria for supersites • Process followed for selecting supersites • Management of supersites and management of research projects on supersites • Data access for supersites Furthermore, the following background data and description for each supersite is provided: • Map showing location, drainage network, and access routes • Phenology/seasonality • Long-term average: • Rainfall • Herbivore biomass (per feeding guild) • Herbaceous biomass • Woody cover • Fire history.	X	X	X	X

Note: This is Online Appendix 3 of Smit, I.P.J., 2020, 'Integrating multi-scaled and multidisciplinary studies: A critical reflection on the Kruger National Park research supersites', *Koedoe* 62(2), a1586. https://doi.org/10.4102/koedoe.v62i2.1586

	In addition, the online appendix provides the following information: • Morphometric features of land types in which supersites occur • Landforms, soils and dominant vegetation associated with the landsystems in which the supersites occur • Hydrogeological characteristics for the regions within which the supersites occur • Annual rainfall for the supersites since 1940 • Historical average herbivore density for supersites (per species) • Job-row-image codes for historical NGI (formerly CD:SM) aerial photography • Aerial and ground photos for supersites (examples) • Maps, showing supersites in relation to park-wide: o Infrastructure (roads and camps) o Long-term average annual rainfall o Physiographic zones o Geology o Altitude and large rivers o Mean annual A-pan equivalent evaporation o Long-term fire return period o Woody cover o Herbivore (grazer, browser, mixed feeder and total herbivore) biomass o Long-term dry-season elephant density o Site locations and site identification numbers of Venter (1990) and VCA surveys on our within 5 km from supersites.				
Supersites Hydrological processes	Water Research Commission final research report from a multi-year hydrological project focusing on groundwater and surface water interaction at southern granites and basalts supersites and providing detailed conceptual models and empirical datasets; Downloadable from http://www.wrc.org.za/wp-content/uploads/mdocs/TT%20619-14.pdf	X	X		
Supersites_ Surface Water, Groundwater and Vadose Zone Interactions in Selected Pristine Catchments on the Kruger National Park	Report outlining results from a series of geophysical surveys that were undertaken in pre-selected 1st to 3rd order catchments (June - July 2011), which informed drilling of groundwater piezometric boreholes.	X	X	X	X
Spatial data layers					
Supersites_boundaries	GIS shapefile delineating the KNP research supersites.	X	X	X	X

Supersites_focal subcatchments3	GIS shapefile delineating the focal subcatchments on the KNP research supersites. These focal subcatchments, covering 1st to 3rd order catchments, have been selected within the supersites, and are core areas proposed for detailed studies within supersites.	X	X	X	X
Supersites_ subcatchments	GIS shapefile delineating the subcatchments and order thereof on the KNP research supersites.	X	X	X	X
Supersites_ Drainage network	GIS shapefile indicating the stream network and Strahler stream order within the KNP research supersites.	X	X	X	X
Supersites_ hydrological transects	GIS shapefile indicating the location of transects within the focal subcatchments of the KNP research supersites where geophysical measurements and detailed hydrological monitoring was conducted.	X	X	X	X
Supersite_ Granite Soil Map	Conceptual hydrological soil response map – for details see: Van Zijl, G. & Le Roux, P.A.L., 2014, 'Creating a conceptual hydrological soil response map for the Stevenson Hamilton research supersite, Kruger National Park, South Africa', *Water SA* 40(2), 331-336.	X			
Supersites_ fire scars	GIS shapefile, summarizing the fire scars recorded within the KNP research supersites since 1941, is a subset from the parkwide fire scar mapping programme (updated until 2019).	X	X	X	X
Georeferenced aerial imagery					
Supersites_NGI acquired colour photography (georeferenced; 0.5m resolution; acquired between 2008-2010)	Aerial photography collected as part of the National Photography and Imagery Programme by the national mapping agency, National Geo-Spatial Information (NGI).	X	X	X	X
Supersites_NGI acquired photography (georeferenced; 0.5m resolution; acquired between 2018-2019)	Aerial photography collected as part of the National Photography and Imagery Programme by the national mapping agency, National Geo-Spatial Information (NGI).	X	X	X	X
Ecological datasets					
Supersites_ Long term annual rainfall from closest rainfall station	Long-term rainfall records at Skukuza (approx. 10km from centre of southern granites supersite), Crocodile Bridge (approx. 13km from centre of southern basalts supersite), Phalaborwa (approx. 15km from centre of northern granites supersite) and Mooiplaas (approx. 5km from centre of northern basalts supersite) rainfall stations recorded since 1940/1941. Updated until 2017/18.	X	X	X	X
Supersites_	Rainfall tipping buckets for SG (14/11/2011 – 10/04/2013; 0.1mm); SB (15/11/2011 – 7/03/2013;	X	X	X	X

Rainfall (tipping buckets)	0.2mm); NG (9/12/2011 – 31/01/2013; 0.2mm) and NB (6/03/2012 – 20/01/2013; 0.2mm)				
Supersites_ Groundwater levels	Groundwater levels of southern basalt supersites – for details see: Riddell, E. S., Nel, J., Fundisi, D., Jumbi, F., Van Niekerk, A. & Lorentz, S. A., 2014, '*Ephemeral Hydrological Processes in Savannas'*, Gezina, Pretoria: Water Research Commission Report.	X	X		
Supersites_ Soil Moisture	Soil moisture measurements for 1st, 2nd and 3rd order catchments (at three depths) – for details see: Riddell, E. S., Nel, J., Fundisi, D., Jumbi, F., Van Niekerk, A. & Lorentz, S. A., 2014, '*Ephemeral Hydrological Processes in Savannas'*, Gezina, Pretoria: Water Research Commission Report.	X	X		
Supersites_ Streamflow	Streamflow at 1st, 2nd and 3rd order catchments streams – for details see: Riddell, E. S., Nel, J., Fundisi, D., Jumbi, F., Van Niekerk, A. & Lorentz, S. A., 2014, '*Ephemeral Hydrological Processes in Savannas'*, Gezina, Pretoria: Water Research Commission Report.	X	X		
Supersites_Phytosociological table of the southern granite supersite	Phytosociological table of the southern granite supersite – for details see: Theron, E.J., Van Aardt, A.C. & Du Preez, P.J., 2020, 'Vegetation distribution along a granite catena, southern Kruger National Park, South Africa', *Koedoe* 62(2), a1588. https://doi.org/10.4102/koedoe.v62i2.1588	X			
Supersites_ Phytosociological classification of the crest, sodic site and riparian communities of the southern granite supersite	Phytosociological classification of the crest, sodic site and riparian communities of the southern granite supersite (December 2016 to April 2018) – for details see: Van Aardt, A.C., Codron, D., Theron, E.J. & Du Preez, P.J., 2020, 'Plant community structure and possible vegetation changes after drought on a granite catena in the Kruger National Park, South Africa', *Koedoe* 62(2), a1585. https://doi.org/10.4102/koedoe.v62i2.1585	X			
Supersites_ Selected soil properties of 3rd order catena in southern granite supersite	Selected soil properties of 3rd order catena in southern granite supersite – for details see: Bouwer, D., Le Roux, P.A.L. & Van Tol, J., 2020, 'Identification of hydropedological flowpaths in Stevenson–Hamilton catena from soil morphological, chemical and hydraulic properties', *Koedoe* 62(2), a1584. https://doi.org/10.4102/koedoe.v62i2.1584	X			
Supersites_Vegetation structure and grass cover of	Vegetation structure and grass cover of catena on southern granite supersite – for details see: Janecke, B.B., 2020, 'Vegetation structure and spatial	X			

catena on southern granite supersite	heterogeneity in the Granite Supersite, Kruger National Park', *Koedoe* 62(2), a1591. https://doi.org/ 10.4102/koedoe.v62i2.1591				
Supersites_Mammal presence on the southern granite supersite	Mammal presence (camera trap data) on the southern granite supersite – for details see: Janecke, B.B. & Bolton, J.G., 2020, 'Variation in mammal diversity and habitat affect heterogeneity and processes of a granite catena', *Koedoe* 62(2), a1592. https://doi.org/ 10.4102/koedoe.v62i2.1592	X			