

Ecosystem Resilience of a South African Mesic Grassland with Change from Rotational to Continuous Grazing

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Table S1. The list of grasses (Poaceae) found in the commercial farm (CMF), cooperative farm (COP) and communal farm (CM) at Pakkies, near Kokstad, KwaZulu-Natal, South Africa. All the grasses are perennial. Nomenclature follows Fish et al. (2015) [72].

Species name	Ecological status	Grazing value
<i>Alloteropsis semialata</i> (R.Br.) Hitchc.	Increaser II	Moderate
<i>Aristida junciformis</i> Trin. & Rupr.	Increaser III	Low
<i>Bothriochloa insculpta</i> (A.Rich.) A.Cumus	Increaser II	Moderate
<i>Brachiaria serrata</i> (Thunb.) Stapf	Decreaser	Moderate
<i>Cymbopogon caesioides</i> (Hook. & Arn.) Stapf	Increaser I	Low
<i>Digitaria monodactyla</i> (Nees) Stapf	Increaser II	Moderate
<i>Diheteropogon amplexans</i> (Nees) Clayton	Decreaser	Moderate
<i>Diheteropogon filifolius</i> (Nees) Clayton	Increaser II	Low
<i>Elionurus muticus</i> (Spreng.) Kuntze	Increaser III	Low
<i>Eragrostis capensis</i> (Thunb.) Trin.	Increaser II	Moderate
<i>Eragrostis chloromelas</i> Steud	Increaser II	Low
<i>Eragrostis curvula</i> (Shrad.) Nees	Increaser II	Moderate
<i>Eragrostis plana</i> Nees	Increaser II	Low
<i>Eragrostis racemosa</i> (Thunb.) Steud.	Increaser II	Moderate
<i>Harpachloa falx</i> (L.f.) Kuntze	Increaser II	Low
<i>Heteropogon contortus</i> (L.) Roem. & Scholt.	Increaser II	High
<i>Hyparrhenia hirta</i> (L.) Stapf	Increaser II	Moderate
<i>Microchloa caffra</i> Nees	Increaser II	Low
<i>Paspalum dilatatum</i> Poir.	Increaser II	High
<i>Paspalum urvillei</i> Steud.	Increaser I	Moderate
<i>Setaria sphacelata</i> (Schumach.) Stapf. & C.E.Hubb. ex M.B.Moss	Increaser II	High
<i>Sporobolus africanus</i> (Poir.) Robyns. & Tournay	Increaser II	Low
<i>Sporobolus pyramidalis</i> P.Beauv.	Increaser II	Low
<i>Themeda triandra</i> Forssk.	Decreaser	High
<i>Trachypogon spicatus</i> (L.f.) Kuntze	Increaser I	Low
<i>Tristachya leucothrix</i> Trin. ex Nees	Increaser I	Moderate

Table S2. The list of non-grass herbaceous plants found in the commercial farm (CMF), cooperative farm (COP) and communal farm (CM) at Pakkies area, near Kokstad, KwaZulu-Natal, South Africa. All plants are perennial. Nomenclature follows World Flora online.

Species name	Family	Life form
<i>Acalypha punctata</i> Meisn. ex Krauss	Euphorbiaceae	Herb
<i>Ajuga ophrydis</i> Burch. ex Benth.	Lamiaceae	Herb
<i>Asparagus aethiopicus</i> L.	Asparagaceae	Shrublet
<i>Asparagus africanus</i> Lam.	Asparagaceae	Herb
<i>Aster bakerianus</i> Burtt Davy ex C.A.Sm.	Asteraceae	Herb

<i>Berkheya purpurea</i> (DC.) Mast.	Asteraceae	Herb
<i>Berkheya setifera</i> DC.	Asteraceae	Herb
<i>Berkheya umbellata</i> DC.	Asteraceae	Herb
<i>Centella asiatica</i> (L.) Urb.	Apiaceae	Herb
<i>Cephalaria oblongifolia</i> (Kuntze) Szabó	Dipsacaceae	Herb
<i>Cephalaria pungens</i> Szabó	Dipsacaceae	Herb
<i>Cineraria dieterlenii</i> E.Phillips	Asteraceae	Herb
<i>Crabbea acaulis</i> N.E.Br.	Acanthaceae	Herb
<i>Crassula lanceolata</i> Endl.	Crassulaceae	Herb
<i>Crotalaria obscura</i> DC.	Fabaceae	Herb
<i>Eriosema cordatum</i> E.Mey.	Fabaceae	Herb
<i>Eriosema distinctum</i> N.E.Br.	Fabaceae	Herb
<i>Eriosema squarrosum</i> (Thunb.) Walp.	Fabaceae	Herb
<i>Felicia wrightii</i> Hilliard & B.L.Burt	Asteraceae	Herb
<i>Gerbera ambigua</i> Sch.Bip.	Asteraceae	Herb
<i>Gerbera piloselloides</i> Cass.	Asteraceae	Herb
<i>Gladiolus oppositiflorus</i> Herb.	Iridaceae	Herb
<i>Helichrysum aureonitens</i> Broth. & Paris	Asteraceae	Herb
<i>Helichrysum cymosum</i> (L.) D.Don ex G.Don	Asteraceae	Herb
<i>Helichrysum glomeratum</i> Kirk	Asteraceae	Herb
<i>Helichrysum nudifolium</i> (L.) Less.	Asteraceae	Herb
<i>Helichrysum odoratissimum</i> Sweet	Asteraceae	Herb
<i>Helichrysum pilosellum</i> Less.	Asteraceae	Herb
<i>Helichrysum splendidum</i> Less.	Asteraceae	Herb
<i>Hermannia depressa</i> N.E.Br.	Malvaceae	Herb
<i>Hibiscus aethiopicus</i> L.	Malvaceae	Herb
<i>Hibiscus pusillus</i> Thunb.	Malvaceae	Herb
<i>Hypoxis argentea</i> Harv. ex Baker	Hypoxidaceae	Herb
<i>Hypoxis hemerocallidea</i> Fisch., C.A.Mey. & Avé-Lall.	Hypoxidaceae	Herb
<i>Hypoxis rigidula</i> Baker	Hypoxidaceae	Herb
<i>Launaea sarmentosa</i> (Willd.) Kuntze	Asteraceae	Herb
<i>Ledebouria cooperi</i> (Hook.f.) Jessop	Asparagaceae	Bulb
<i>Ledebouria ovatifolia</i> (Baker) Jessop	Asparagaceae	Bulb
<i>Lotononis foliosa</i> Bolus	Fabaceae	Herb
<i>Lotononis viminea</i> (E.Mey.) B.-E.van Wyk	Fabaceae	Herb
<i>Oxalis obliquifolia</i> Steud. ex A.Rich.	Oxalidaceae	Herb
<i>Pentanisia angustifolia</i> Hochst.	Rubiaceae	Herb
<i>Polygala rehmannii</i> Chodat	Polygalaceae	Herb
<i>Rafnia elliptica</i> Thunb.	Fabaceae	Shrublet
<i>Rhynchosia cooperi</i> (Baker f.) Harv. ex Burt Davy	Fabaceae	Herb
<i>Rhynchosia minima</i> (L.) DC.	Fabaceae	Shrublet
<i>Rhynchosia totta</i> (Thunb.) DC.	Fabaceae	Herb
<i>Rhynchosia villosa</i> (Meisn.) Druce	Fabaceae	Herb
<i>Roella glomerata</i> A.DC.	Campanulaceae	Shrublet
<i>Senecio coronatus</i> Harv.	Asteraceae	Herb
<i>Senecio latifolius</i> Mast.	Asteraceae	Herb
<i>Senecio speciosus</i> Willd.	Asteraceae	Herb
<i>Striga bilabiata</i> (Thunb.) Kuntze	Scrophulariaceae	Herb
<i>Talinum caffrum</i> (Thunb.) Eckl. & Zeyh.	Portulacaceae	Herb
<i>Tephrosia grandiflora</i> (L'Hér.) Pers.	Fabaceae	Shrublet

Table S3. Number of forb species for each family in the commercial (CMF), cooperative (COP) and communal (CF) farms at Pakkies near Kokstad, KwaZulu-Natal, South Africa.

Family	CMF	COP	CF
Acanthaceae	1	0	0

Apiaceae	1	1	1
Asparagaceae	4	2	0
Asteraceae	17	15	13
Campanulaceae	1	0	0
Caprifoliaceae	1	1	1
Crassulaceae	1	0	2
Dipsacaceae	0	0	1
Euphorbiaceae	8	6	11
Fabaceae	1	3	2
Hypoxidaceae	1	1	1
Iridaceae	1	1	1
Lamiaceae	3	1	2
Malvaceae	1	1	1
Oxalidaceae	1	0	0
Polygalaceae	0	0	1
Portulacaceae	1	0	0
Rubiaceae	0	1	1
Scrophulariaceae	1	0	0

References

72. Fish L., Mashau A.C., Moeaha M.J. and Nembudani M.T. 2015. Identification guide to Southern African grasses. An identification manual with keys, descriptions and distributions. Strelitzia 36. South African Biodiversity Institute, Pretoria. World Flora Online, <http://www.worldfloraonline.org/>, accessed on 19 November 2023.

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