

**Australian Rangeland Society 22nd Biennial Conference, 18-22 September 2022
DRAFT PROGRAM 2023**

Monday 18 September

Field tours and Welcome Function

8.00 am	Field tours to Roebuck Plains Station, Dampier Peninsula and Broome Heritage
5.00 pm	Welcome Function at Broome Fishing Club Pieter Conradie, President, ARS - welcome from Australian Rangeland Society Mayor of Broome - Welcome to Broome

Tuesday 19 September

7.30 am onwards	Registration
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Conference opening and keynote addresses

8.10 am	Welcome to Country – Dianne Appleby, Nyamba Buru Yawuru Welcome from the Australian Rangeland Society – Pieter Conradie, President ARS Traditional Owner Knowledge and Aspirations - Nini Mills, Nyamba Buru Yawuru Soil carbon sequestration in rangelands: Realities and Risks - Beverley Henry, Queensland University of Technology Natural capital: what it is, the opportunities, risks, and the pathway forward - Tony O'Grady, CSIRO
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10.15 am	Morning Tea
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10.45 am	<p>Concurrent session 1 - Traditional land use and management</p> <p>Traditional Owner-led, landscape scale fire management in the expanse of the Australian desert - Ed Muir, Indigenous Desert Alliance</p> <p>Raising the voices of First Nations Peoples: challenges, achievements and opportunities in drought conversations - Raelene Ward, University of Southern Queensland</p> <p>Partners for Cultural Fire Management in the Dry Tropics - Karen Vidler, NQ Dry Tropics</p> <p>Good grazing management and training for the future - Chongie Howard, HGH Contractors</p> <p>Listening to Country – Collected Perspectives on Threatened Species Conservation from the WA Rangelands - Chris Curnow, Rangelands NRM</p> <p>The sum of small parts: collaborative fire management changing landscape fire regimes in north-western Australia - Jardine Macdonald, Rangelands NRM</p> <p>Traditional Owners Taking Care of Country and Sharing Knowledge - Julie Melbourne, Nyamba Buru Yawuru, Broome</p>	<p>Concurrent Session 2 - Coming to grips with carbon and natural capital</p> <p>Meeting the challenges of emissions reduction, profitability, and drought resilience in Western Australia's Southern Rangelands - Christophe D'Abaddie, Department of Primary Industries and Regional Development, WA</p> <p>Policy, governance, and institutional barriers and opportunities for ecosystem service markets in grazing land systems - Bradd Witt, University of Queensland, St Lucia</p> <p>Policy development to Drive Regenerative Rangeland Management - Greg Brennan, Grazing Innovation</p> <p>Managing a large carbon project using time-controlled grazing and long rest management techniques - James Kerr, Paroo Pastoral Company</p> <p>Collaborative Carbon Farming: Opportunities and Risks - Alex Baumber, University of Technology, Sydney</p> <p>Greenhouse Emissions Accounting: the on-farm implications of the choice of metrics - Joshua Peart, Queensland Department of Agriculture and Fisheries</p> <p>Do Carbon Projects work in the rangelands? Lessons from a Pastoralist and project Developer - Helga Carroll-Himberg, South Pole Australia</p> <p>Know Your Value! The Importance of Independent Advice in a Changing World - Richard Marver, Contour Environmental and Agricultural Consulting</p>
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12.45 pm	Lunch	
13.45 pm	<p>Concurrent session 3 - Resilience in a land of drought and flooding rains</p> <p>Ranching in the Chihuahuan Desert - Alejandro Carrillo, Grasslands Regeneration Project, LLC</p> <p>Drier and Wetter Times: Rainfall is Episodic - Greg Curran, Animal and Climate Investigations, Broken Hill</p> <p>Resilience in our land of drought and flooding rains and this thing called carbon - David Mclean, Resource Consulting Services</p> <p>Grazing to Increase Resilience - James Gordon, Mt Pleasant Grazing, Qld</p> <p>Resilient plants - yam daisies appear again on Hay plains - Sally Ware, Riverina LLS, Hay, NSW</p>	<p>Concurrent Session 4- Collaboration and partnerships</p> <p>Achieving productivity and environmental outcomes through collaborative research - Angus Whyte, Gatlet Pty Ltd, NSW</p> <p>The Brigalow Catchment study - a call for collaboration - Amanda Elledge, Department of Environment and Science, Qld</p> <p>Birds of the Outback: Unveiling the Secret Life of the Oriental Pratincole Through Local Knowledge - Grace Maglio, Wader's Life</p> <p>Objective assessment of a new 'Climate smart grazing forage budget tool' - Giselle Whish, Queensland Department of Agriculture and Fisheries</p>
15.10 pm	Afternoon Tea	
15.40 pm	<p>Concurrent Session 5 - From the Drought Hub</p> <p>Pasture And Land Condition Assessment In The Arid Shrublands Using Off-The-Shelf Drones - Richard Marver, Contour Environmental and Agricultural Consulting</p> <p>Using spatial remote sensed total vegetation cover time series to trigger destocking for erosion control - Mary Goodacre, Southern NSW Drought, Innovation and Adoption Hub</p> <p>Rapid Assessment of Mitchell Grass on Southern Gulf Rangelands using Drone Imagery and Machine Learning - Lucy Gardner, James Cook University</p> <p>Mapping and Monitoring Feed from Space - Tony Randall, South Australian Drought Resilience, Adoption and Innovation Hub</p>	<p>Concurrent Session 6 - Modelling and planning</p> <p>Modelling SchMOOdellining - what's grass got to do with it? Optimising your animal production data sets - Robyn Cowley, Department of Industry Tourism and Trade, NT</p> <p>Simple classification tree models to predict pasture condition - Karyn Reeves, Department of Primary Industries and Regional Development, WA</p> <p>MyFORAGE an online system for free patch, paddock and property scale grazing land management reports - Grant Fraser, Queensland Department of Environment and Science</p> <p>Paddock Power!: A user-friendly tool for planning new pastoral infrastructure - Dionne Walsh, Range IQ</p> <p>LEAF Planning for Landscape and Business Management Direction - Richard Marver, Contour Environmental and Agricultural Consulting</p> <p>Desert Channels Queensland and NQ Dry Tropics successfully collaborate on Maryvale Creek, Burdekin Catchment, Qld - Joe O'Reagain, NQ Dry Tropics</p>
17.00 pm	Poster viewing and drinks and canapés	
18.00 pm	Bookings have been made at three restaurants	

Wednesday 20 September

Keynote addresses

8.00 am	<p>Passing the baton - Amelia (Milly) Nolan, Humans of Agriculture</p> <p>Effective property visits to rangeland pastoral owners and managers - Bob Shepherd, Queensland Department of Agriculture and Fisheries (retired)</p> <p>BoM in the Bush - Linking Climate Science and Decision Making - Andrew Marshall, Bureau of Meteorology</p> <p>Biocrusts, ecological indicators in the Australian rangelands - Wendy Williams, University of Queensland</p>
10.00 am	ARS Announcements - <i>The Rangeland Journal</i> - Paul Novelly and the <i>Range Management Newsletter</i> - Noelene Duckett
10.15 am	Morning Tea

10.45 am	<p>Concurrent Session 7 - Passing the Baton 1</p> <p>Building Rangeland Careers - Vanessa Anderson, Western Landcare, NSW</p> <p>Yes, My Parents taught me - Shariqa Hussain, JMI, India</p> <p>Passing the Baton - sharing some thoughts on Station management - Mervyn Wortley, Ruby Plains Station, WA</p> <p>Cultivate and care for livestock and rangeland - Peter Letchford, Pastoral Veterinary Services, Kununurra WA</p> <p>Succession the long journey - Ardie and Kacie Lord, Lord Pastoral</p> <p>Managing 'Hillgrove' a northern beef property – comparing 1993 to 2023 and beyond - Marcus Pearce, Mernoo Station, Qld</p> <p>Presentation of Award of Excellence to Tom Mann - Pieter Conradie, Queensland Department of Agriculture and Fisheries</p>	<p>Concurrent Session 8 – Climate extremes and drought</p> <p>Environmental stress and reproductive efficiency of cattle in the northern rangelands - John Gaughan, University of Queensland</p> <p>Hot And Cold Cattle: Developing Cattle-Specific Thermal Stress Forecast Products – Tim Cowan, University of Southern Queensland</p> <p>The Bureau of Meteorology's Newest Multi-Week to Seasonal Forecast Products Targeted to Agriculture - Tim Cowan, University of Southern Queensland</p> <p>Impact of flash drought on vegetation in Australian Rangelands - Hanh Nguyen, Bureau of Meteorology</p> <p>Preparing for Drought - what the farmers say - Jennifer Laffan, Department of Primary Industries, NSW</p> <p>Using climate information in the Kimberley for drought and flood resilience – Anne-Marie Huey, University of Southern Queensland</p>
12.35 pm	Lunch	
13.35 pm	<p>Concurrent Session 9 - Pass the baton 2</p> <p>Where to from Here? A Reflection on the Land Services Program - Christine Plummer, Western Local Land Services, NSW</p> <p>Researching the rangelands - tips for young players - Robyn Cowley, Department of Industry, Tourism and Trade, NT</p> <p>Passing the Baton - engaging the next generation in rabbit management - Peter Day, Foundation for Rabbit Free Australia, SA</p> <p>The Next Generation Land Managers' Project - creating future sustainable land managers through Rangeland Management Courses - Mary Williams, Department of Industry, Tourism and Trade, NT</p> <p>Birds, buffel, brigalow and bovines; integrating conservation with production in Queensland rangelands - Brodie Crouch, University of Queensland</p> <p>Increasing adoption of phosphorous supplementation in Northern Australia - are your heifers deficient? - Annie Bone, Department of Primary Industries and Regional Development, WA</p> <p>Ord valley cotton and maize production. Can it complement cattle? Jack Daniel, Northern Australian Crop Research Alliance</p> <p>The art of creating good cost-effective science communications - Chris Hetherington, Department of Primary Industries and Regional Development, WA</p> <p>Northern Australian citizen-based groundwater sampling program - Jenny Davis, Charles Darwin University</p>	<p>Concurrent session 10 - Biocrusts and soil properties</p> <p>Effects of grazing and fire management on rangeland soil and biocrust microbiomes - Maria Vega, University of Queensland</p> <p>Quantifying plant available nitrogen from biocrusts at two long-term research sites in the Australian Rangeland - Jaidyn Eastaughffe, Department of Industry, Tourism and Trade, NT</p> <p>Determining methods for assessment of bio crusts and ground cover using digital phone records - Than Myint Swe, University of Queensland</p> <p>Considering geomorphic processes in rangeland rehabilitation works - Paul Theakston, Western Local Land Services NSW</p> <p>The Brigalow Catchment Study: Conservative grazing management decreases runoff and erosion during extreme drought - Craig Thornton, Queensland Department of Environment and Science</p>
15.00 pm	Afternoon Tea	

15.35 pm	<p>Concurrent Session 11 – Diversification, large feral herbivores and weeds</p> <p>Legume-based production paddocks increase productivity and drought resilience in north Queensland - Kendrick Cox, Queensland Department of Agriculture and Fisheries</p> <p>Risk of agricultural plants becoming environmental weeds in the northern rangelands – Carla Milazzo, Department of Primary Industries and Regional Development, WA</p> <p>Regional Biosecurity Groups in the Rangelands Landscape - Dick Pasfield, Kimberley Regional Biosecurity Association</p> <p>Lesson learnt from a 45 years-long feral donkey management program in Western Australia - Magdalena Zabek, Department of Primary Industries and Regional Development, WA</p> <p>Rubber vine eradication in the East Kimberley: collaboration to fight a common enemy - Curly Yates, Department of Primary Industries and Regional Development, WA</p> <p>The Question of Camels - Weapons against weeds or liability for landholders - Natalie Pearce, Desert Channels Queensland</p> <p>Irrigated mosaic agriculture changing beef production in northern WA – Carla Milazzo, Department of Primary Industries and Regional Development, WA</p> <p>Aminocyclopyrachlor - a new herbicide for woody weed control - Jyri Kaapro, Envu Australia</p>	<p>Concurrent session 12 - Managing and measuring grazing impact 1</p> <p>Composition and consequences of grazing pressure in Queensland - Lester Pahl, Queensland Department of Agriculture and Fisheries</p> <p>Technology adoption for grazing land management in the Burdekin Catchment, Queensland - Joe O'Reagain, NQ Dry Tropics</p> <p>Carrying capacity estimates for the pastoral Southern Rangelands of Western Australia: review of discount factors - Kath Ryan, Department of Primary Industries and Regional Development, WA</p> <p>Applying a risk based approach for pastoral land management in Western Australia - Dr Rob Sudmeyer, Department of Primary Industries and Regional Development, WA</p> <p>Two complementary methods measure recovery of a degraded landscape in Central Australia - Gary Bastin, Alice Springs</p> <p>Rain ready rangelands paddock challenge: trialing research station grazing strategies on commercial Central Australian properties - Lakota Taber, Department of Industry, Tourism and Trade, NT</p> <p>Defining Safe: Utilisation rates to improve land condition in central Australia - Chris Materne, Department of Industry, Tourism and Trade, NT</p> <p>Queensland's Northern Gulf Grazing Land Condition Decline: 1990-2018 - Niilo Gobius, Queensland Department of Agriculture and Fisheries</p>
17.05 pm	Poster viewing and drinks and canapés	
18.05 pm	Choose your own adventure in Broome	
Thursday 21 September		
ARS General Meeting		
7.30 am	General meeting of the Australian Rangeland Society	
Keynote addresses		
8.25 am	<p>Virtual fencing and other matters - Phil Vercoe, University of WA</p> <p>Prospects for agricultural intensification in northern Australia's rangelands - Cuen Petheram, CSIRO</p> <p>Managing the Rangelands and Herd for Sustainability and Profitability - Ben Dwyer, Harvest Road Group</p>	
9.55 am	ARS announcements - International Rangeland Congress 2025 - Nicole Spiegel; International Year of Rangelands and Pastoralists 2026 - Dana Kelly	
10.10 am	Morning Tea	

10.40 am	<p align="center">Concurrent session 13 - Managing and measuring grazing impact 2</p> <p>State and transition models for tussock grasslands and woodlands of the Kimberley - Kath Ryan and Chris Hetherington, Department of Primary Industries and Regional Development, WA</p> <p>Native Pasture Restoration in the Kimberley Region, Western Australia - Peter Golos, Department of Biodiversity, Conservation and Attractions, WA</p> <p>Regenerating rangelands in the Norwest with fire, grazing, rest and collaboration - Jardine Macdonald, Rangelands NRM</p> <p>Management of pasture dieback, rundown and Indian couch invasion in buffel pastures of central Queensland - Paul Jones, Queensland Department of Agriculture and Fisheries</p> <p>Digging Deep to better manage pastoral country – understanding soils in arid landscape - Andrea Tschirner, South Australian Arid Lands Landscape Board</p> <p>Seeing is believing – Barkly Mitchell Grass Recovery Project - Jaidyn Eastaughffe, Department of Industry, Tourism and Trade, NT</p> <p>How does the Department of Primary Industries and Regional Development assess rangeland condition – Nathan Penny, Primary Industries and Regional Development WA</p> <p>Mitchell grass response to moisture stress and defoliation - David Phelps, TNQ Drought Hub (JCU)</p> <p>Mitchell grass response on flood affected country in the northern downs region of Queensland - Katie Hay, Queensland Department of Agriculture and Fisheries</p>	<p align="center">Concurrent Session 14 - From the sky and machine learning</p> <p>Grazing decision support tool uses satellite-derived vegetation production data and user-defined animal behaviour variables - Tipton Hudson, Washington State University, USA</p> <p>Building a national biomass service for producers - Peter Scarth, Cibo Labs</p> <p>Detecting change from grazing management in NSW rangelands using remote sensing - Sarah McDonald, NSW Department of Primary Industries</p> <p>Use of a Satellites imagery to detect Pastoral activities in Al Rawashdeh Forest, Sudan - Mohammed Abdelkreim, University of Science and Technology, Sudan</p> <p>Remote Sensing technology supporting forage budgeting, natural capital and landscape carbon in the northern rangelands - Juan Guerschman, Cibo Labs</p> <p>Mapping monthly deviation of expected total vegetation cover for the accumulated antecedent precipitation in Australia - John Leys, Australian National University</p> <p>Estimating Pasture Biomass from Photographs Using Neural Nets - Luis Woodrow, Queensland Department of Environment and Science</p>
12.45 pm	Lunch	
Plenary Session		
13.15 pm	<p>Summary - Dionne Walsh, RangelQ</p> <p>Final Remarks - Matt Fletcher, Chair of the Organising Committee</p>	
14.15 pm	Close	
18.00 pm	Conference Dinner at Broome Surf Lifesaving Club	

