



Landcare Checks In - Monday 3 May 2021 at 2.00 – 3.00 pm

Discussion Topic: Native Grasses in the Rangelands

Following on Landcare Checks In discussions in February about native grasses for grazing and grain we focused another Landcare Checks In session on what's happening with native grasses in the rangelands of WA.

- Who is engaged in using and trialling native grasses in the rangelands?
- What new approaches are being used?
- What assistance and resources do landcarers/farmers need?



View the recording here -

<http://www.landcarewa.org.au/wp-content/uploads/2021/05/LCI-May-3-Native-Grasses-in-the-Rangelands.mp4>

Presenters:

Todd Erickson, PhD

Senior Research Fellow - *School of Biological Sciences, The University of Western Australia*

Project Director - Global Innovation Linkages (GIL) Project - "Eco-engineering solutions to improve mine-site rehabilitation outcomes"

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Andrew Mitchell

- keen observer of the botany and ecology of WA's arid, semi-arid and tropics for the past 40 years
- co-author of Arid Shrubland Plants of WA. Hoping to produce a third edition within the year.

Native grasses in Rangelands is in very early days, an emerging area

Challenges

- Native seeds are expensive, and availability is an issue.
- Seed recruitment, germination
- Buffel Grass (introduced) is a major issue encroaching from the north to south areas that were previously inhabited by native grasses/saltbush
- Grazing pressure on native perennial grasses. Issue of continuous grazing. Grasses have declined but distribution has not changed. Southern areas dependent on summer rainfall.
- Limited of knowledge of local native grasses
- Local tenure and access to land is an issue, legislation and IP acknowledgement
- Smaller players - Landcare NRM, pastoralists - cost remains an issue.
- Lack of reliable rainfall is an issue, soil moisture content
- Funding for smaller players landcare/NRM

Opportunities

- Seeds for rehabilitation and Seeds to eat
- Interest in native grains for food eg. Woolly Butt (*Eragrostis eriopoda*) – damper/bread. Also Spinifex. Emerging market – respect Traditional knowledge of grain use. And food interest leaning on that knowledge. IP acknowledgement.
- Mining has promoted development of a market. There are 3- 5 seed collectors who come from the south to seasonally collect quantities off wild collections over last 10 years.
- Interest in native grasses for fodder shrubs – landholders are keen to learn more
- Land repair through rehabilitation and restoration
- Sustainability - Native seed farming - Seed Production Areas.
- Creating a wild collection market
- Resilient grasses eg. kangaroo grass but is it palatable?
- Checking for seed dormancy and how to break dormancy through seed enhancements eg. remove natural hair appendages with smoke/flame
- Always have a range of species to provide resilience.
- Share knowledge as it's such an emerging little know area

Question: Destocking? - perennials come back slowly – need to destock other grazing animals as well. Species and location specific whether grasses will return. Depends how long and heavily grazed or if soils have been changed. May take 50, 60 years in depleted areas so generally needs intervention.

How many species of native grasses are there?

Approx. 3000 native plants and estimated 200-300 native grasses in arid shrublands/Rangelands area. Pilbara has 1800 known native plants - have attempted seed collection of 5% of the flora about 90 species. Target the most common species or genera. Spinifex is mining regulated to return for ecological regeneration.

Burning - Jardine McDonald - Rangelands NRM, Broome

- Spinifex needs burning. Important to give areas a spell after fires to give them a chance to regenerate.
- Fire and grazing (wholistic/regenerative) can be good but need resting periods. Watch out for issue of patch grazing after burning.
- Fire ecology in these systems is a good thing – adapted for fire and respond to smoke and heat. But with repeat grazing depletion of seed bank.
- Eg. Rangelands - Dampier Peninsula – working with traditional owner groups, department and other land managers to coordinate right way management. Cools burns at the right time of the year - Fire working group – collaborative effort, multiple benefits.

Other resources

- Northern Agricultural Catchments Council Native Grasses Workshop – March 2021 – Annabelle Garratt – gave a brief overview of the outcomes
- Rangelands NRM produced a Field Guide to the Common Grasses of the Southern Rangelands in 2015