Photographic Evidence for Landscape Change

TRENDS IN THE ARID ZONE OF SOUTH AUSTRALIA

Introduction

Comparison of photos of the same scenes taken years apart permits visual assessment of landscape trend.

Understanding trends assists land management.

Comparisons of landscapes reveal various trends over the long term.

Photos from SA Pastoral Board Collection provide suitable comparison.

Nature of trends

Trend analysis in arid zone plant communities focuses on perennial plant species.

Trend analyses examine species composition and structure of the plant community.

Life cycle changes in plant populations also become apparent in trend studies.

Species composition and community structure

Examining species composition and community structure reveals:

- maintenance of plant communities ie *no change is a trend*
- the appearance and elimination of plant species
- increase or reduction in the abundance of plant species present

Alterations to composition and abundance

These can lead to

- gross change in structural form eg shrubs invading grassland creating shrubland
- subtle change in structural form eg increasing shrub abundance creates open shrubland from very open shrubland
- gross change in community layering eg replacement of shrub understorey with a grassy one

Life cycle change

Life cycle changes involve the appearance and disappearance of plants - germination, maturation and death.

Plant species do this all the time - population turnover.

Needed to maintain composition and structure though abundance fluctuations may occur.

Often interrupted or assisted by natural or human-induced disturbance.

South Australian Pastoral Board Photo Collection

Over 6000 photos in the collection from 1942 to 1967.

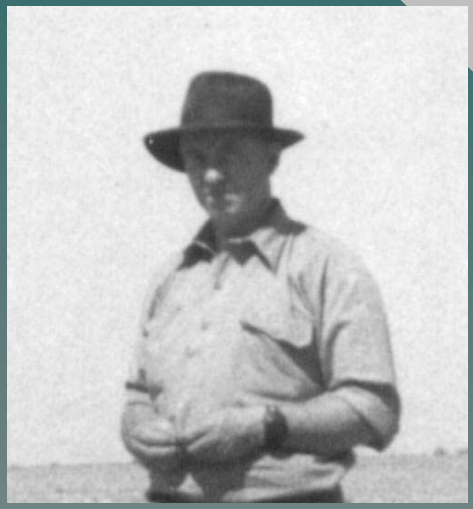
Descriptions include location, subject and date.

Photo subjects include pastoral improvements, activities and landscapes.

Taken mainly by Cecil Goode, W Steve Reid, Gordon Buchanan and Jim Johnson.

Pastoral Board Staff 1955

WS Reid JL Johnson CP Melville GA Buchanan



Bollard's Lagoon
At Riecks No 2 bore site
approx 5 miles W from
N.S.W. ℄ corner facing
S-W along the sand hill
showing Cassia pleuro-
carpa, Digaristida, odd
buckbush, Senecio
Gregorii, needlewoods
& odd mulga

FNE 7/60 FS-6

F5 No 6 20·7·60

Notes by WS Reid on the rear of contact print

Photo 1

Photo 2

Notes scribed onto a photo which is attached to a report

depressions, and from the few live plants that remained there has been an excellent regeneration of saltbush, as the following photograph discloses:-

Plumbago, 60 chains east of Billeroo dam and well. Showing regeneration of saltbush in the former slight depressions between the intervening bare stony surfaced patches of clay. An excellent temporary cover of bindii and annual herbage extends right up to and around the dam and well.

Report with illustrative photo attached

Cecil Goode

Photo 3

Photo 4

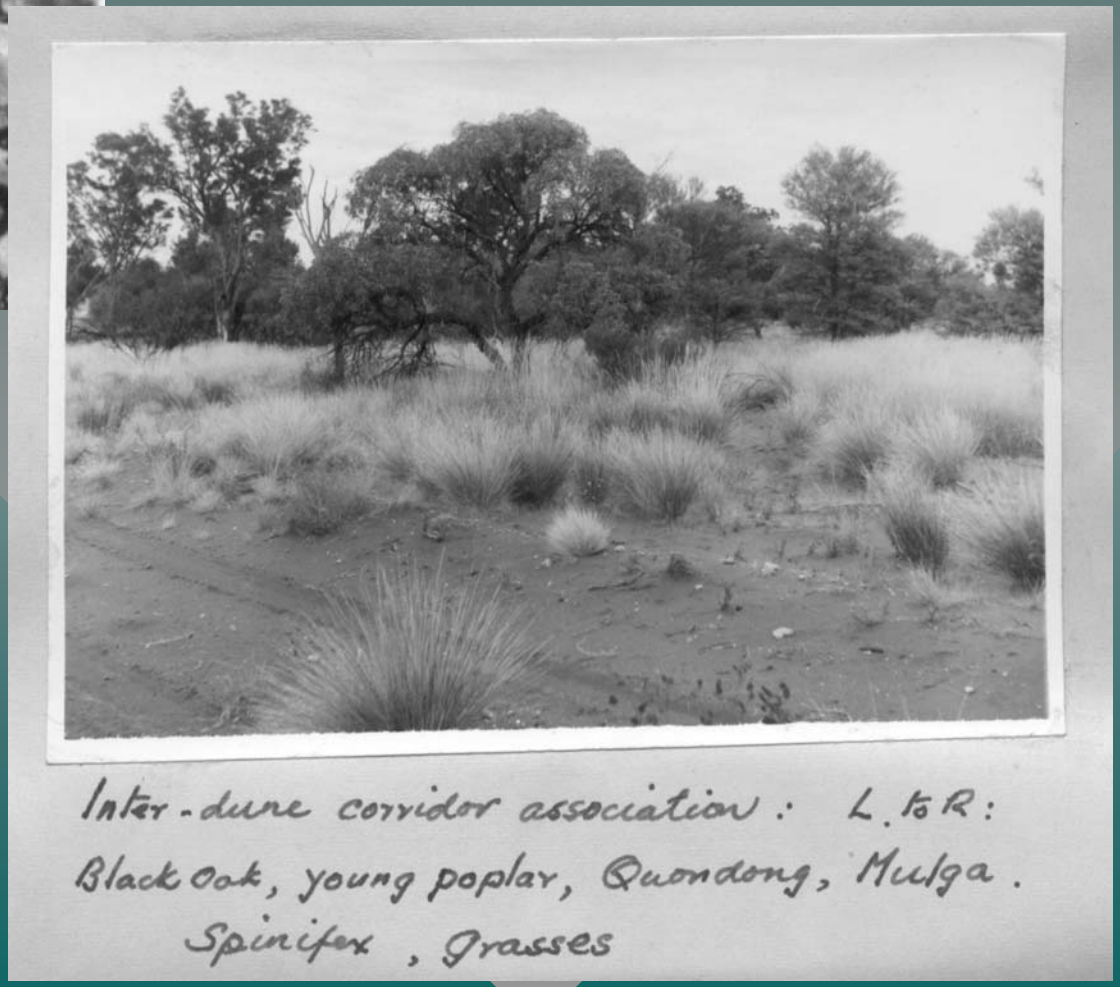


Photo with written notes attached to report

Jim Johnson

Notes

Handwritten notes by GA Buchanan, including vegetation and location

20. Carrewerloo · Shed Paddock · Stony undulating Rubbleland carrying an excellent cover of perennial as well as annual saltbush together with bunch Scattered bluebush and odd bullockbush · South Tent Hill in background ·

21. New Horseshoe Dam in Horseshoe Paddock

Close

- Long Term Trends from Historic Photos Project is a series of photo-comparisons in four outback districts.
- Some arid zone communities have undergone substantial change and others resilient to change.
- All plant communities and all districts show both change and resilience.