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http://www.agric.wa.gov.au/progserv/natural/assess/PDF_files/mapping_overview.pdf

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Group members who assisted are, in alphabetical order:
John Bessell-Browne, Mir Frahmand, Paul Galloway, Phil Goulding, Ted Griffin, Rohan Marold, Geoff Moore, Tim Overheu, Daya Patabendige, Heather Percy, Brian Purdie, Melanie Roberts, Angela Stuart-Street, Peter Tille, Dennis van Gool, Bill Verboom, John Wagnon, Georgina Wilson.

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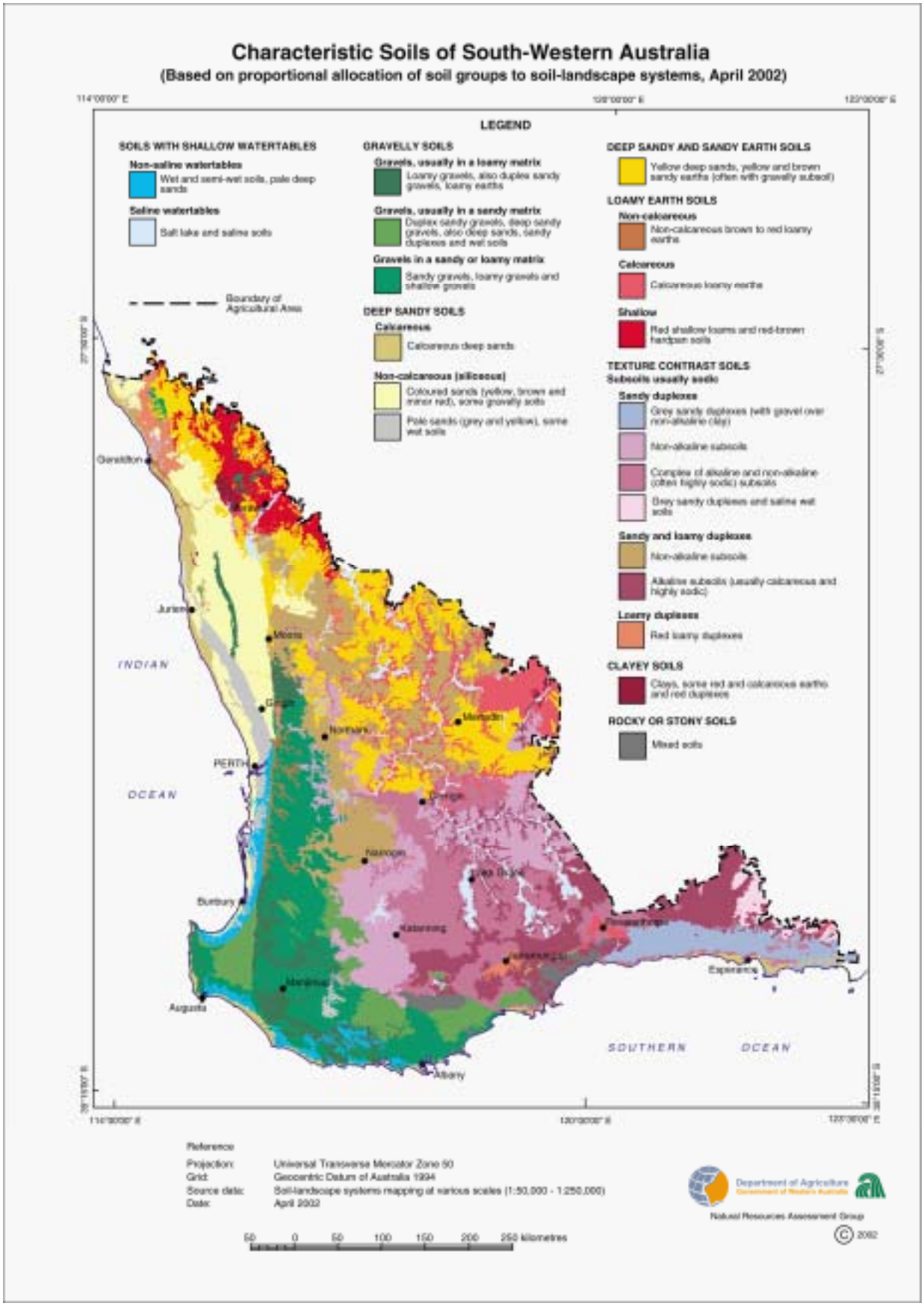
Phil Goulding organised the diagrams.

Daya Patabendige provided the photographs of field texturing soils.


Characteristic Soils of South-Western Australia
(Based on proportional allocation of soil groups to soil-landscape systems, April 2002)
LEGEND
SOILS WITH SHALLOW WATERTABLES
Non-saline watertables
Wet and semi-wet soils, pale deep sands
Saline watertables
Salt lake and saline soils
Boundary of Agricultural Area
GRAVELLY SOILS
Gravels, usually in a loamy matrix
Loamy gravels, also duplex sandy gravels, loamy earths
Gravels, usually in a sandy matrix
Duplex sandy gravels, deep sandy gravels, also deep sands, sandy duplexes and wet soils
Gravels in a sandy or loamy matrix
Sandy gravels, loamy gravels and shallow gravels
DEEP SANDY SOILS
Calcareous
Calcareous deep sands
Non-calcareous (siliceous)
Coloured sands (yellow, brown and minor red), some gravelly soils
Pale sands (grey and yellow), some wet soils
DEEP SANDY AND SANDY EARTH SOILS
Yellow deep sands, yellow and brown sandy earths (often with gravelly subsoil)
LOAMY EARTH SOILS
Non-calcareous
Non-calcareous brown to red loamy earths
Calcareous
Calcareous loamy earths
Shallow
Red shallow loams and red-brown hardpan soils
TEXTURE CONTRAST SOILS
Subsoils usually sodic
Sandy duplexes
Grey sandy duplexes (with gravel over non-alkaline clay)
Non-alkaline subsoils
Complex of alkaline and non-alkaline (often highly sodic) subsoils
Grey sandy duplexes and saline wet soils
Sandy and loamy duplexes
Non-alkaline subsoils
Alkaline subsoils (usually calcareous and highly sodic)
Loamy duplexes
Red loamy duplexes
CLAYEY SOILS
Clays, some red and calcareous earths and red duplexes
ROCKY OR STONY SOILS
Mixed soils
Geraldton
Jurien
Moora
Gingin
Northam
Merredin
PERTH
Corrigin
Narrogin
Bunbury
Katanning
Manjimup
Augusta
Albany
Esperance
INDIAN
OCEAN
SOUTHERN
OCEAN
Reference
Projection: Universal Transverse Mercator Zone 50
Grid: Geocentric Datum of Australia 1994
Source data: Soil-landscape systems mapping at various scales (1:50,000 - 1:250,000)
Date: April 2002
50 0 50 100 150 200 250 kilometres
Department of Agriculture
Natural Resources Assessment Group
© 2002

Characteristic soils map of south-western Australia

This map provides an **overview** of the distribution of soils in south-western Australia. It shows 21 groups of soils that characterise the south-western Australian soil-landscapes. These are broadly grouped into the following 8 categories:

Soils with shallow watertables	Soils which are wet in some part of the profile for a major part of the year
Gravelly soils	Soils dominated by ironstone gravels
Deep sandy soils	Soils which are sandy to at least 80 cm
Deep sandy and sandy earth soils	Soils which are sandy at the surface, and sandy to loamy at depth
Loamy earth soils	Soils which are loamy at the surface, and loamy to clayey at depth
Texture contrast soils (duplexes)	Soils with a texture contrast within the top 80 cm (e.g. sand over clay, loam over clay)
Clayey soils	Soils which are clayey throughout
Rocky or stony soils	Soils dominated by stone or rock

The map is based on *systems* level information from the soil-landscape mapping conducted by the Natural Resources Assessment Group (NRAG), available from the Department of Agriculture, Western Australia.

The soil-landscape *systems* for south-western Australia form part of a mapping hierarchy, where detailed mapping is used to build map units which can be used at a broader scale. The soil-landscape *systems* information is the fourth level in the six level mapping hierarchy, and is useful for regional level assessments of soil resources. More information on the mapping hierarchy and what it means is available the from the Department of Agriculture's Land Resource Assessment website (details below).

How to interpret the map

At the *systems* level the map units are impure, with many soils potentially occurring within any given system. The map therefore presents individual soils or groups of soils that are *characteristic* for each system, although an individual soil may not dominate each system.

Uses of the map

The map provides a useful overview of the regional soil resources of the State relevant to:

- education
- regional agricultural industry planning
- farming systems
- plant breeding
- land use planning
- agricultural extension
- soil-related hazards.

Further information

Soil Groups of Western Australia, Resource Management Technical Report 193, Department of Agriculture, Western Australia.

More information on the mapping program and availability of data, including this map and text in pdf format, can be accessed at the Land Resource Assessment website at the Department of Agriculture, Western Australia.

www.agric.wa.gov.au/progserv/natural/assess/Index.htm (external site)
agweb/progserv/natural/assess/Index.htm (internal site)

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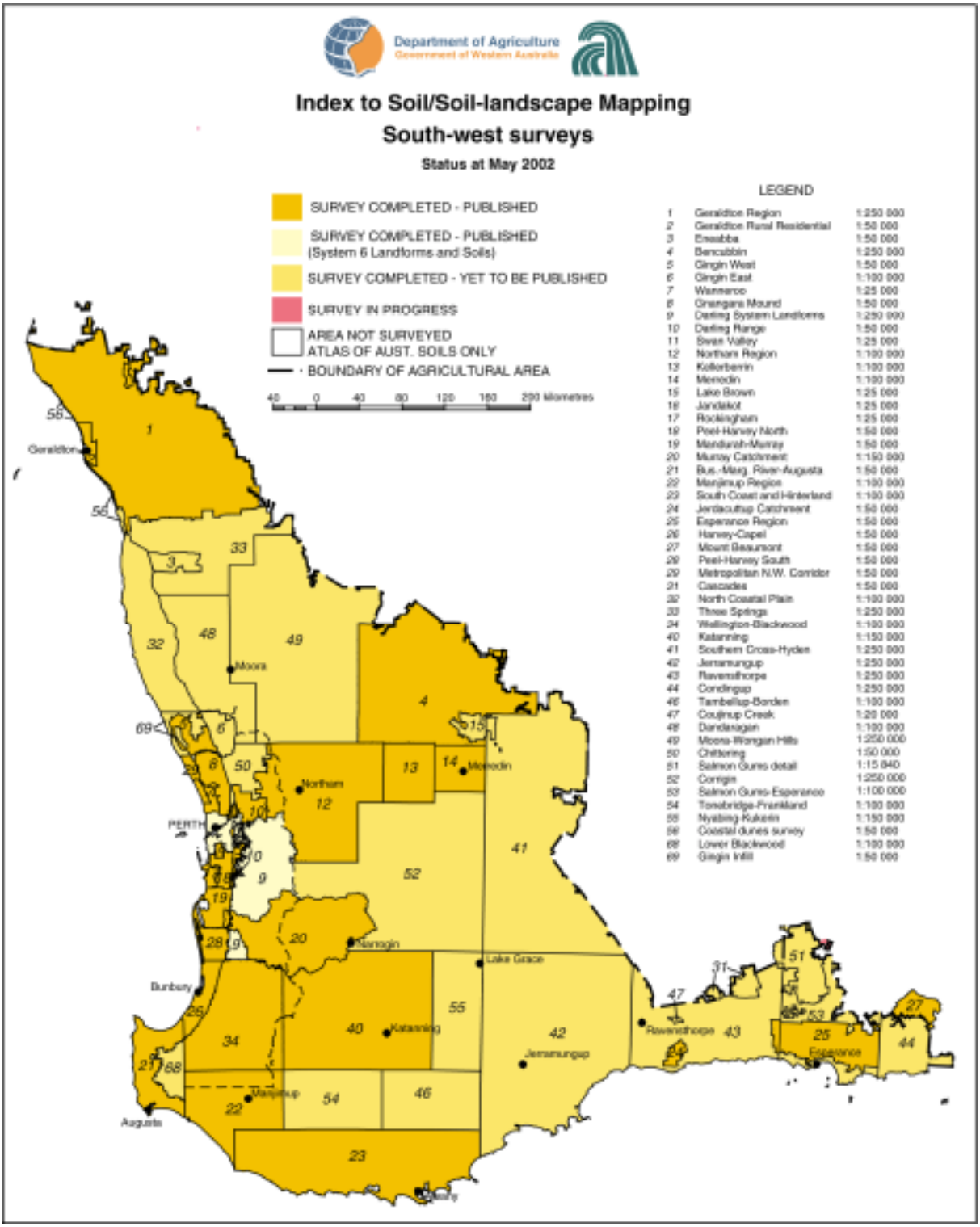
Department of Agriculture
Government of Western Australia
Index to Rangeland Land System Mapping
Status at May 2002
SURVEY COMPLETED - PUBLISHED
SURVEY COMPLETED - YET TO BE PUBLISHED
SURVEY IN PROGRESS
AREA TO BE SURVEYED
AREA NOT SURVEYED
(Crown Land, Arid Interior etc.)
BOUNDARY OF AGRICULTURAL AREA
100 0 100 200 300 400 kilometres
North Kimberley
Ord-
Victoria
West Kimberley
Broome Coastal
Roebourne
Plains
Pilbara
Ashburton River
Gascoyne River
Carnarvon
Basin
ARID INTERIOR
Wiluna-Meekatharra
Murchison River
Ajana
North
Eastern
Goldfields
Sandstone-
Yalgoo-
Paynes Find
Nullarbor
Western Nullarbor
Southern
Goldfields
Lake Johnston
Western
Mining
Survey
AGRICULTURAL AREA
(See index to soil/soil landscape mapping)
PERTH


Department of Agriculture
Government of Western Australia
Index to Soil/Soil-landscape Mapping
South-west surveys
Status at May 2002
SURVEY COMPLETED - PUBLISHED
SURVEY COMPLETED - PUBLISHED
(System 6 Landforms and Soils)
SURVEY COMPLETED - YET TO BE PUBLISHED
SURVEY IN PROGRESS
AREA NOT SURVEYED
ATLAS OF AUST. SOILS ONLY
BOUNDARY OF AGRICULTURAL AREA
40 0 40 80 120 160 200 kilometres
LEGEND
1 Geraldton Region 1:250 000
2 Geraldton Rural Residential 1:50 000
3 Eneabba 1:50 000
4 Bencubbin 1:250 000
5 Gingin West 1:50 000
6 Gingin East 1:100 000
7 Wanneroo 1:25 000
8 Grangarra Mound 1:50 000
9 Darling System Landforms 1:250 000
10 Darling Range 1:50 000
11 Swan Valley 1:25 000
12 Northam Region 1:100 000
13 Kellerberrin 1:100 000
14 Merredin 1:100 000
15 Lake Brown 1:25 000
16 Jandakot 1:25 000
17 Rockingham 1:25 000
18 Peel-Harvey North 1:50 000
19 Mandurah-Murray 1:50 000
20 Murray Catchment 1:150 000
21 Bus.-Marg. River-Augusta 1:50 000
22 Manjimup Region 1:100 000
23 South Coast and Hinterland 1:100 000
24 Jerdacuttup Catchment 1:50 000
25 Esperance Region 1:50 000
26 Harvey-Capel 1:50 000
27 Mount Beaumont 1:50 000
28 Peel-Harvey South 1:50 000
29 Metropolitan N.W. Corridor 1:50 000
31 Cascades 1:50 000
32 North Coastal Plain 1:100 000
33 Three Springs 1:250 000
34 Wellington-Blackwood 1:100 000
40 Katanning 1:150 000
41 Southern Cross-Hyden 1:250 000
42 Jerramungup 1:250 000
43 Ravensthorpe 1:250 000
44 Condingup 1:250 000
46 Tambellup-Borden 1:100 000
47 Coujinup Creek 1:20 000
48 Dandaragan 1:100 000
49 Moora-Wongan Hills 1:250 000
50 Chittering 1:50 000
51 Salmon Gums detail 1:15 840
52 Corrigin 1:250 000
53 Salmon Gums-Esperance 1:100 000
54 Tonebridge-Frankland 1:100 000
55 Nyabing-Kukerin 1:150 000
56 Coastal dunes survey 1:50 000
68 Lower Blackwood 1:100 000
69 Gingin Infill 1:50 000
Geraldton
Moora
Northam
Merredin
PERTH
Bunbury
Narrogin
Lake Grace
Katanning
Ravensthorpe
Jerramungup
Manjimup
Augusta
Esperance

Soil Supergroup and Soil Group names and database codes

Yellow sandy earth	464	57

Index to local soil names

Index to Soil Groups