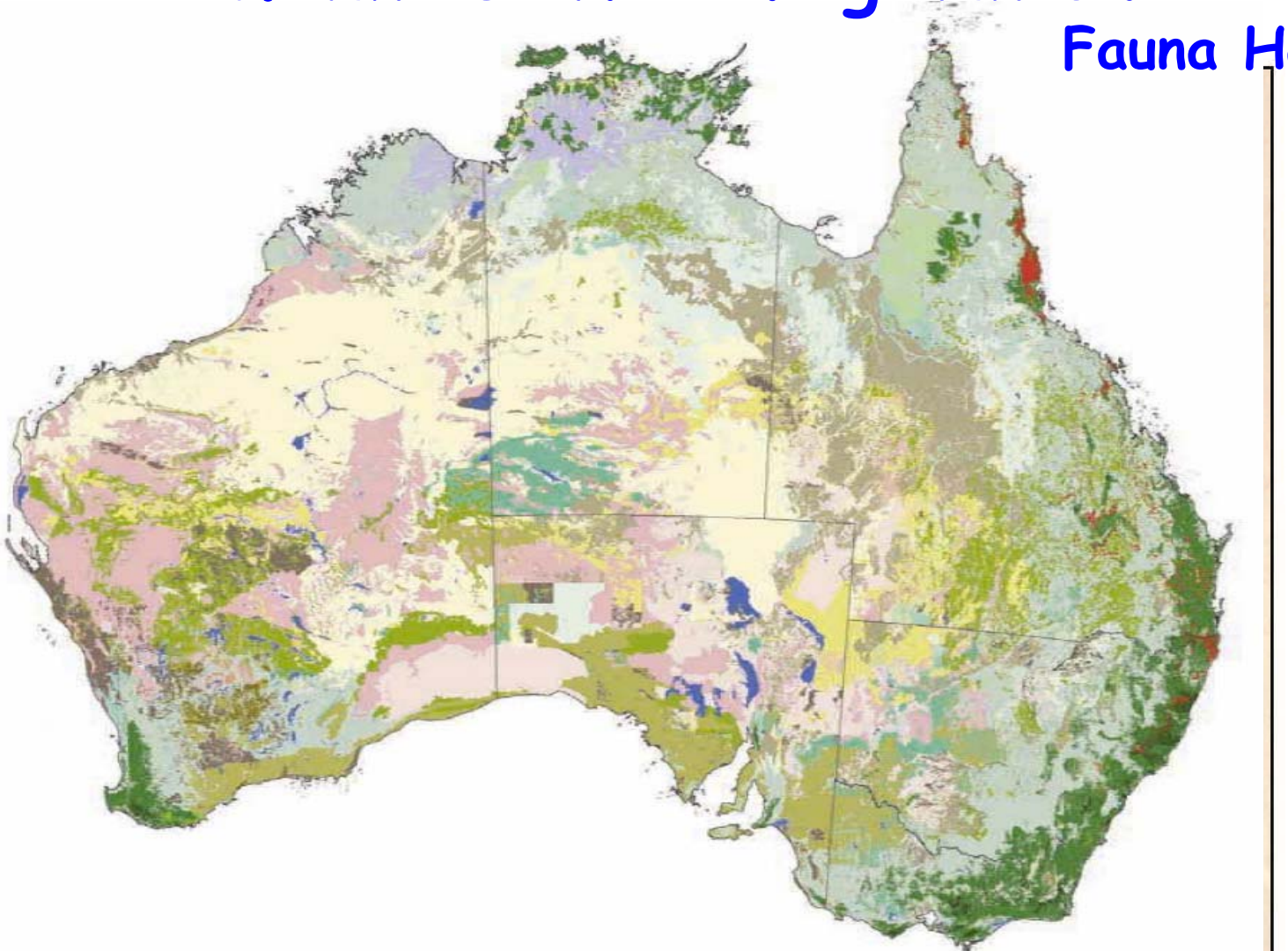
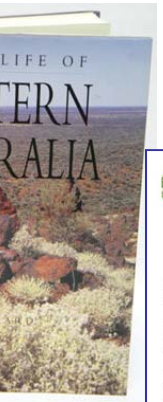
What is it? - ~~Vegetation~~ Fauna Habitat



What is it? - Vegetation



ACT NOW FOR THE FUTURE | Department of Environment and Conservation — Our environment, our future

WA vegetation mapping BlueSheet

(Last updated September 2008)

sustainable consulting

A Where are we now?

Around us
- Increasing development pressures leading to declining biodiversity
- Increasing climate change focus & impacts
- Competing / siloed initiatives & short-term thinking
- Mining boom leading to growing environmental impacts, staff shortages, rising costs & unprecedented wealth
- Increasing Indigenous involvement in planning matters
- Strong State Government focus on infrastructure

WA vegetation mapping
- WA a large & diverse state
- Current maps largely derived from Beard work undertaken in the 1970s
- DEC/DAF as joint custodians of current maps

Strengths & opportunities
- Beard work well understood & widely accepted
- Logical hierarchy in place
- Moderate detail for most of state
- Rapid technology advances

Issues
- Scattered & inconsistent data sets
- Lack of legislative triggers
- Scarce funding (due to focus, scale & duration of work)
- Current maps used beyond original intent
- Gaps in data mean "don't know what don't know"
- Increasingly diverse user needs
- Inconsistent definitions & assumptions
- Growing divide between current maps & actual vegetation distribution & condition
- Shifting taxonomy
- Localised decision-making
- Aging experts not being replaced
- Limited floristic information in current maps
- Limited training
- Not regularly updated or updatable
- Inadequate statewide resolution

Focusing question
How can best capitalise on the current boom & great work undertaken by Beard to ensure we understand & effectively manage WA's unique vegetation for the benefit of future generations

B Where do we want to be?

Statewide botanical information system
to inform…
- Conservation planning & management
- Development decisions

….about aspects of biodiversity & its relationship to other natural resources

Underpinned by

A suite of integrated, scientifically rigorous maps covering all of WA
which….
- Enable effective bioregional & sub-regional planning, management & assessment
- Take account of varying regional biodiversity & land-use patterns
- Interface effectively with the broader vegetation information system

Key attributes
- User-friendly
- Widely-valued
- Fit-for-purpose
- Reliable
- Updatable
- Compliant (with relevant standards & protocols)

Guiding principles
- Flexibility
- Integration
- Transparency
- Collaboration
- Efficiency

C What do we do to get there?

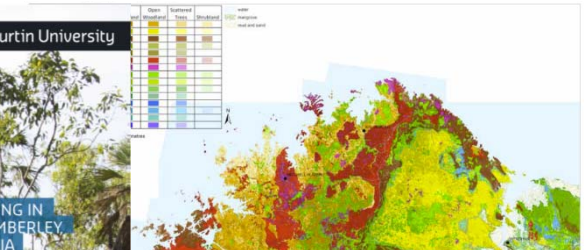
1. **Think 'whole vegetation information system', but focus primarily on 'vegetation map' component**

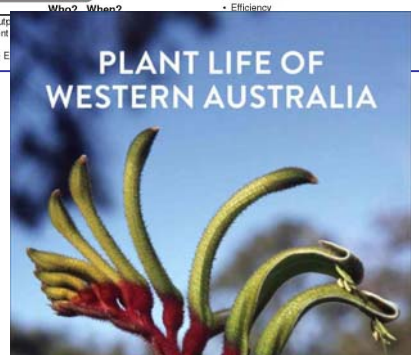
	Map	Data
Vegetation	X	Beard/Hopkins
Community		Nature map
Flora		Florabase

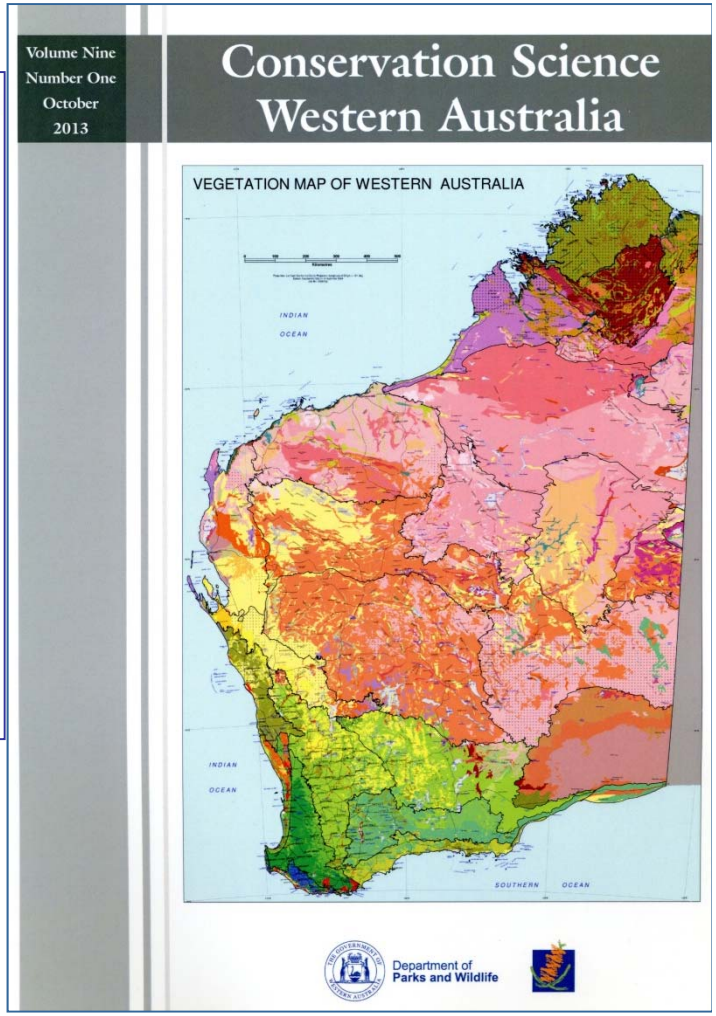
2. **Build on existing maps while continuing to use them** *("change the engine while flying the plane")*
3. **Plan & manage as inter-generationally significant project**
   1. Engage key stakeholders & mobilise support
   2. Undertake preliminary detailed design (including definitions, hierarchy, linkages, products, methodology, sequence, governance structure, resourcing, change management)
   3. Mobilise political support (sustained leadership & in-principle funding commitments, legislation)
   4. Secure necessary funding (internal seed funding, then leverage external funding, break political cycles)
   5. Update detailed design if necessary (depending on results of phases 3 & 4 above)
   6. Establish project (recruit team, set-up base, form partnerships)
   7. Implement agreed plan
   8. Lock-in continuous improvement cycle

D How do we make this happen?

What?	Who?	When?
1. Prepare & distribute workshop outp		
2. Prepare & table scoping document DEC Corporate Executive		
3. Implement will of DEC Corporate E		

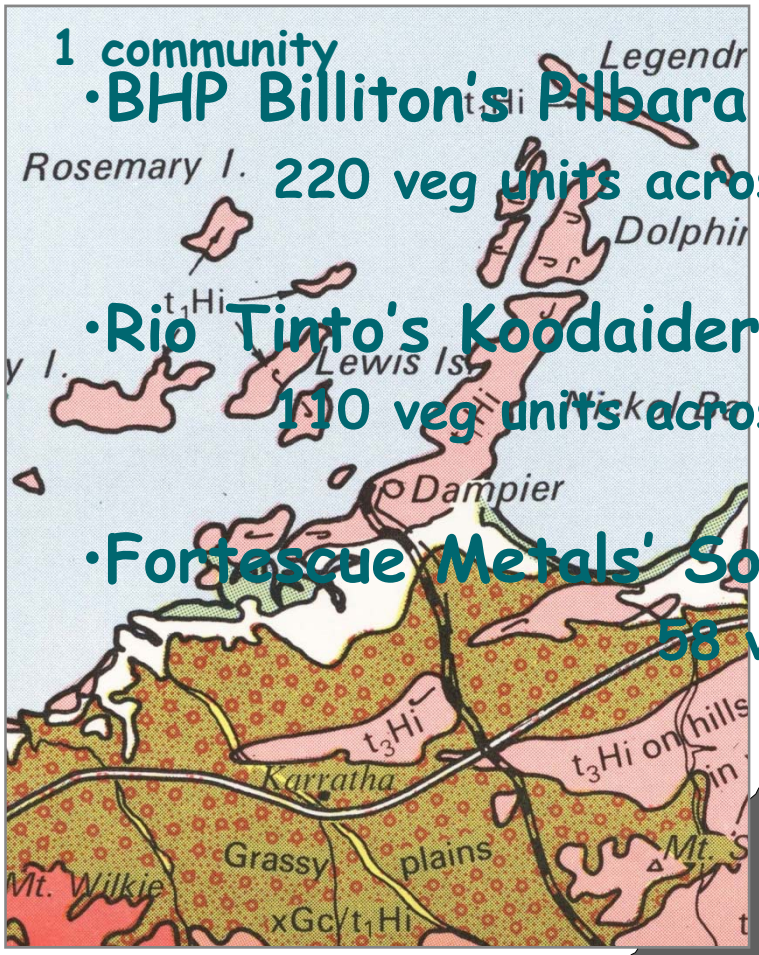


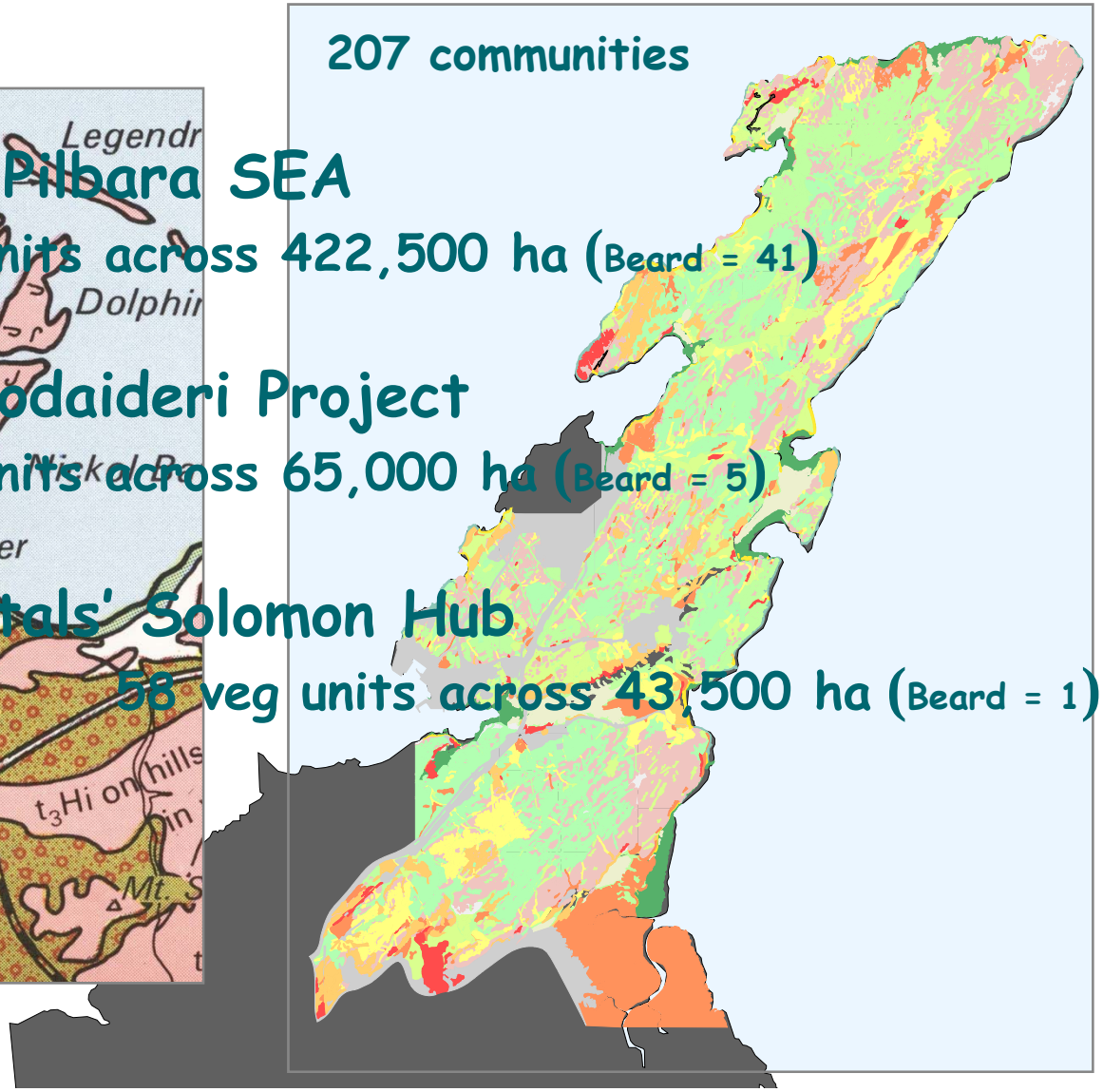




What is it? - Vegetation

NO LONGER 'FIT FOR PURPOSE'





- BHP Billiton's Pilbara SEA
  220 veg units across 422,500 ha (Beard = 41)
- Rio Tinto's Koodaideri Project
  110 veg units across 65,000 ha (Beard = 5)
- Fortescue Metals' Solomon Hub
  58 veg units across 43,500 ha (Beard = 1)

What is it? - Vegetation Issues

THERE IS A LOT OUT THERE!

Vegetation Reports

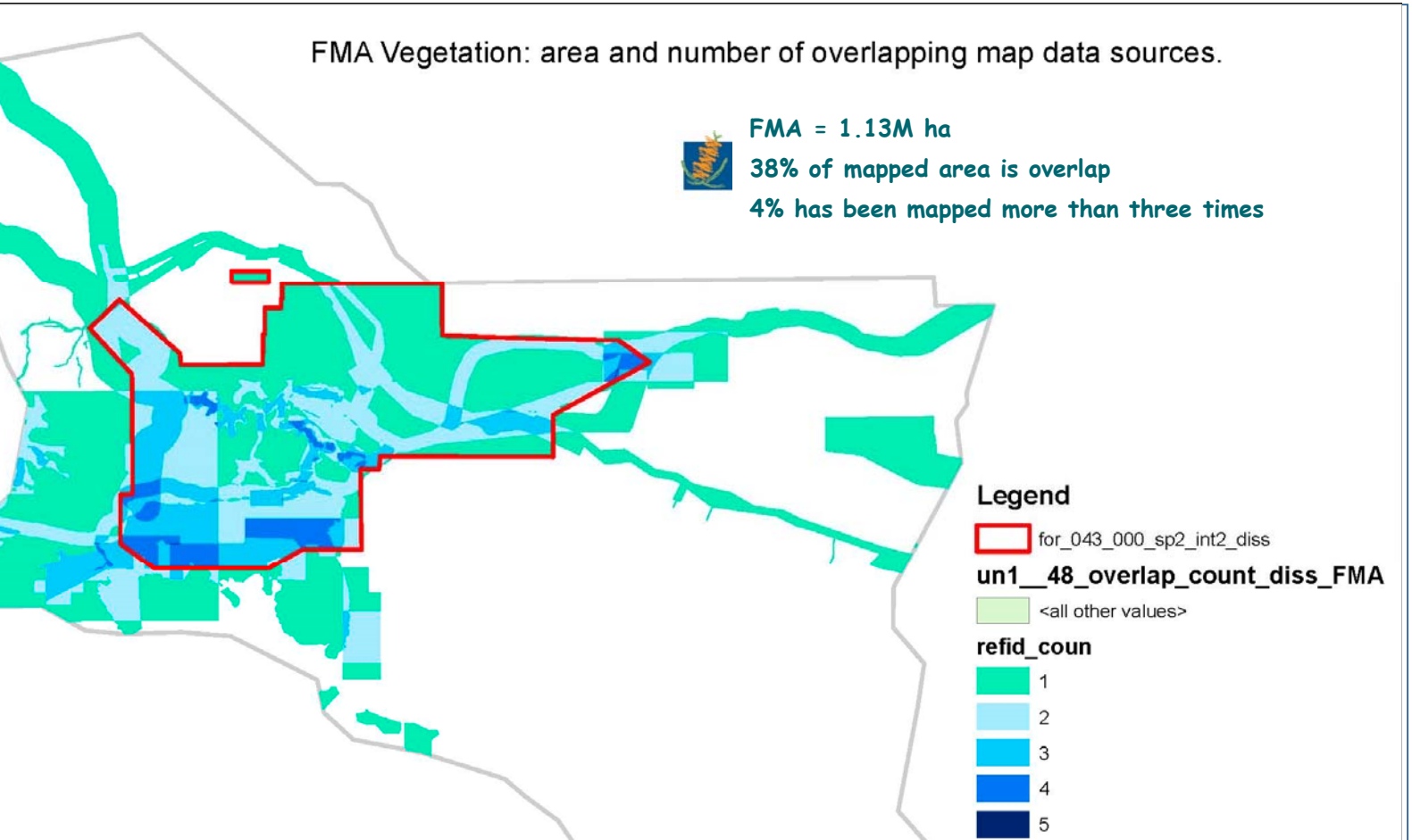
- Western Australia (1994): ~620 (Lyons & Gibson)
- Pilbara Biological Bibliography (2002): ~150 (~700)
- Avon baselining (2010): ~60 reports / ~450 maps
- Great Western Woodland (2013): ~270 reports / 75 maps
- BHP Billiton's Pilbara SEA (2016): ~225 reports

Also, in 2014/15

- 31 EIA assessments
- 50 non-mining Native Vegetation Clearing Permits

What is it? - Vegetation Issues

THERE IS A LOT OUT THERE!



What is it? - Vegetation Issues

THE OPPORTUNITIES

NVIS for Western Australia

(WAVIS – WA Vegetation Information System)

- Standards & Protocols – NVIS, Essential Environmental Measures Veg Working Group
- Capture & store new Vegetation polygons, Structural description & Floristic inventory
- Make WAVIS RAD compliant

What do we know about it

THERE IS A LOT OF DATA OUT THERE!

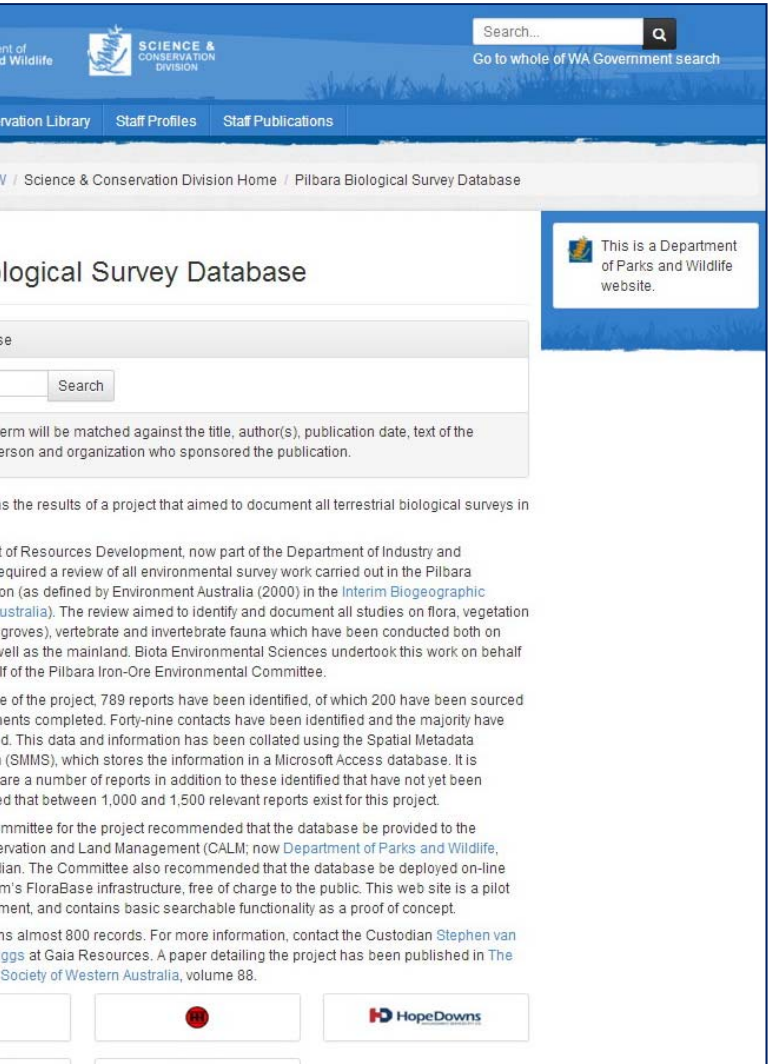
Biological Survey Reports

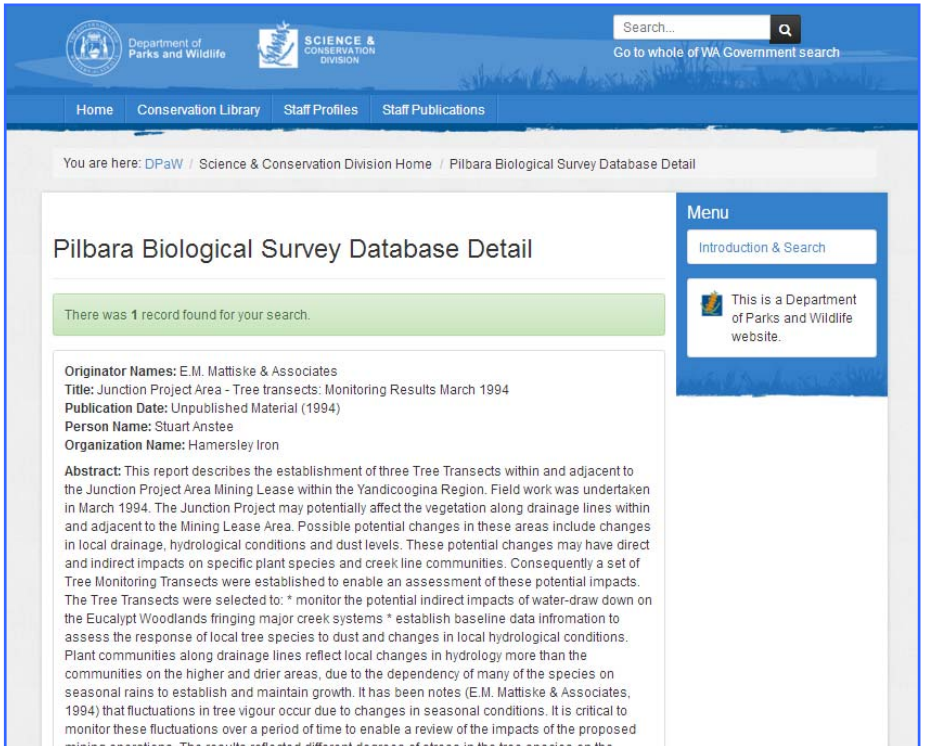
- Western Australia (1994): ~2,300 (Lyons & Gibson)
- Pilbara Biological Bibliography (2002): ~720
  (2006): ~1,370
  (2015): ~3,000+
- BHP Billiton's Pilbara SEA (2015): ~375
- Terrestrial Ecosystems (Fauna only): ~609

TERRESTRIAL ECOSYSTEMS

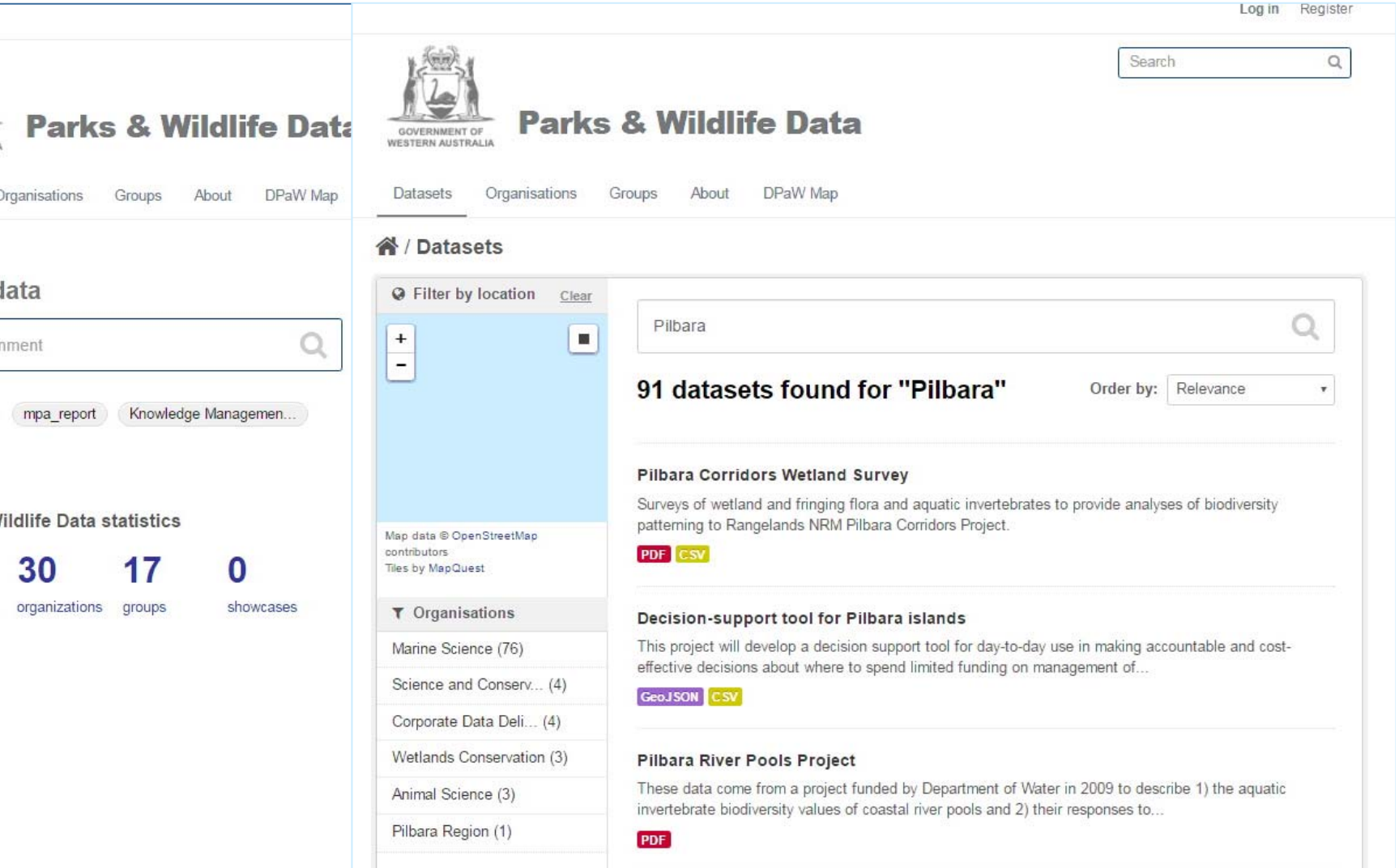
T MOST ARE OUT OF SIGHT & NOT ACCESSIBLE!

What do we know about it





What do we know about it



What do we know about it

WALGA
WORKING FOR LOCAL GOVERNMENT

vironmental Planning Tool

ographic information system (GIS)
cially tailored to WA Local Governments.

GREAT VICTORIA DESERT
BIODIVERSITY TRUST

HOME ABOUT US OUR REGION OUR PROJECTS WHAT WE DO WORK WITH US RESOURCES NEWS CONTACT

MAPPING – KNOWLEDGE HUB

Home / Our Region / Mapping – Knowledge Hub

OUR REGION

› Mapping – Knowledge Hub

The 'Knowledge Hub' is designed to capture all available information and reports on the GVD (WA parts). This will be an ongoing project as reports are added to the collection. We invite you to use and interrogate the map and provide us with feedback on what we're missing / how it could be improved and if you have any reports to contribute. To provide feedback, please contact: Kathryn.sinclair@gvdbiodiversitytrust.org.au

Future Considerations

ts has happened & is happening

here is a need & demand

- Scientific Sites Portal
- Biological Survey Database
- WAVIS
- Spatially enabled Biological Data Catalogue

ts of OPPORTUNITIES

- '*Its Time*' - Coalition of the Willing
- Data everywhere
- Citizen Science
- Joint Management – Traditional Owner ecological knowledge
- Innovation will help, requires development & deployment
- WA BIODIVERSITY SCIENCE INSTITUTE (WABSI)
  EcoInformatics Node

ome Challenges

THANK YOU