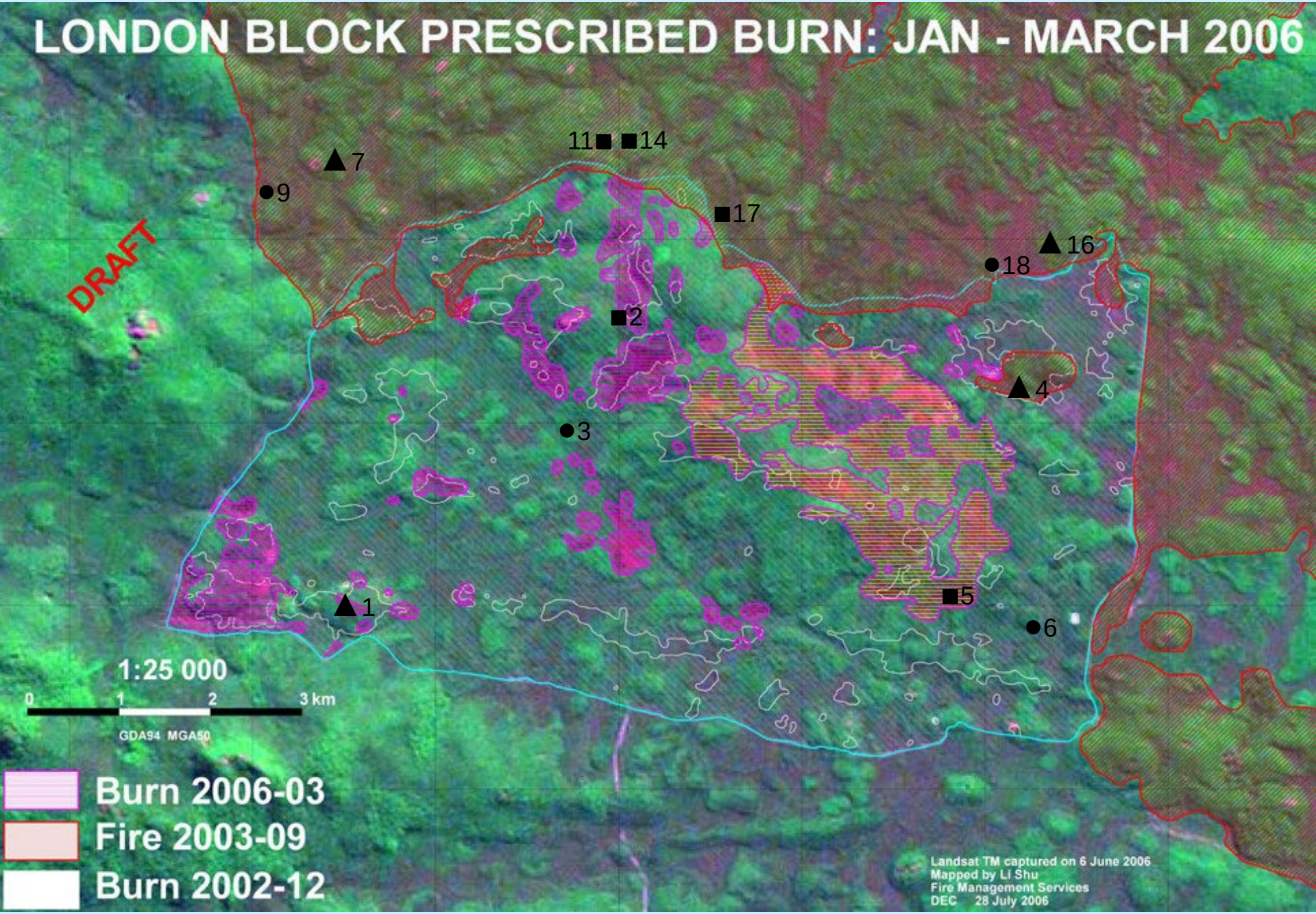

LONDON BLOCK PRESCRIBED BURN: JAN - MARCH 2006
DRAFT
11
14
7
9
17
16
18
2
4
3
1
5
6
1:25 000
0
1
2
3 km
GDA94 MGA50
Burn 2006-03
Fire 2003-09
Burn 2002-12
Landsat TM captured on 6 June 2006
Mapped by Li Shu
Fire Management Services
DEC 28 July 2006

WALPOLE FIRE MOSAIC

MACROFUNGI 2007

Richard Robinson and Julie Fielder

Why Monitor Fungi?

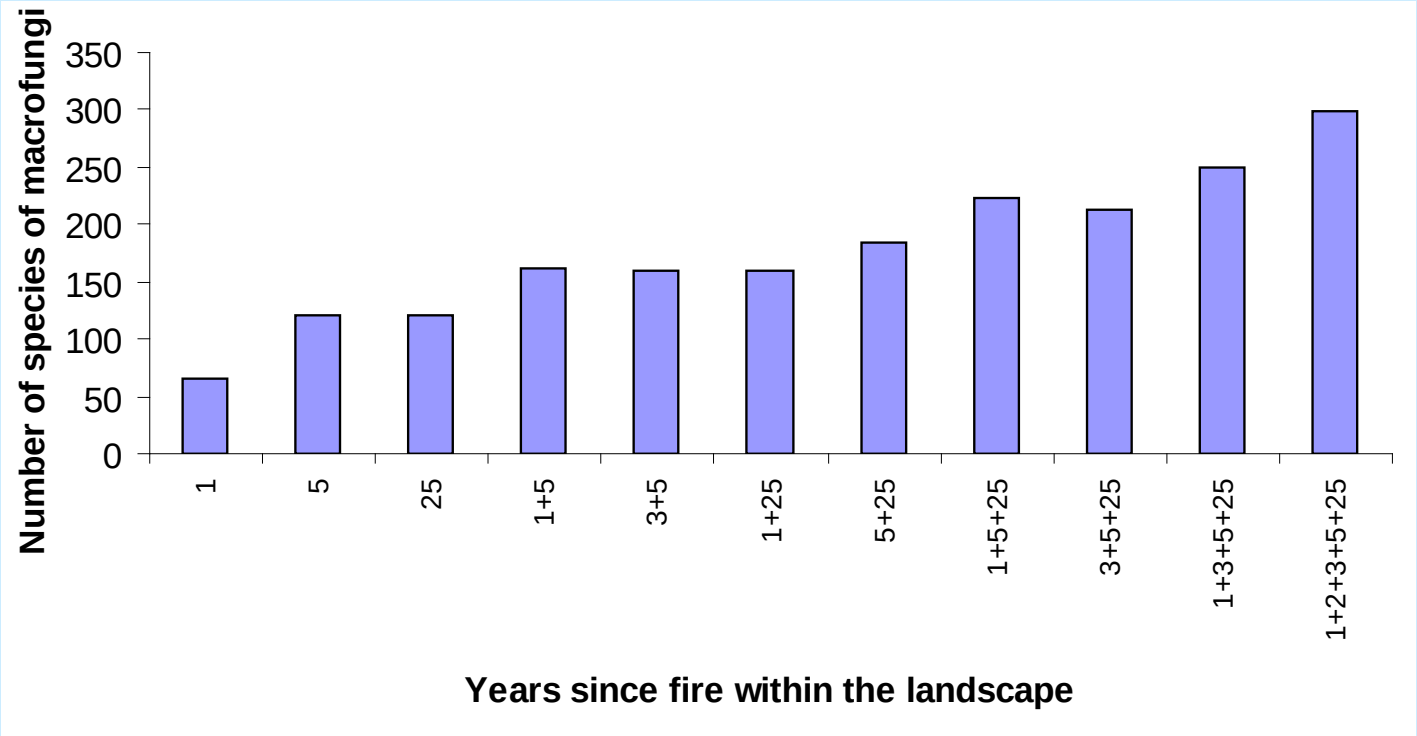
Very important in terms of both biodiversity and function:

- Thousands of species
- Soil litter and wood inhabiting species play major roles in decomposition and nutrient cycling
- Mycorrhizal species enhance nutrient uptake of plants
- Hypogeous truffle-like fungi provide an important food resource for native mammals
    - especially following fire

Knowledge of fungal diversity and the ecological roles that fungi play are therefore important considerations when Land Managers make decisions regarding Nature Conservation

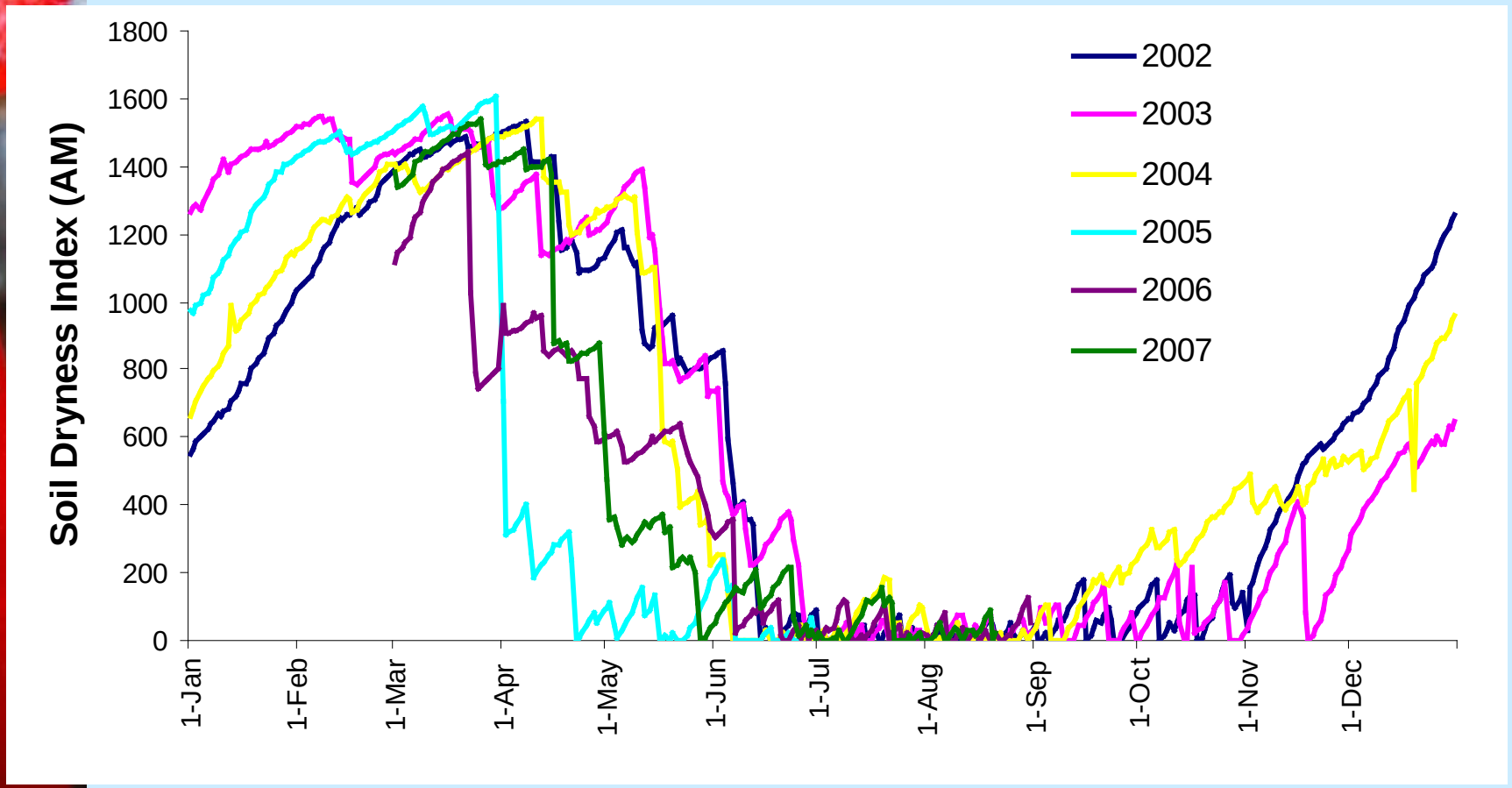
Fungi and Fire

A large number of fungi are stimulated by fire to produce fruit bodies or are only associated with recently burnt sites

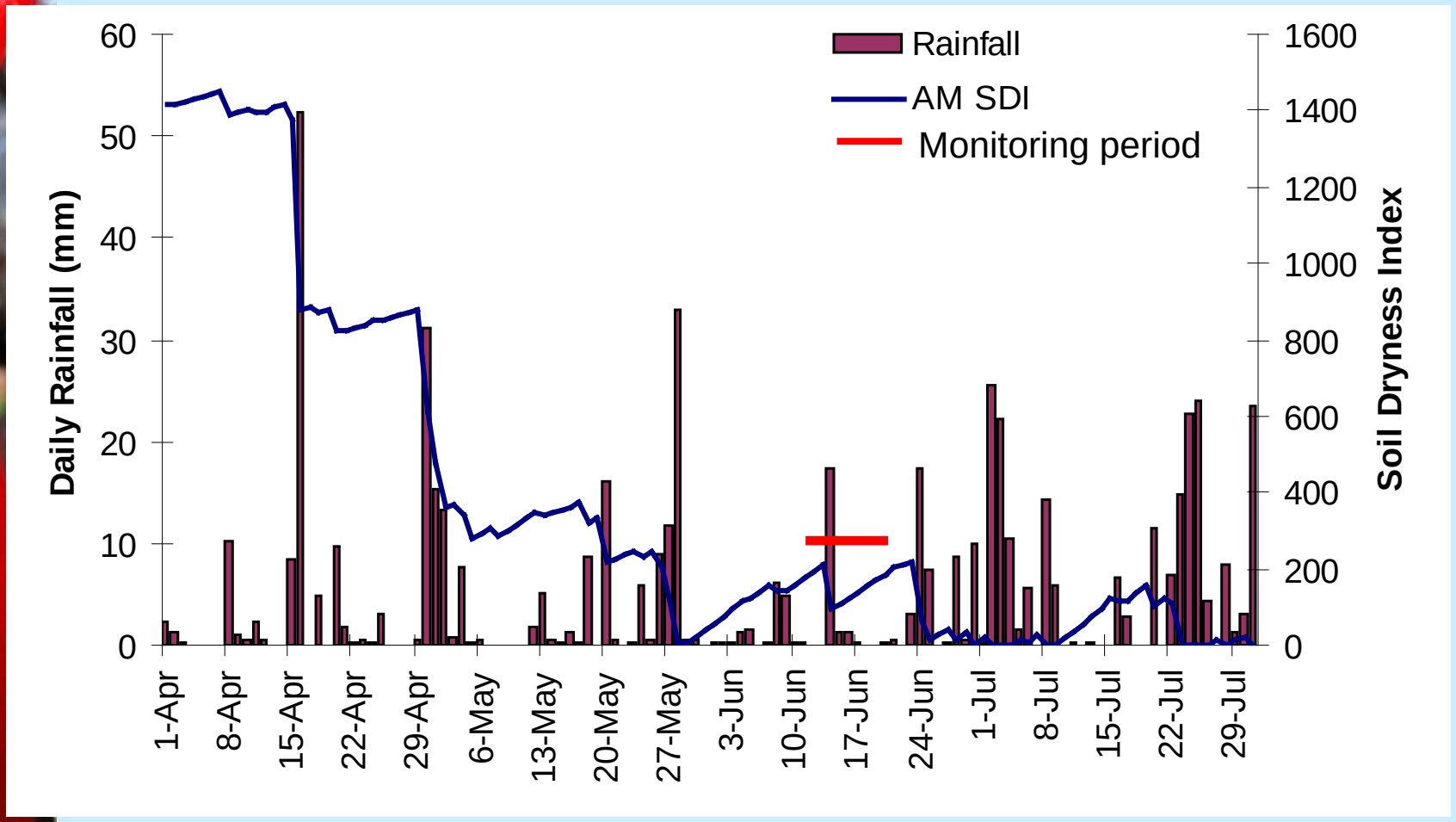


Fire can be used to enhance fungal diversity across a landscape

The challenge of when to survey?



The challenge of when to survey?



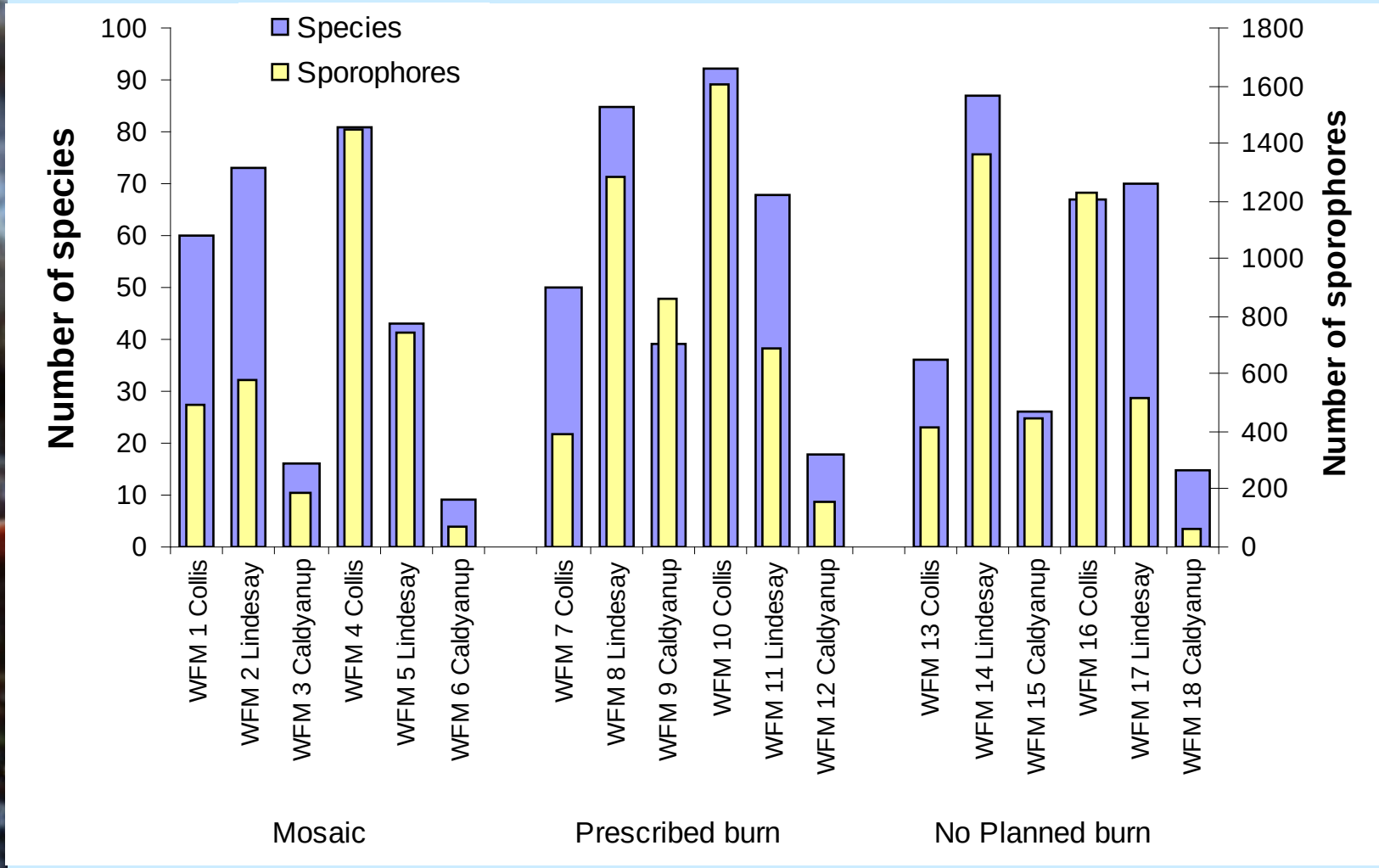
Survey results 2007

- 282 species recorded
  - 12,547 sporophores
  - 19 new species records for jarrah forest
    - Indicates we are getting a reasonably comprehensive spp. list for the area

- Total of 677 spp. recorded in FORESTCHECK, WFM and Bushfire CRC projects
  - In 2007, 41% of total spp recorded – which is excellent considering the ephemeral nature of fungi

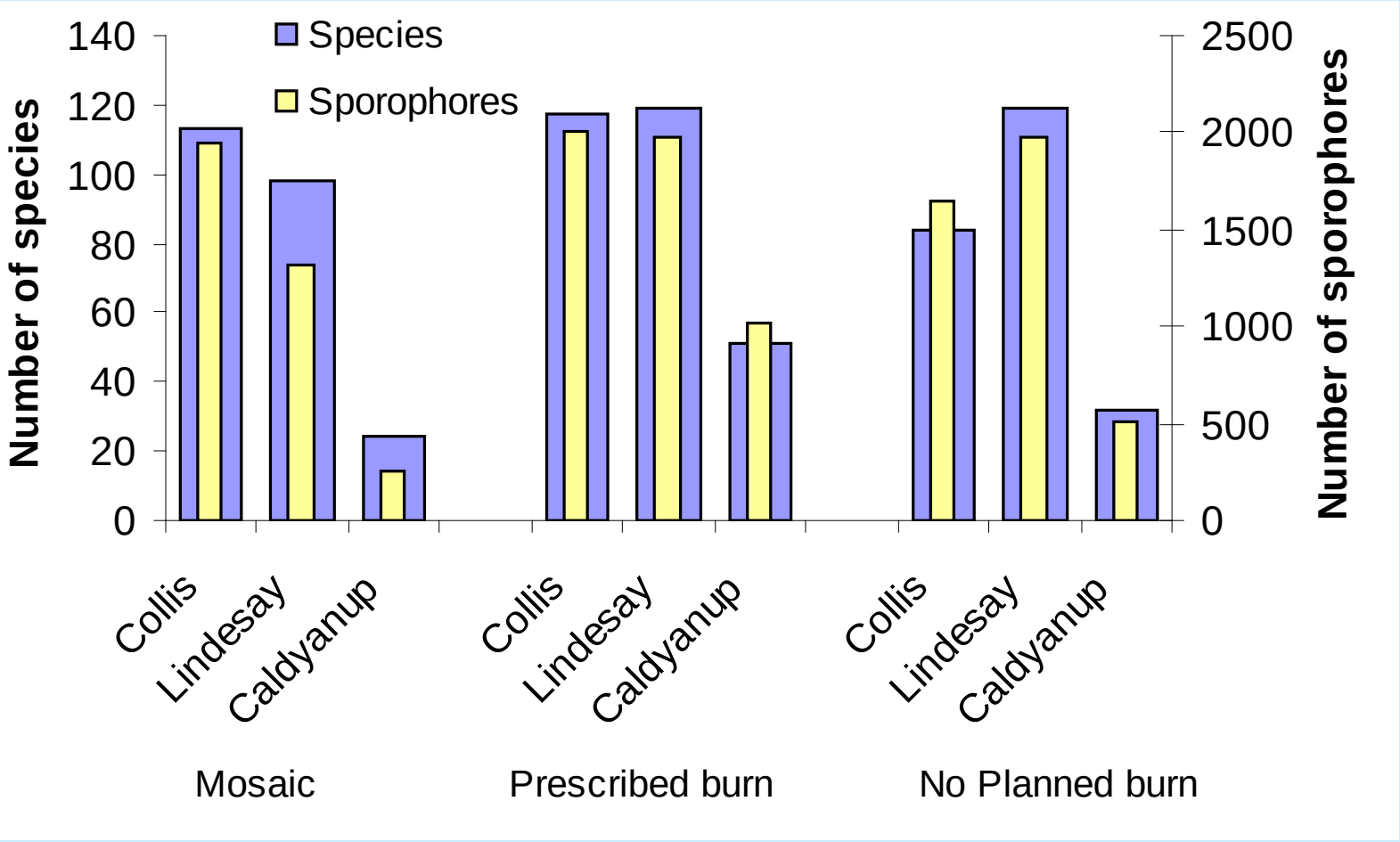
Survey results 2007

- species richness and abundance recorded in each grid in each treatment



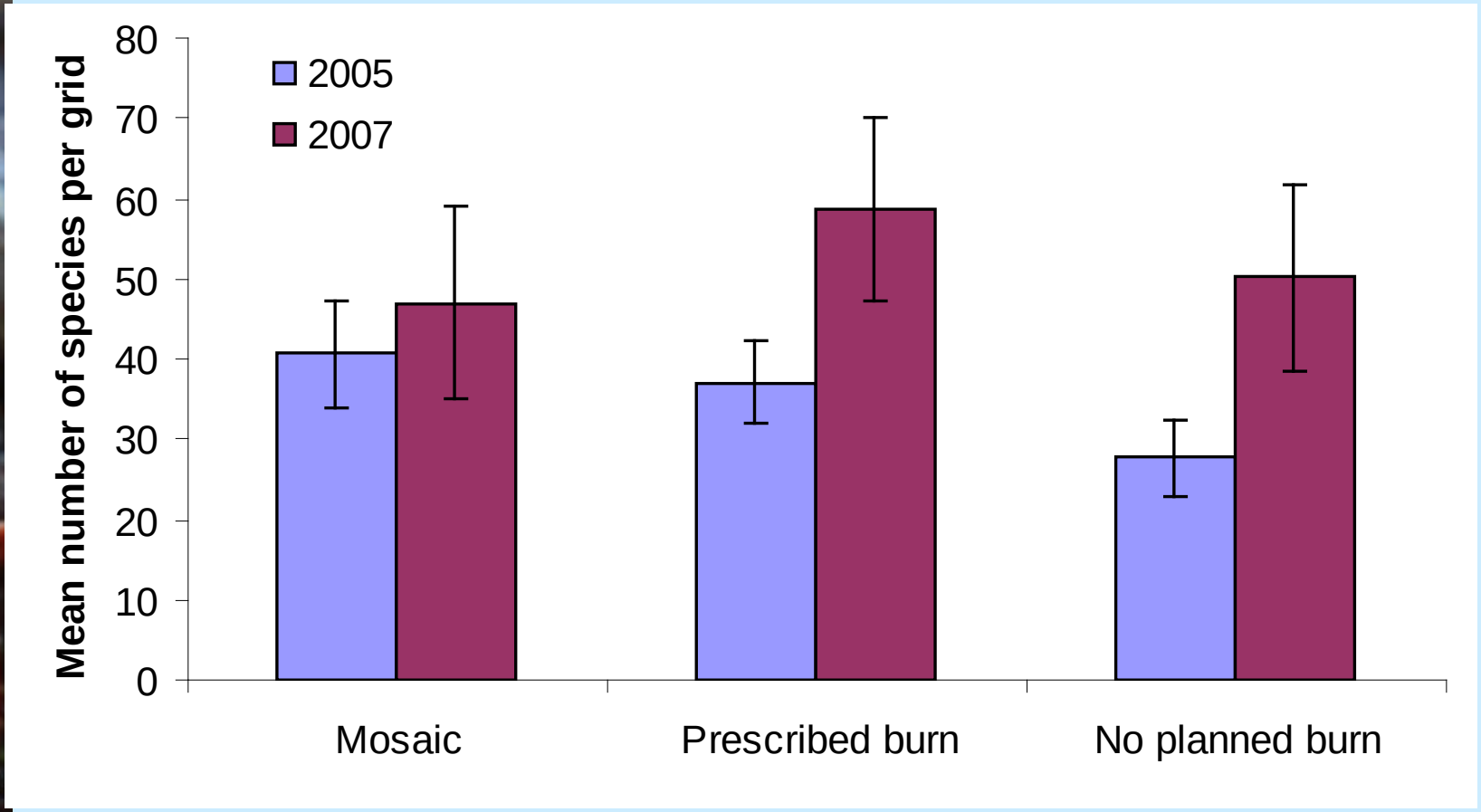
Survey results 2007

- total species richness and abundance recorded in each vegetation type in each treatment



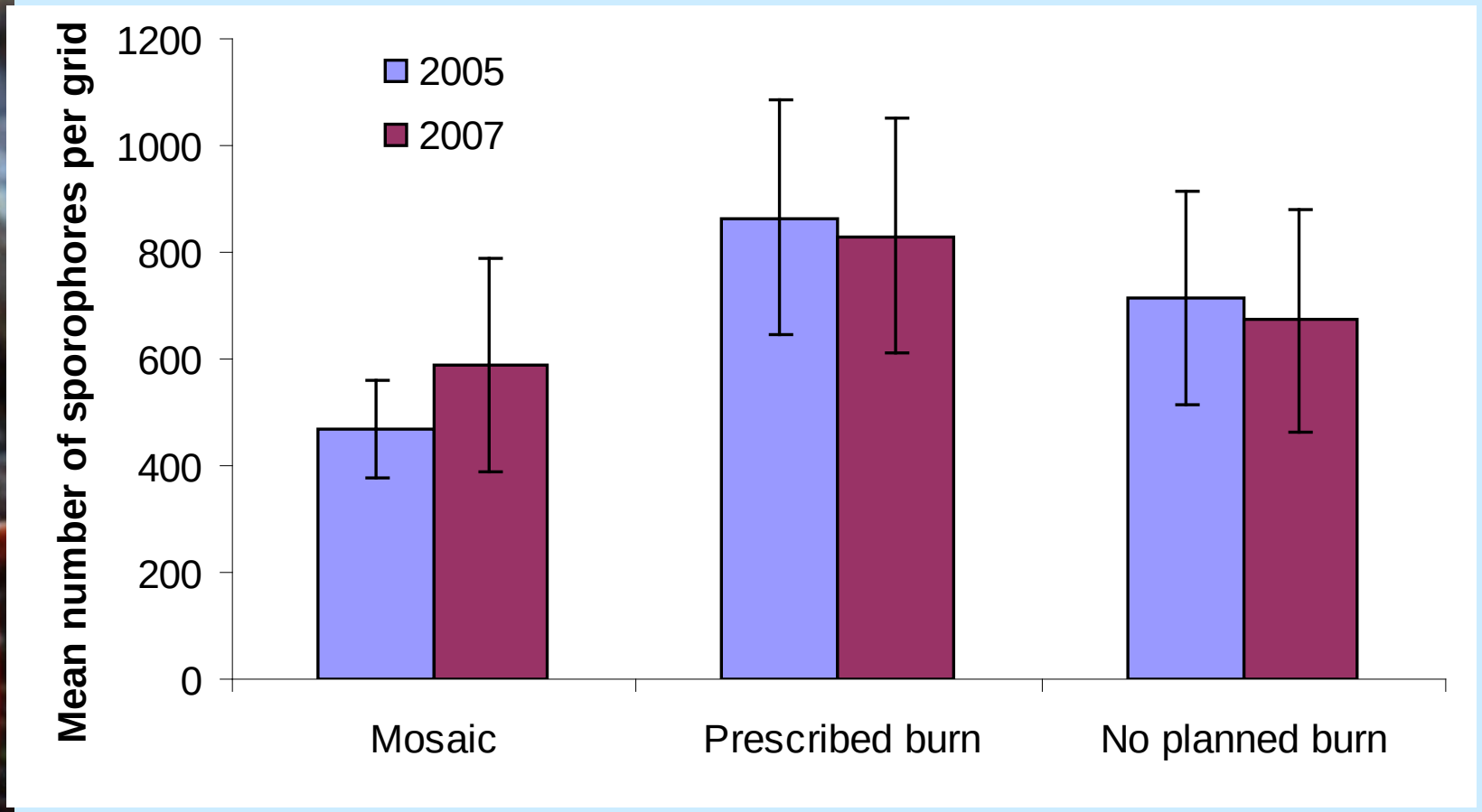
Survey results 2005-07

- mean species richness recorded in each treatment in 2005 and 2007



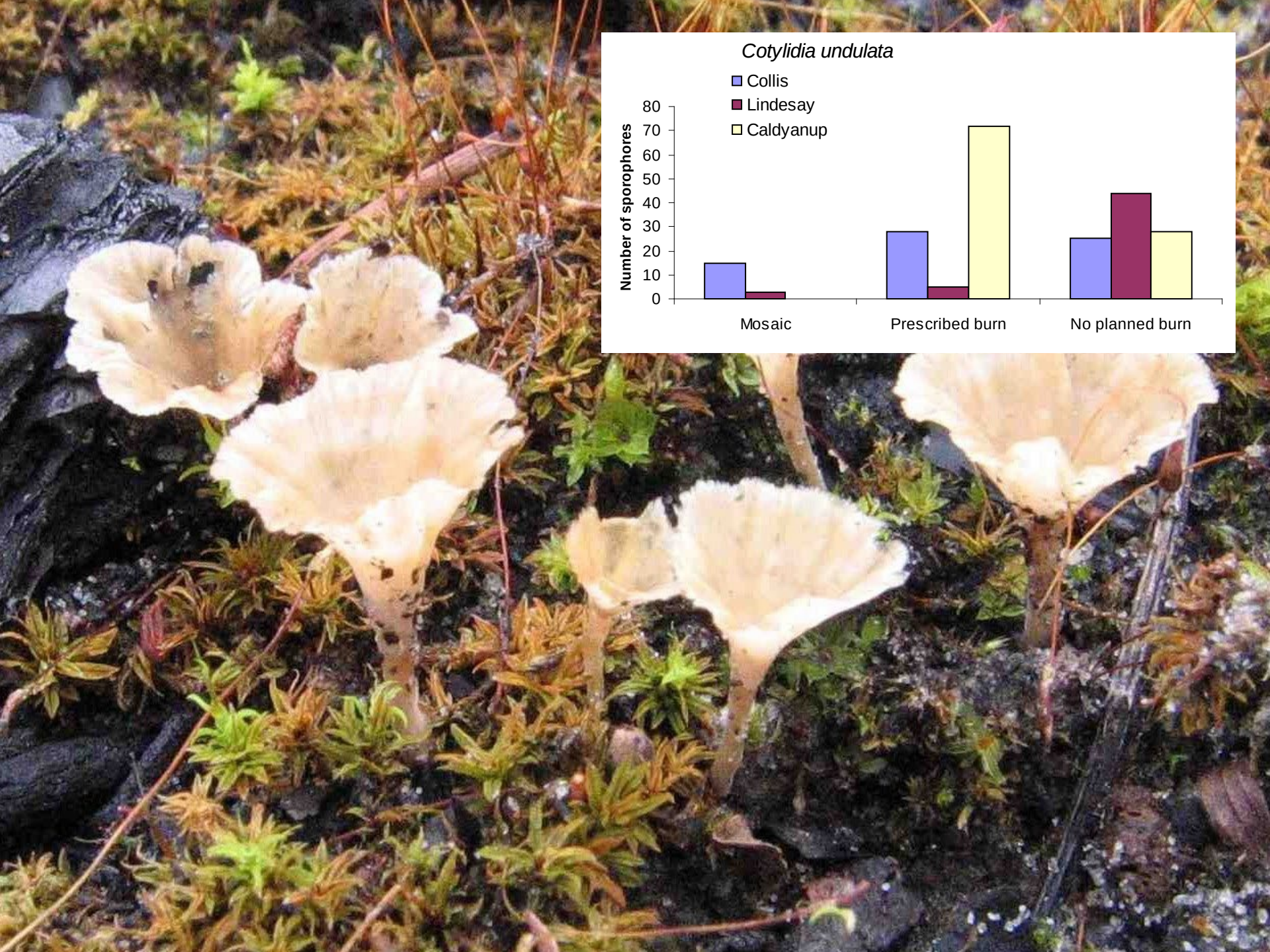
Survey results 2005-07

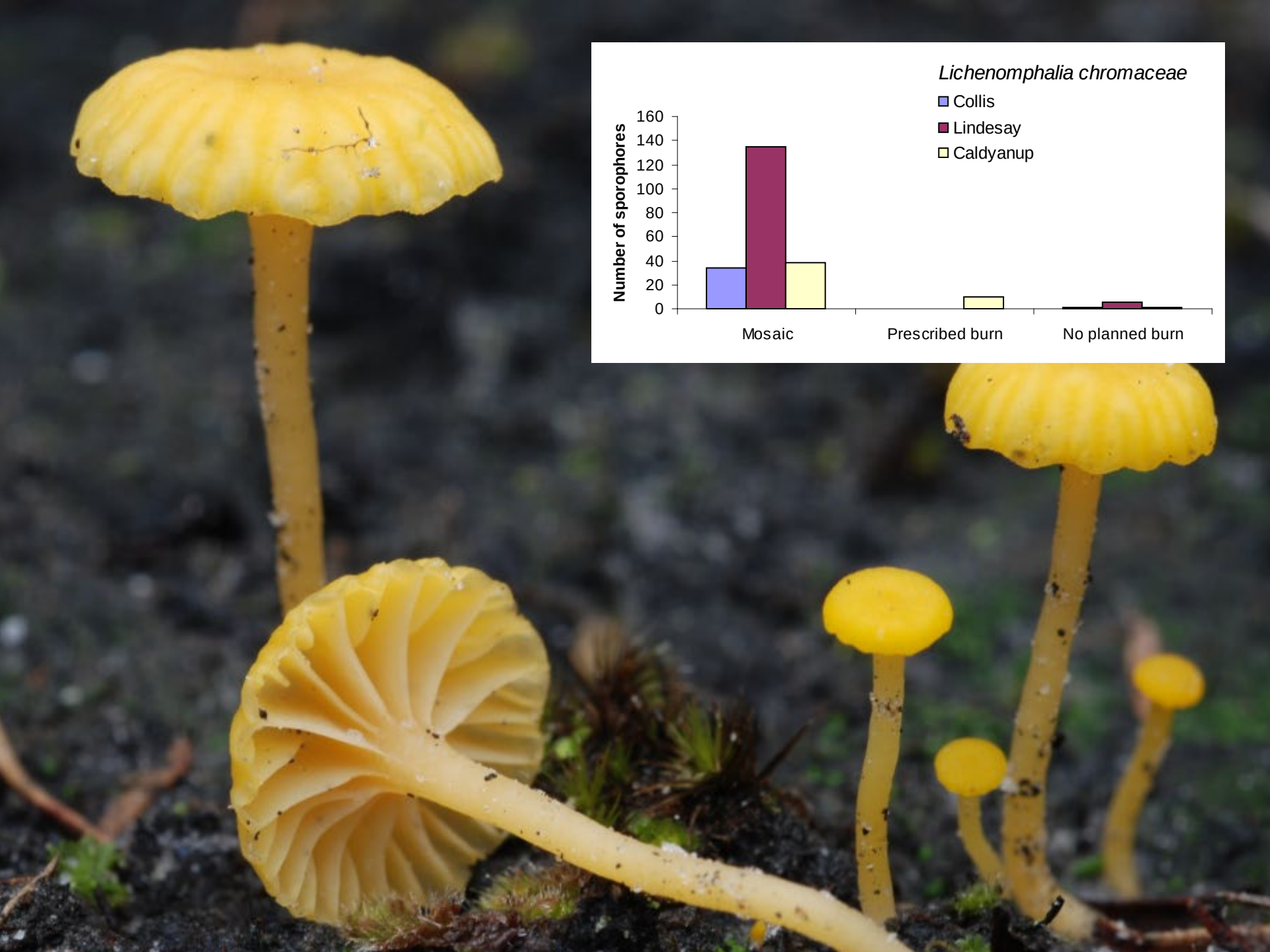
• mean species abundance recorded in each treatment in 2005 and 2007

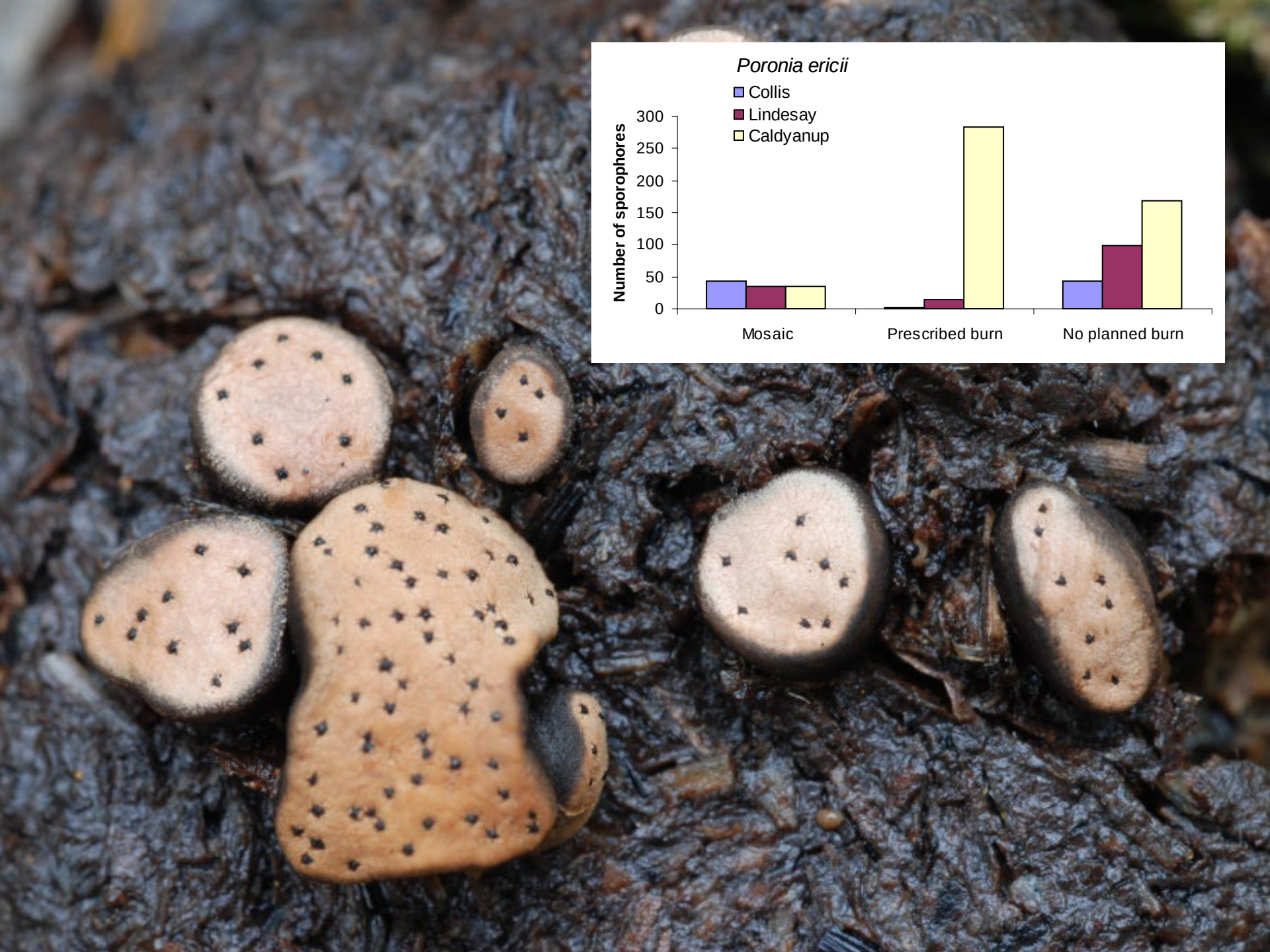


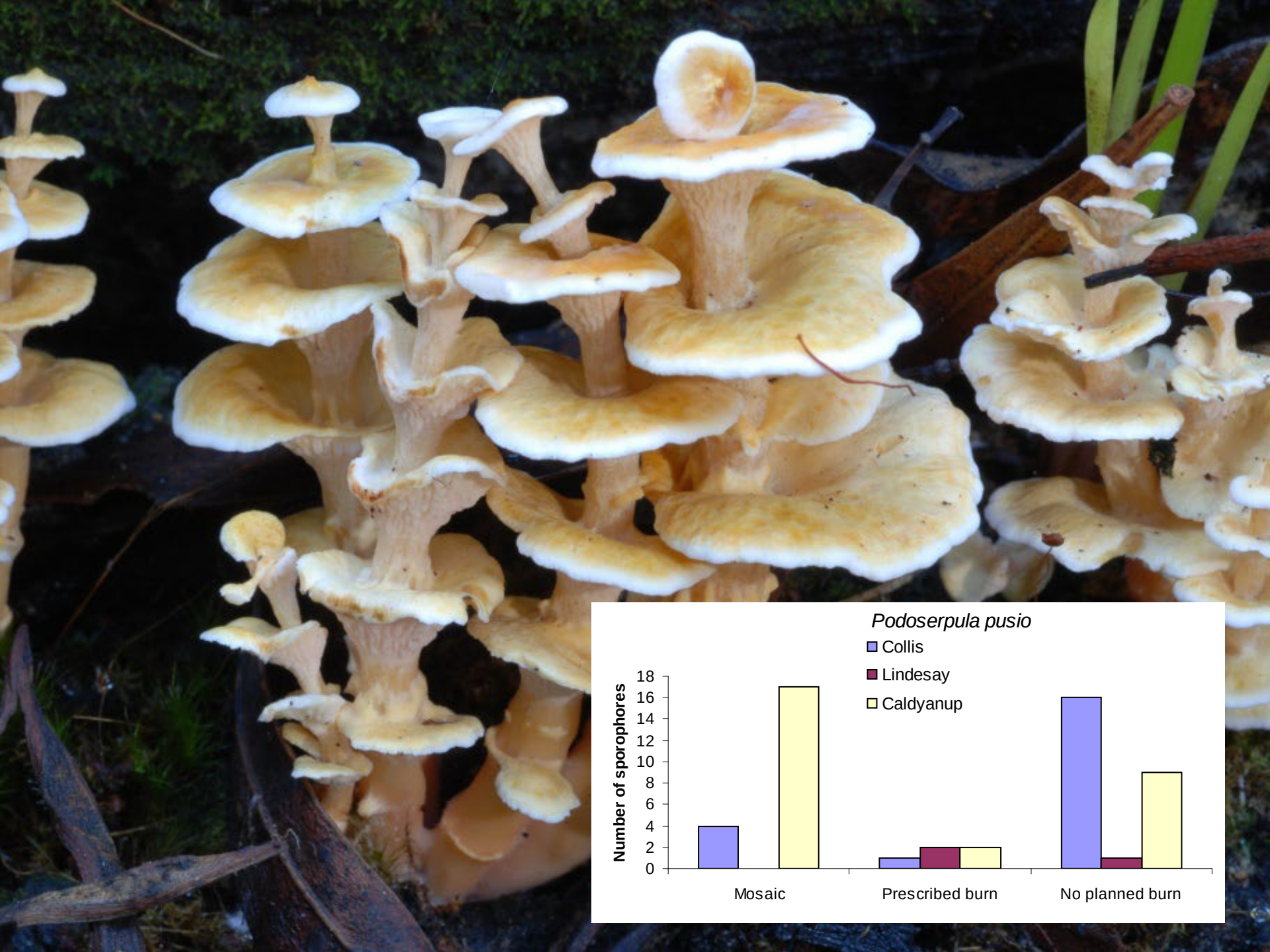
Conclusions

- Collis and Lindesay have similar total species richness
- Caldyanup has low number of species
- Burning regime does not appear to have affected mean species richness and abundance as yet
    - but - need to examine species composition
- Total species richness and abundance varies between grids in the same vegetation complex


Cotylidia undulata
Collis
Lindesay
Caldyanup
Number of sporophores
80
70
60
50
40
30
20
10
0
Mosaic
Prescribed burn
No planned burn


Lichenomphalia chromaceae
Collis
Lindesay
Caldyanup
Number of sporophores
160
140
120
100
80
60
40
20
0
Mosaic
Prescribed burn
No planned burn


Poronia ericii
Collis
Lindesay
Caldyanup
Number of sporophores
300
250
200
150
100
50
0
Mosaic
Prescribed burn
No planned burn


Podoserpula pusio
Collis
Lindesay
Caldyanup
Number of sporophores
18
16
14
12
10
8
6
4
2
0
Mosaic
Prescribed burn
No planned burn

Invertebrates – they're only substrates!


Many thanks to:
Verna Tunsell
Grant Phelan
Roy Wittkuhn