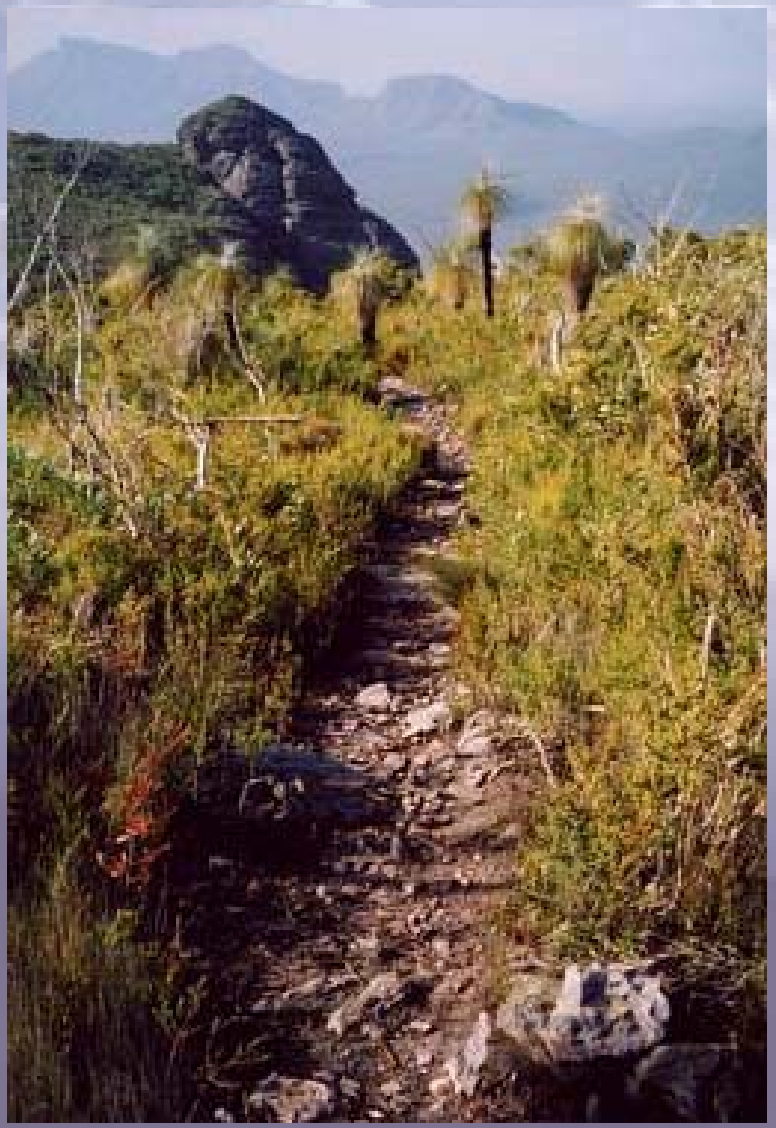


An Evaluation of the Footpaths in the Stirling Range National Park (SRNP)

Pamela Mende

An Evaluation of the Footpaths in SRNP

- Issue
- Research Objectives
- Study Site
- Research Methods
- Results
- Recommendations
- Conclusion

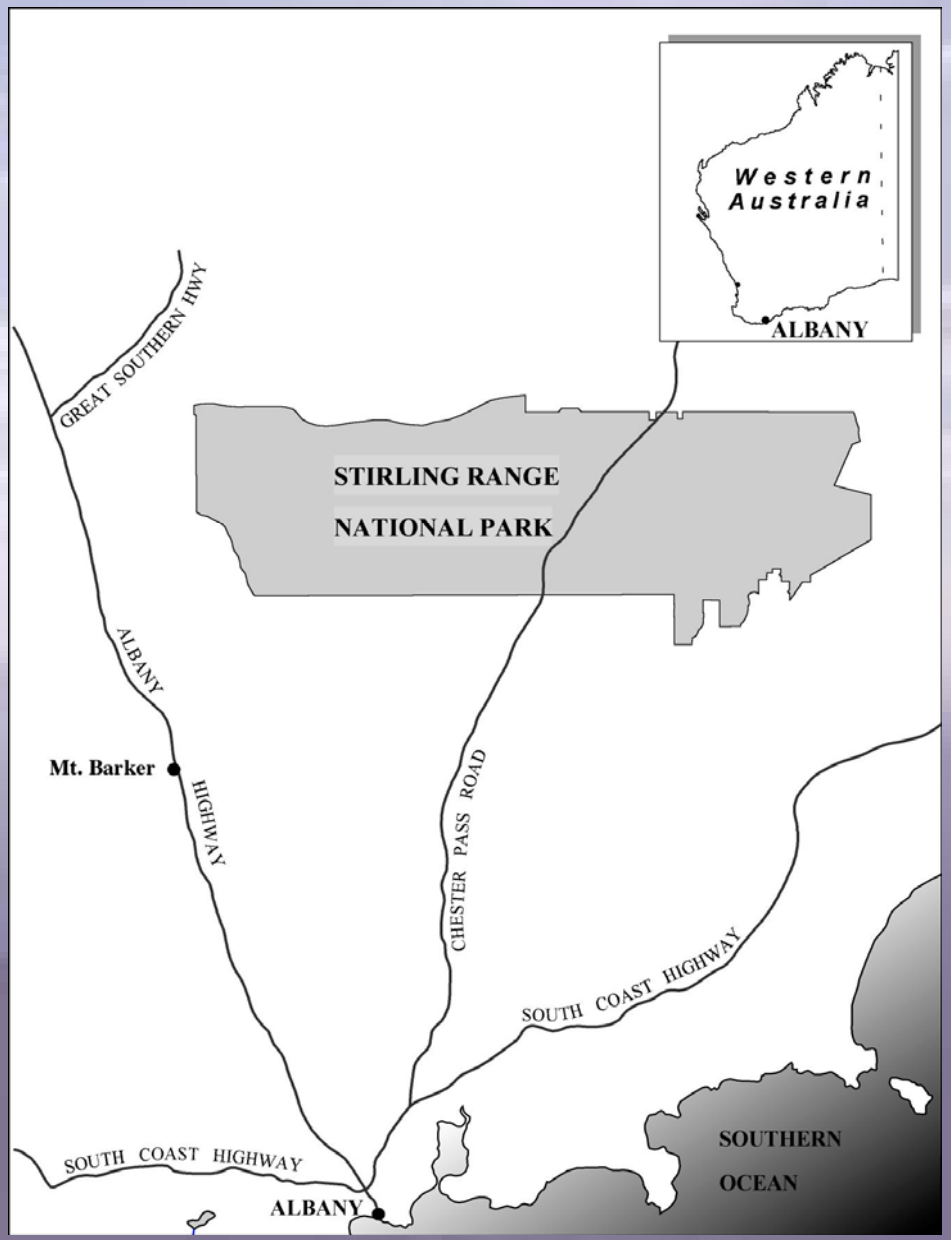
Issue

- Footpaths in the SRNP are the primary recreation resource – hiking, photography, wildflower viewing
- What condition are the footpaths in?
- How effective is footpath management?

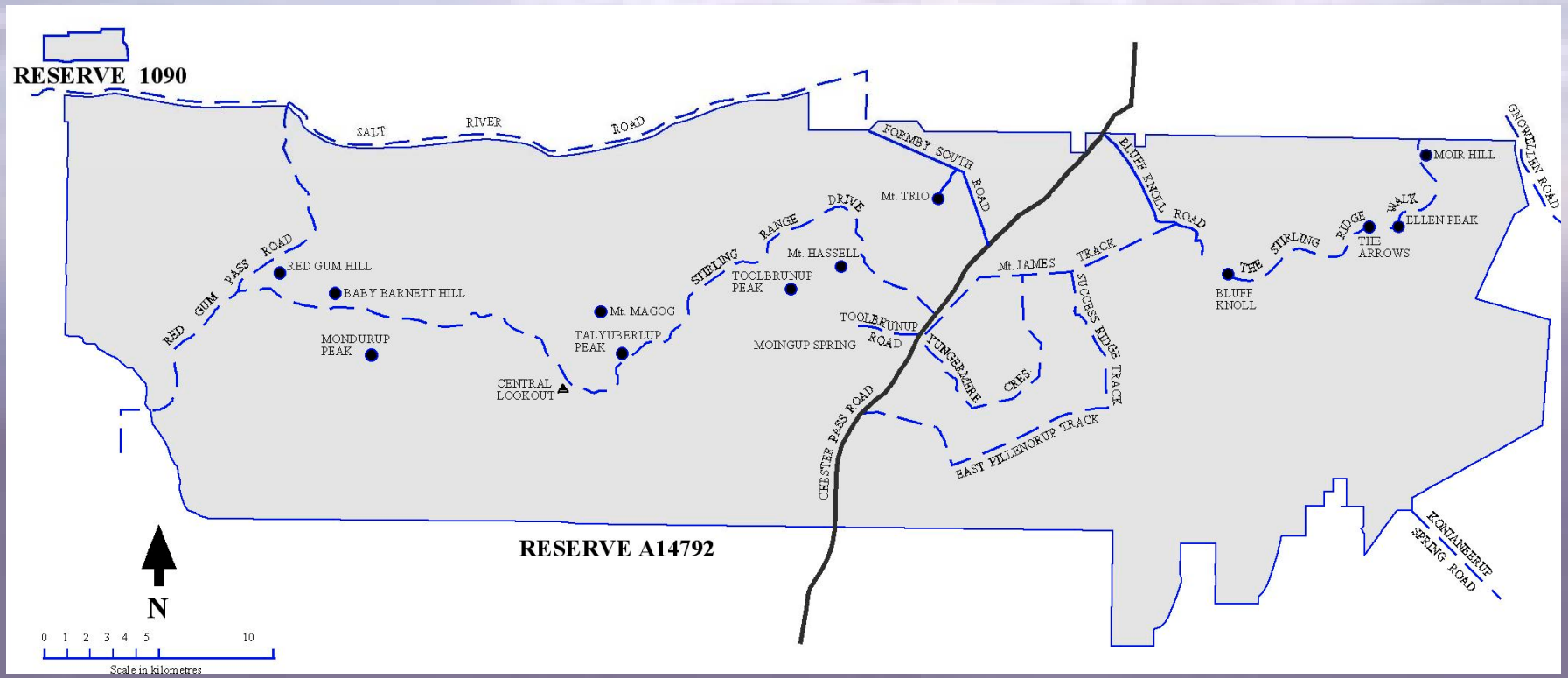
Research Objectives

- Evaluate the footpaths in the SRNP using interval sampling and a modified version of the Trail Problem Assessment Method
- Evaluate the effectiveness of footpath management
- Provide baseline information required for future path management

Study Site


Western Australia
ALBANY
GREAT SOUTHERN HWY
STIRLING RANGE
NATIONAL PARK
ALBANY
HIGHWAY
Mt. Barker
CHESTER PASS ROAD
SOUTH COAST HIGHWAY
SOUTH COAST HIGHWAY
SOUTHERN
OCEAN
ALBANY

Footpaths in SRNP



Research Methods

- Interval Sampling
- Trail Problem Assessment Method (TPAM)

- Footpaths were evaluated from the summit down to the start of the path
  - Ease of measurement
  - Time

Interval Sampling

- Measurements taken every 100 metres

- Footpath Width
- Footpath Slope
- Footpath Rockiness

Trail Problem Assessment Method

- Soil Texture
- Erosion
- Footpath Proliferation
- Excessive Width
- Exposed Roots
- Maintenance Features

- Start and finish points of soil texture and degradation indicators
- Locations of roots and maintenance features

Trail Problem Assessment Method

- **Erosion**
  - E1= Erosion Depth 5 to 10cm
  - E2= Erosion Depth 11 to 15cm
  - E3= Erosion Depth 16 to 20cm
  - E4= Erosion Depth over 20cm
- **Footpath Proliferation**
  - Location, number, length of parallel paths
- **Excessive Width**
  - Start and finish, maximum width
- **Exposed Roots**
  - Location, depth

Maintenance Features

- **Condition (1-3)**
  - **1=Good Condition:** very little or no damage, no repairs needed
  - **2=Moderate Condition:** damaged or worn, repairs are required to improve its condition
  - **3 = Poor Condition:** extremely damaged or worn, needs urgent replacement
- **Effectiveness (1-3)**
  - **1=Very Effective:** well designed and placed, very successful at managing the footpath segment.
  - **2=Moderately Effective:** fairly well designed/placed, moderately successful at managing the footpath segment.
  - **3=Ineffective:** poorly designed/placed, unsuccessful at managing the footpath segment.

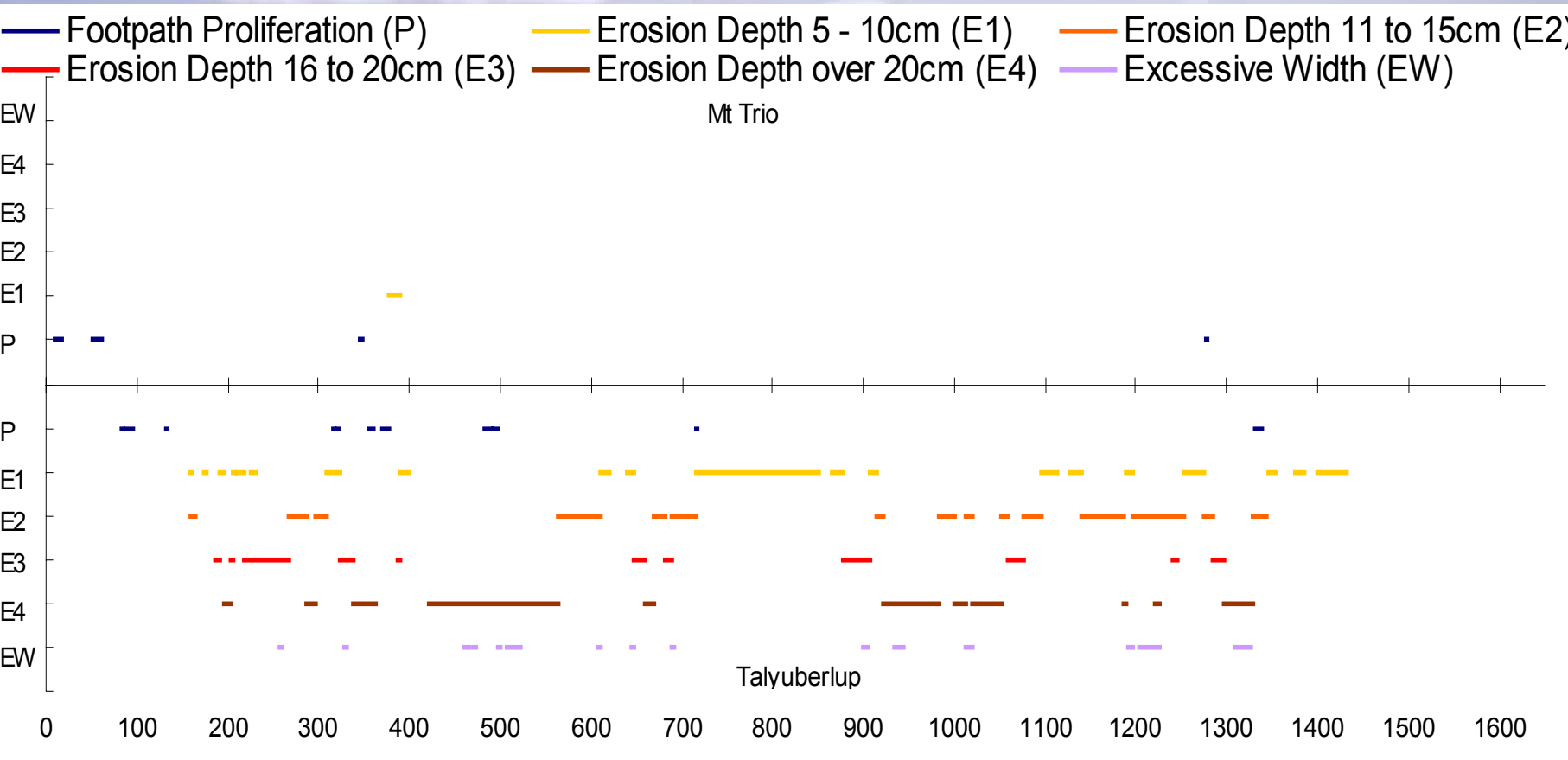
Results

- General Characteristics
- Footpath Degradation
- Footpath Maintenance
- Case Study – Mt Trio Vs Talyuberlup

General Characteristics

- **Mt Trio**
  - **Length** **1658m**
  - **Slope** **27.9°**
  - **Rockiness** **76.8%**
  - **Width** **80cm**
- Talyuberlup
  - **Length** **1473m**
  - **Slope** **38.7°**
  - **Rockiness** **59.4%**
  - **Width** **120cm**

Footpath Degradation



Mt Trio and Talyuberlup have similar characteristics and similar visitor numbers, however:

Mt Trio has 0.7% erosion, 4 extra paths

Talyuberlup has 78.1% erosion, 11 extra paths

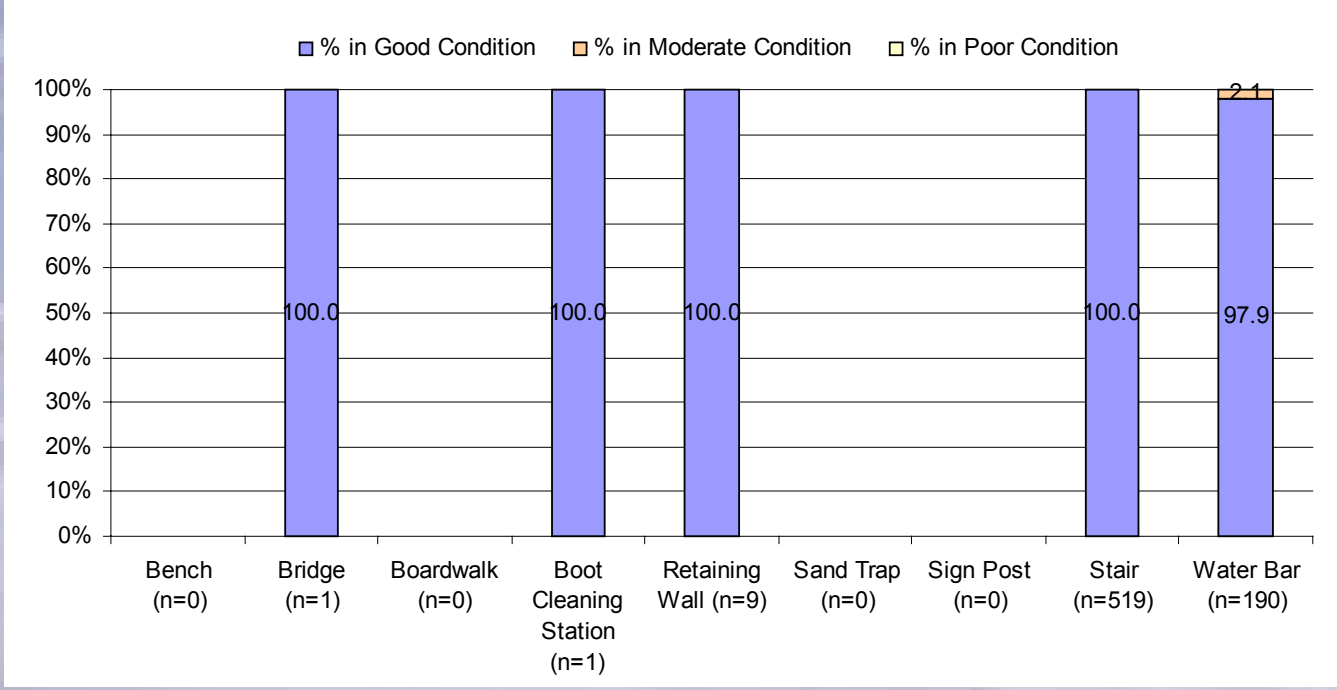
Why??

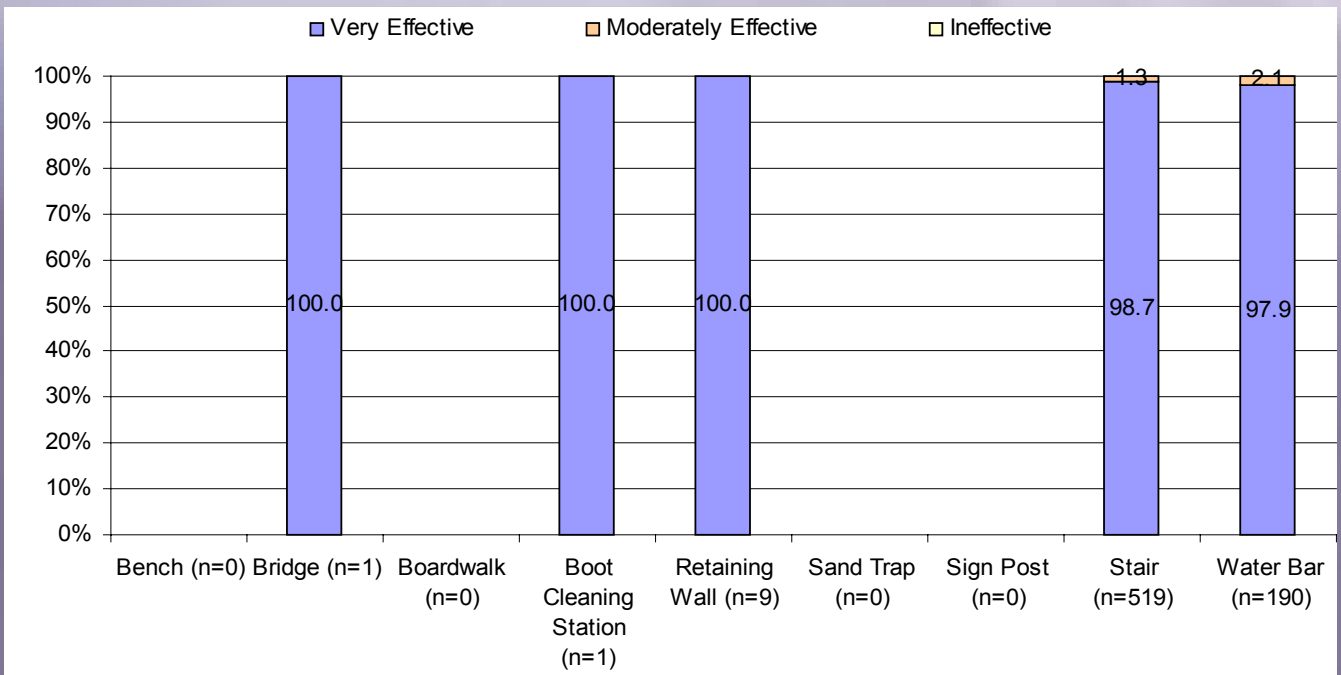
Footpath Maintenance

- Total Number
- Regular Upkeep
- Condition
- Effectiveness

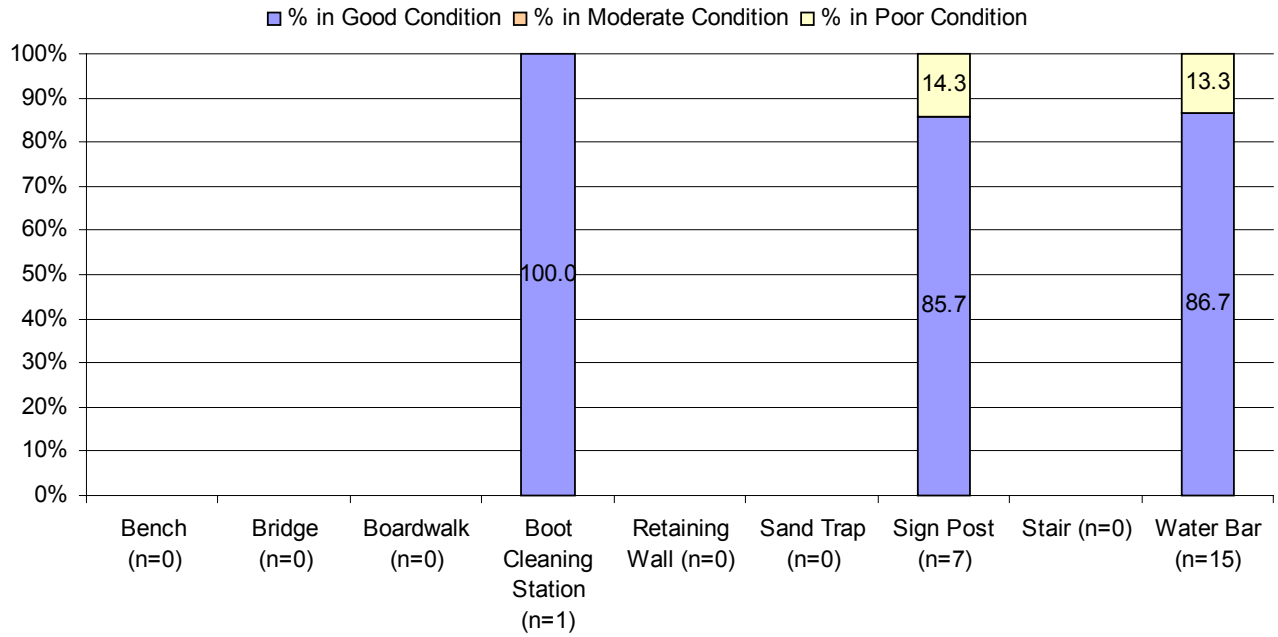
Footpath Maintenance

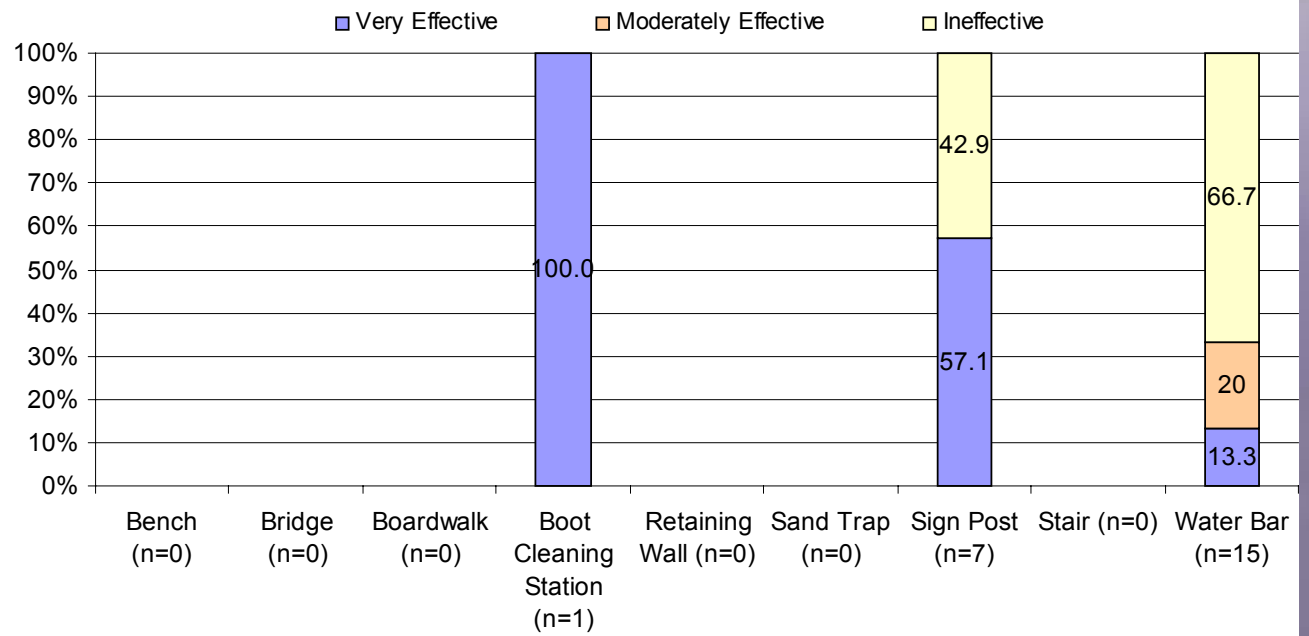
- Mt Trio
  - 725 maintenance features
  - Regular upkeep
- Talyuberlup
  - 23 maintenance features
  - Informal monitoring once a year


% in Good Condition
% in Moderate Condition
% in Poor Condition
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
100.0
100.0
100.0
100.0
97.9
2.1
Bench (n=0)
Bridge (n=1)
Boardwalk (n=0)
Boot Cleaning Station (n=1)
Retaining Wall (n=9)
Sand Trap (n=0)
Sign Post (n=0)
Stair (n=519)
Water Bar (n=190)


Very Effective
Moderately Effective
Ineffective
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
100.0
100.0
100.0
98.7
97.9
1.3
2.1
Bench (n=0)
Bridge (n=1)
Boardwalk (n=0)
Boot Cleaning Station (n=1)
Retaining Wall (n=9)
Sand Trap (n=0)
Sign Post (n=0)
Stair (n=519)
Water Bar (n=190)

Mt Trio





Talyuberlup

Is Current Management Effective?

Mt Trio

Talyuberlup

Short Term Recommendations

- Visitor Data
- Short Term Solutions

Mt Trio:

- Continue with regular upkeep of maintenance features

Talyuberlup:

- Heavy engineering to stabilize path
- Signposting
- Regular upkeep of maintenance features

Long Term Recommendations

- Footpath monitoring system
- Regular maintenance program
- Increase resources for footpath management

Conclusion

- Footpaths are the primary recreation resource in the Stirling Range National Park
- Footpath condition varies greatly
- Sufficient maintenance and regular upkeep can maintain good footpath condition
- Footpaths in good condition provide safe and enjoyable experiences for visitors

Back to the Forum