Total vegetation cover soil protection
Region:NRM Riverina NSW   Date: August 2020

This report describes vegetation protecting the soil surface from erosion during a chosen month compared to previous years. This report has been generated using MODIS fractional vegetation cover information available in Rangelands and Pasture Productivity (RAPP) map tool https://map.geo-rapp.org/#australia. The report is based on 500 metre pixel data on monthly time steps.
Land use forest cover:

Results can be shown for the whole region (polygon), and separated by land use and forest cover classes which are likely to show different cover patterns and targets. Land use is divided into four broad classes: Conservation and natural environments, Agriculture, production native forests and plantation forests (no report), and other (no report). Agriculture is divided into grazing, crops and horticulture which are sub-divided into non-irrigated and irrigated. If forest is present land use is further divided into: non-forest, woodland forest and non-woodland forest. The area of each land use and forest class are shown as a map and chart. The report content is repeated for each land use and forest cover class that covers at least 1% of the area of the chosen region.
Total vegetation Cover:

The total vegetation cover indicates where soil is likely to be protected from wind and or water hillslope erosion. Total vegetation cover for this month is shown on a map and chart classified into 4 classes.
   • 71-100% High cover – protected from wind and usually water erosion (high rainfall, steep
slopes, and erodible soils may need greater than 80, 90, 95 and up to 100% cover)
   • 51-70% Moderate cover – protected from wind erosion
   • 31-50% Low cover – not protected
   • 0-30% Very Low cover – not protected
Erosion protection: Wind erosion 50% total vegetation cover

The vegetation cover threshold required to prevent soil erosion is usually 50% to reduce wind erosion, 70% or 80% to reduce water (hillslope) erosion depending on the steepness and rainfall. Areas protected from erosion for the month:
   • Map: water erosion protection (>70% cover) percentage area and hectares.
   • Map: wind erosion protection (>50% cover) percentage area and hectares.
Comparison with previous years:

   • Map: anomaly comparing this month to the average cover from the same month in previous years.
   • Map: deciles rank of month against the same month in previous years.
Anomalies and deciles until September 2019 are calculated comparing to the same months 2001 to 2019. Extra monthly data will be used to calculate anomalies and deciles post September 2019 as they become available.
Time series monthly from January 2001 to current:

Erosion protection
   • Wind erosion protection time series: percentage of the area of the region with greater than 50% cover for
     each month (orange lines). Horizontal lines are 10th (cover target) and 50th percentiles.
   • Water erosion protection time series: percentage of the area of the region with greater than 70% cover for
     each month (blue line). Horizontal lines are 10th (cover target) and 50th percentiles.
Rainfall
   • Millimetres rainfall each month (black line).
Each time series is also stacked by year. The black line shows the current year of data.
Water erosion protection for higher rainfall and steeper slopes:

Water erosion protection on higher slopes. As slope increases, more cover is required to control water erosion. The thresholds reported are:
   • the percentage area with pixels greater than 80% total cover.
   • the percentage area with pixels greater than 90% total cover.
   • the percentage area with pixels greater than 95% total cover.

Acknowledgment of data:

1. http://www.agriculture.gov.au/abares/aclump/land-use/alum-classification

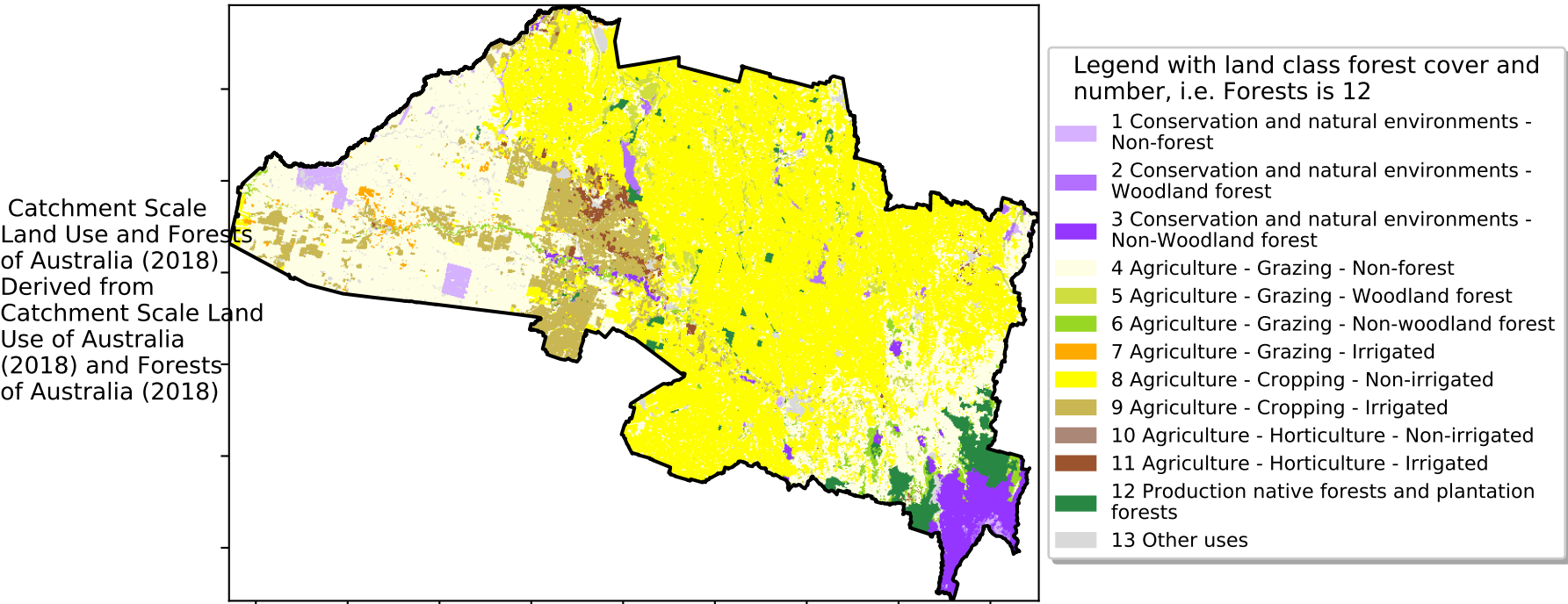2. http://www.agriculture.gov.au/abares/forestsaustralia/sofr/sofr-2018

3. https://www.dpi.nsw.gov.au/agriculture/pastures-and-rangelands/establishment-mgmt/production-management2/groundcover

4. MODIS Fractional cover algorithm:

   https://doi.org/10.4225/08/5848a3f19a7b3
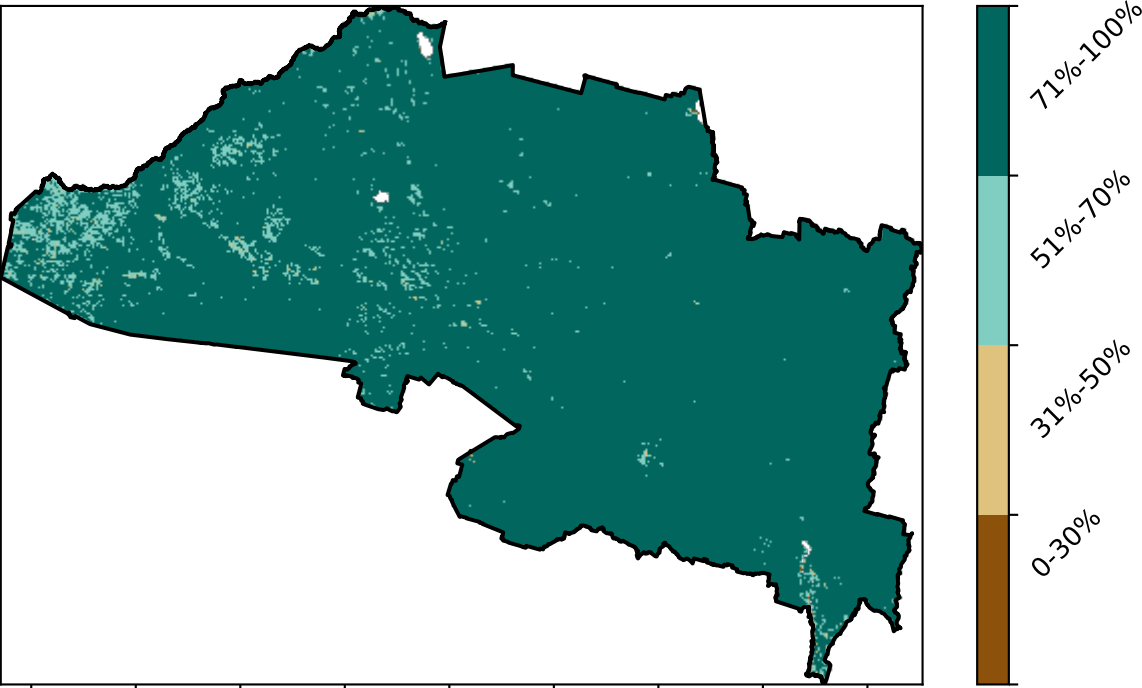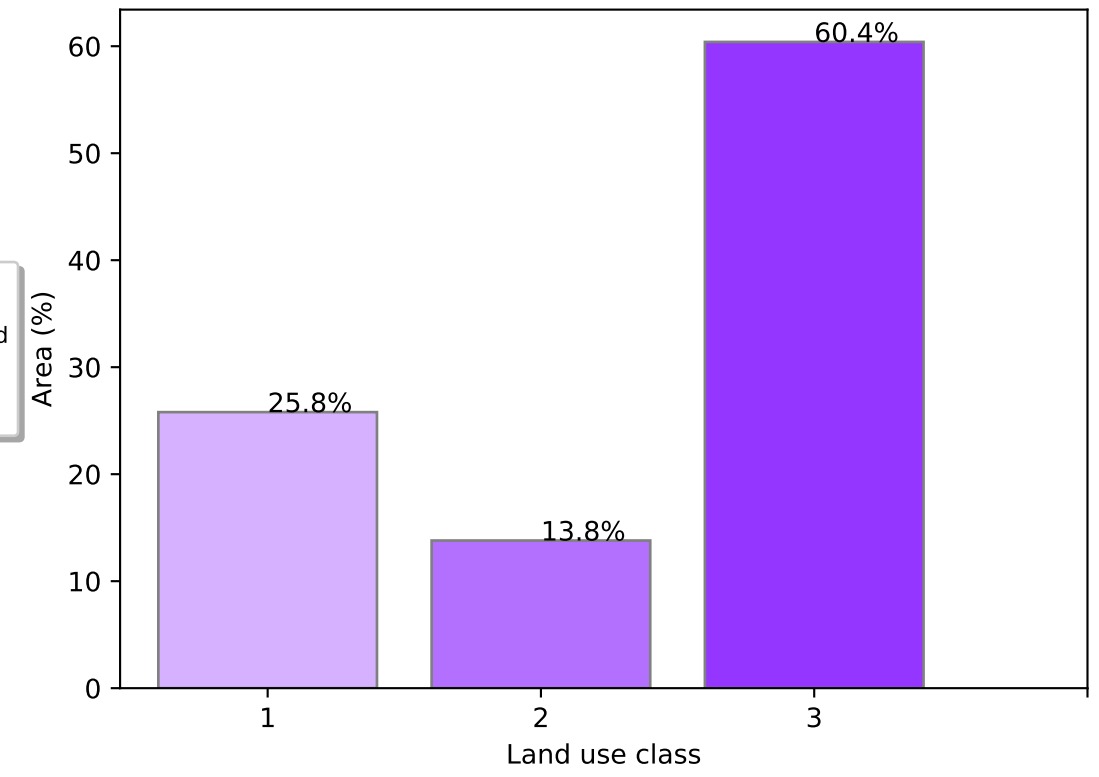
Vegetation Cover Aug 2020

Land use and forest cover

Catchment Scale Land Use and Forests of Australia (2018). Derived from Catchment Scale Land Use of Australia (2018) and Forests of Australia (2018)

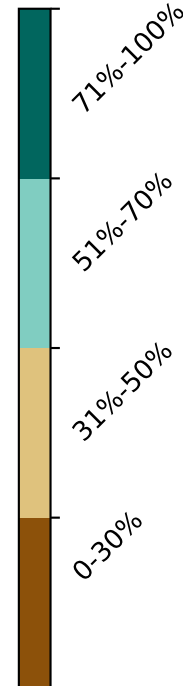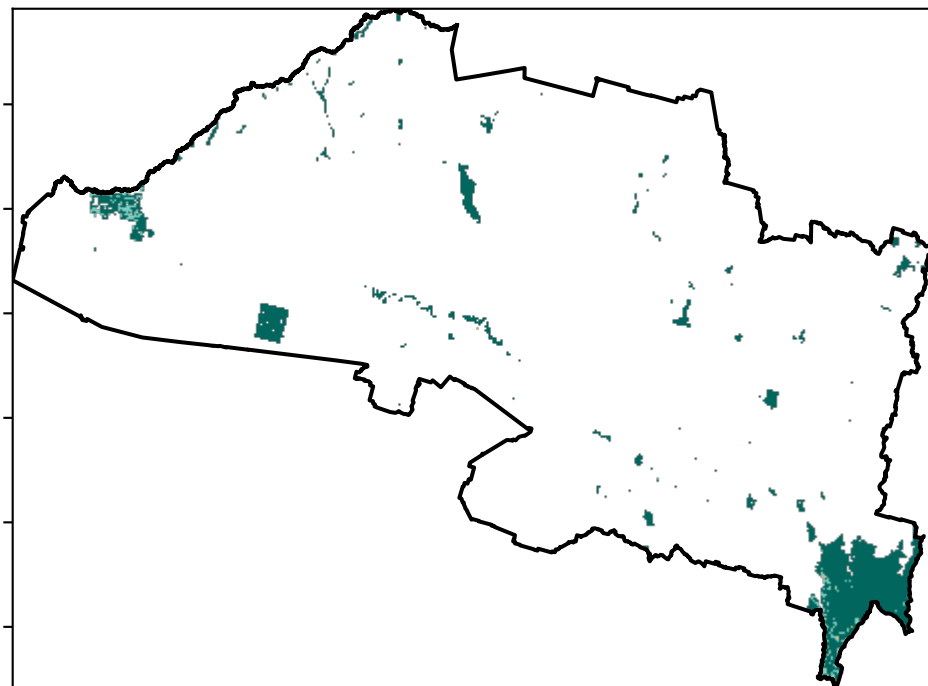Legend with land class forest cover and number, i.e. Forests is 12
- 1 Conservation and natural environments - Non-forest
- 2 Conservation and natural environments - Woodland forest
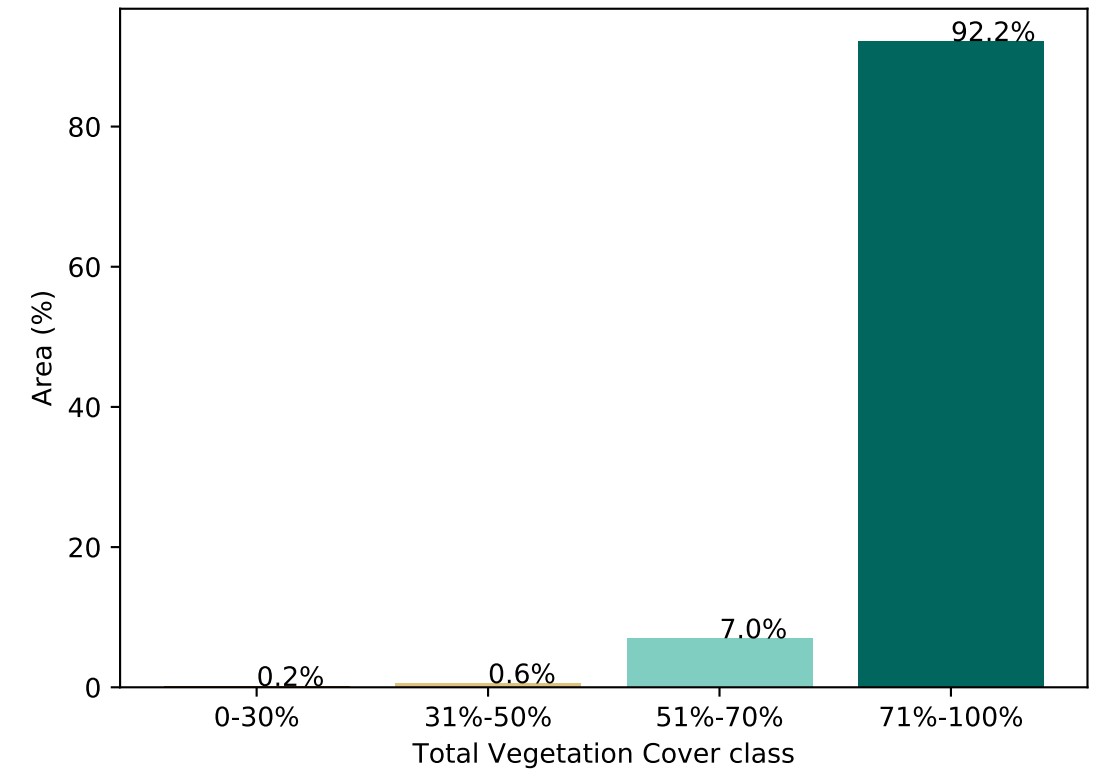- 3 Conservation and natural environments - Non-Woodland forest
- 4 Agriculture - Grazing - Non-forest
- 5 Agriculture - Grazing - Woodland forest
- 6 Agriculture - Grazing - Non-woodland forest
- 7 Agriculture - Grazing - Irrigated
- 8 Agriculture - Cropping - Non-irrigated
- 9 Agriculture - Cropping - Irrigated
- 10 Agriculture - Horticulture - Non-irrigated
- 11 Agriculture - Horticulture - Irrigated
- 12 Production native forests and plantation forests
- 13 Other uses

Proportion of each land class in area
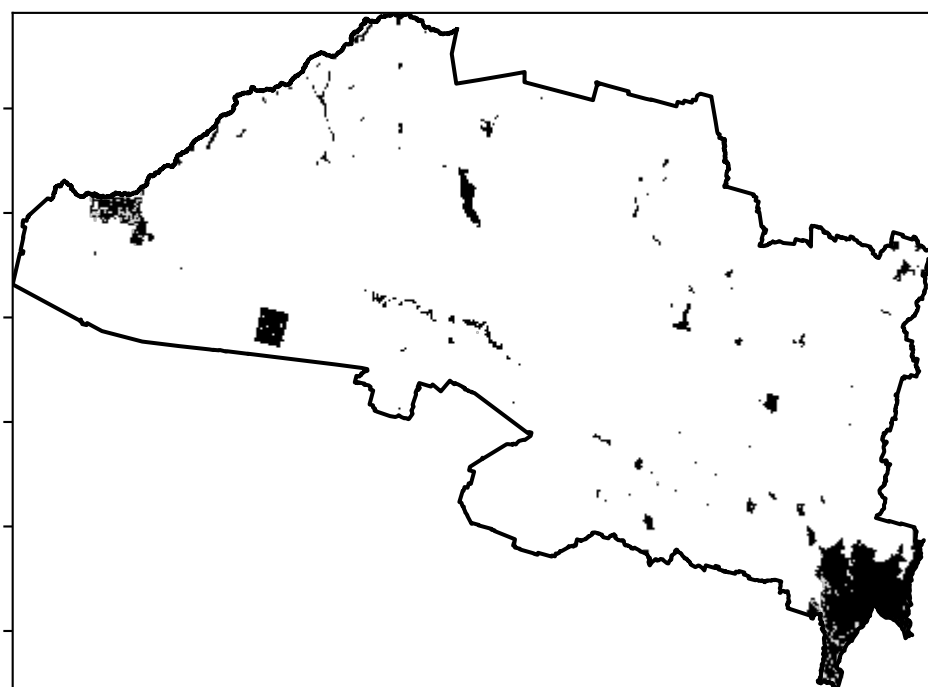

Total Vegetation Cover [%]

## Proportion of vegetation cover class in area

% Area protected from water erosion (>70%)

Area not protected 3.9% of region (261,138 ha)
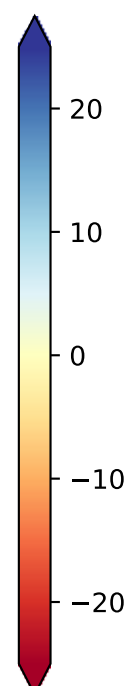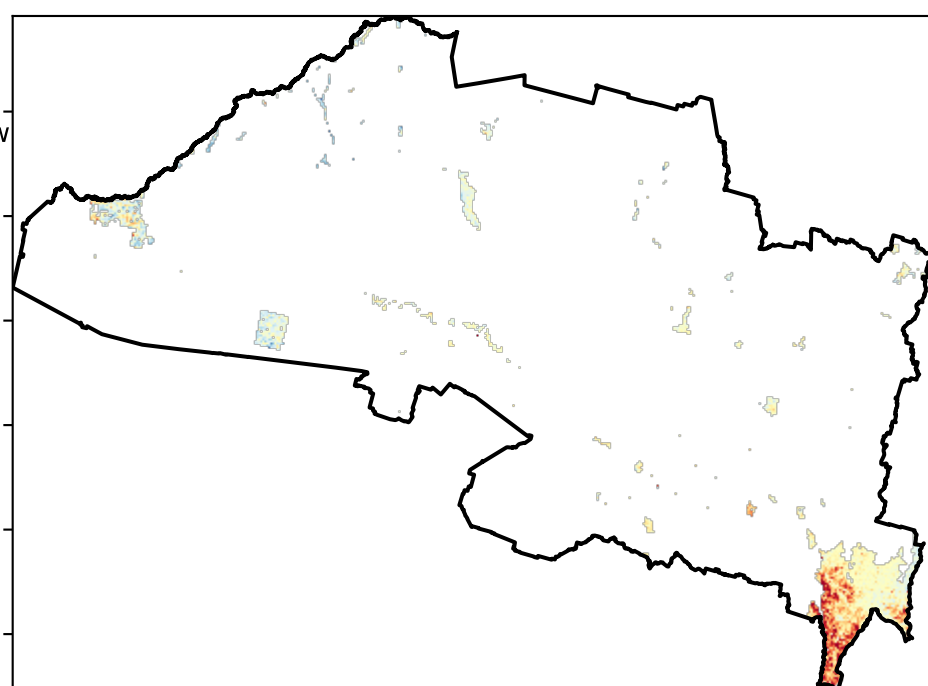
Area protected 96.1% of region (6,434,711 ha)

% Area protected from wind erosion (>50%)

Area not protected 0.0% of region (0 ha)
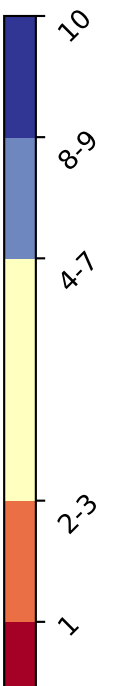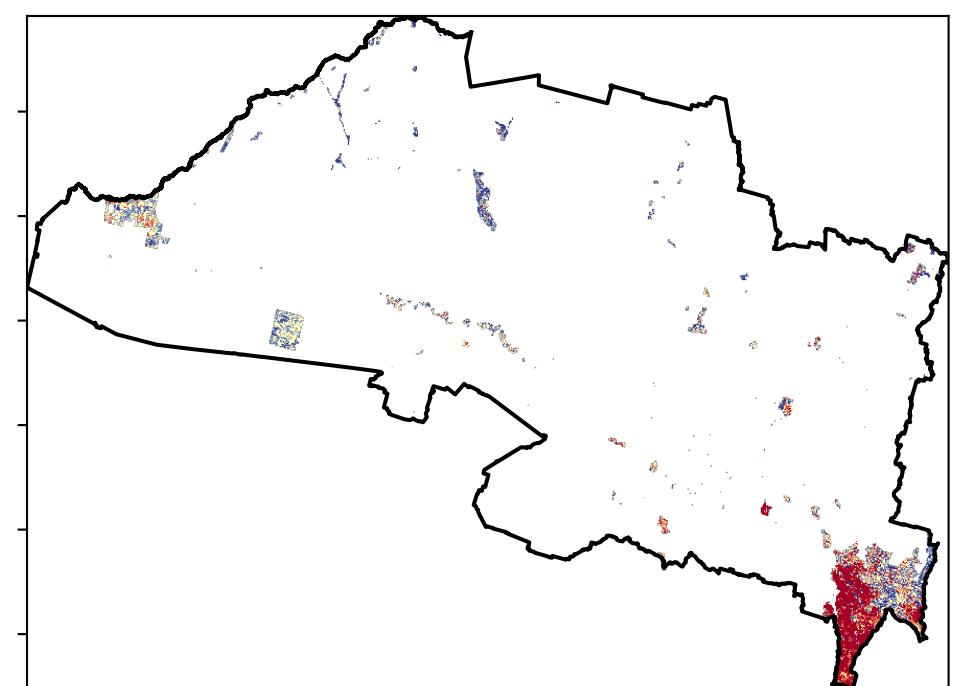
Area protected 100.0% of region (6,695,850 ha)

Total Vegetation Cover Anomaly [%]

Anomaly show how many percetage points each pixel is from the mean. That is, red pixels are about 20% lower than the mean of that pixel. The mean is only for the month of the map using baseline from 2001 to 2019.
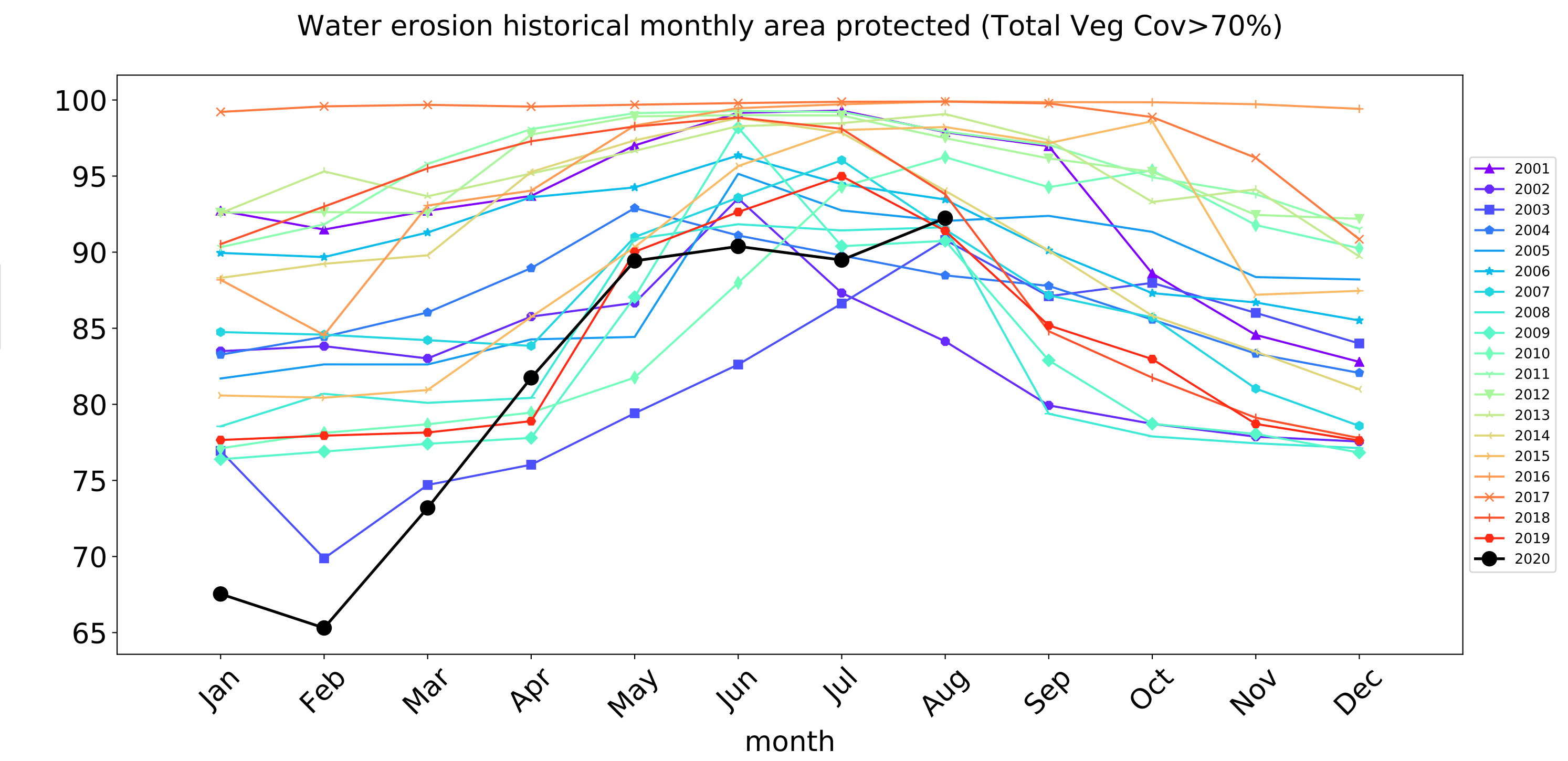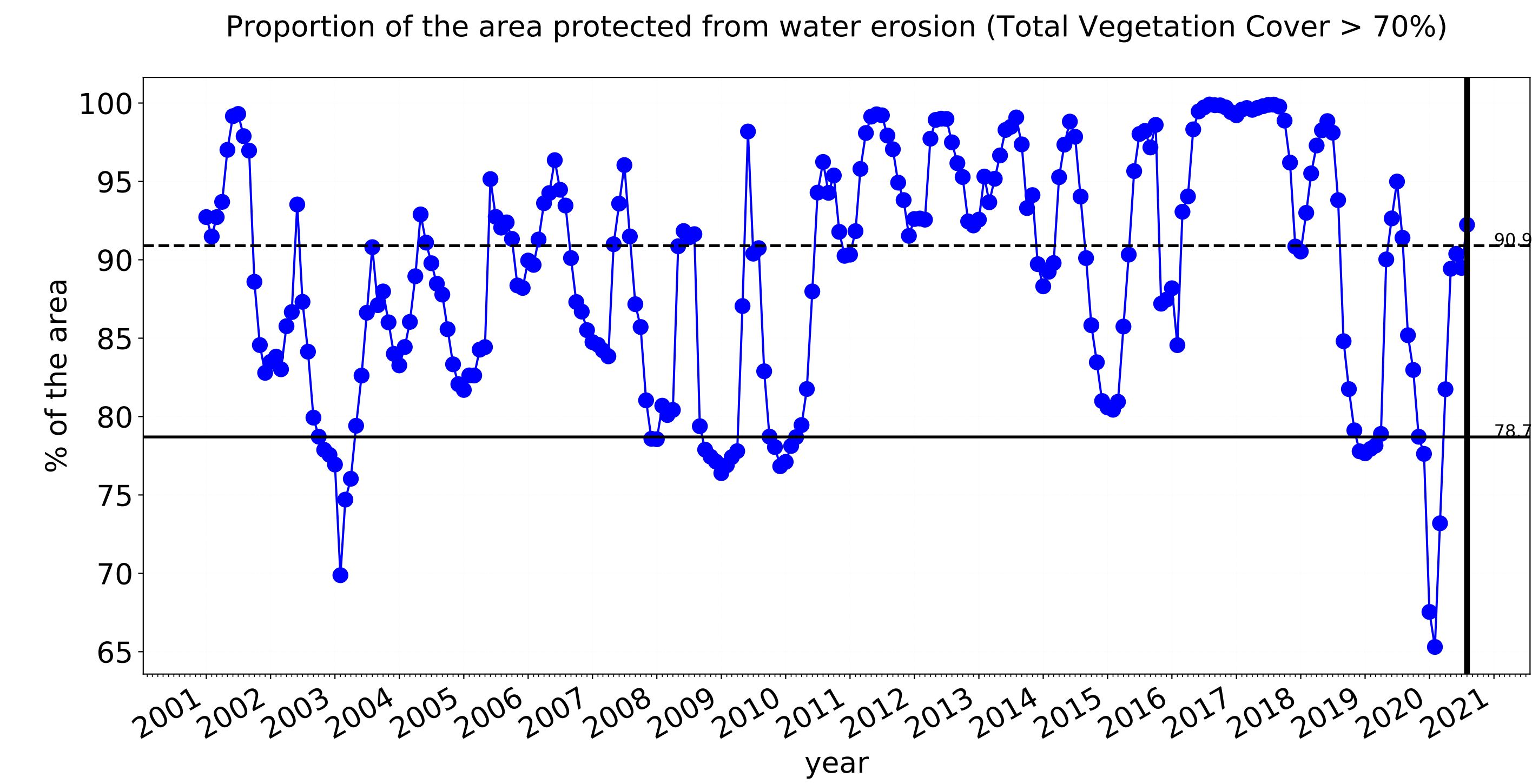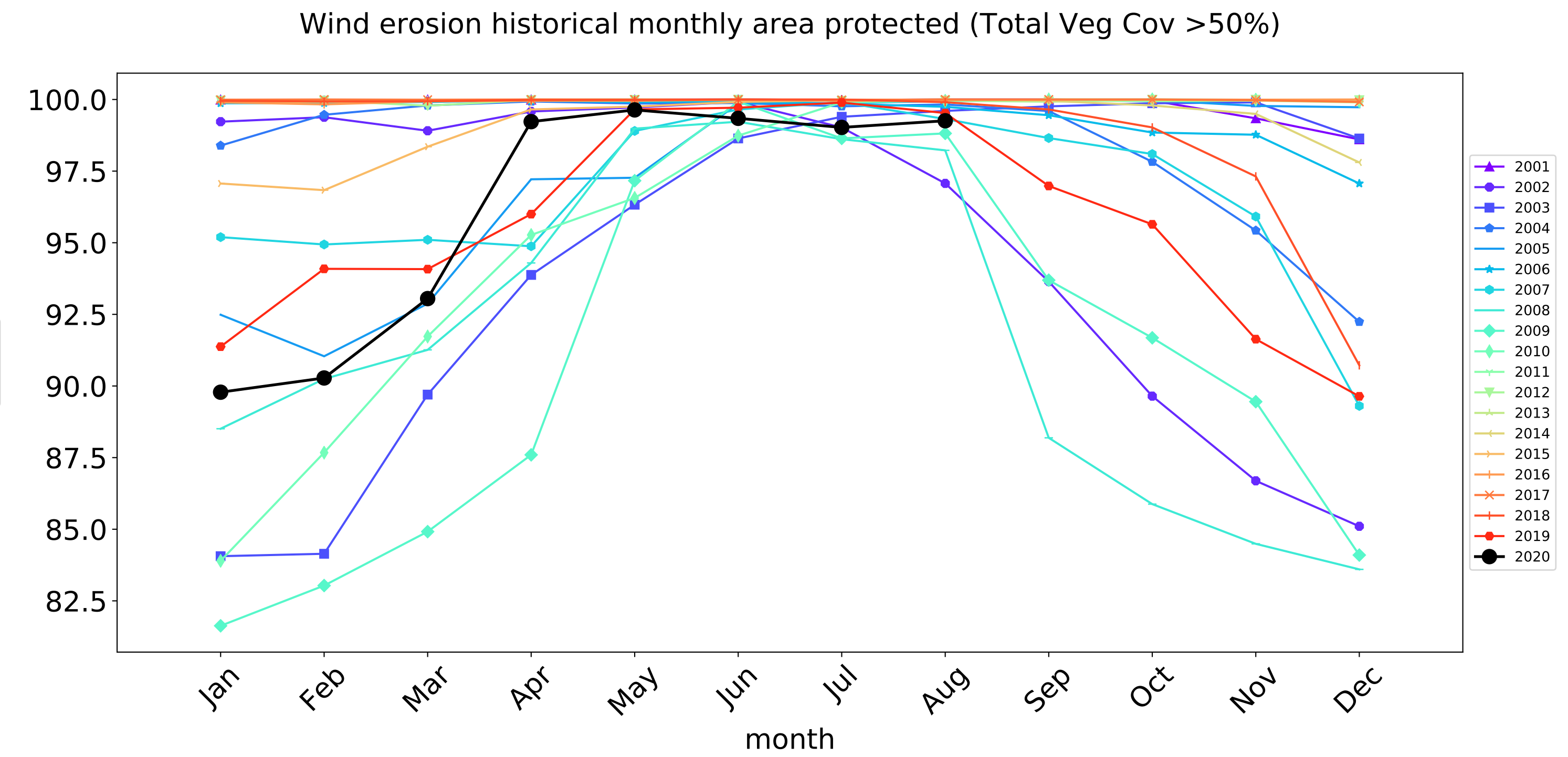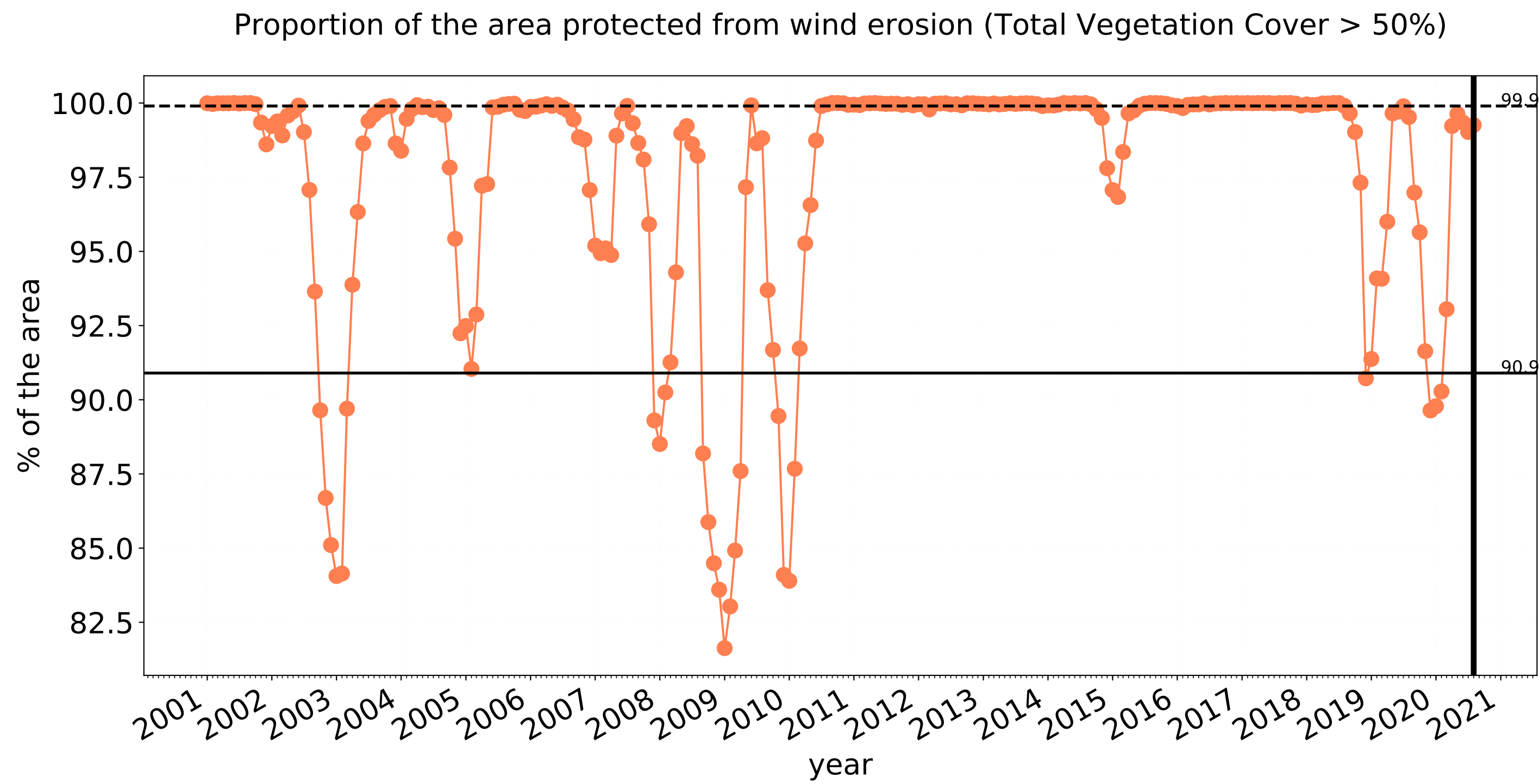
Total Vegetation Cover Decile [%]

Deciles show where the pixel value lies in the record, from highest to lowest, for that month. That is, red pixels are in the lowest 10% of records for that month of the map using baseline from 2001 to 2019.
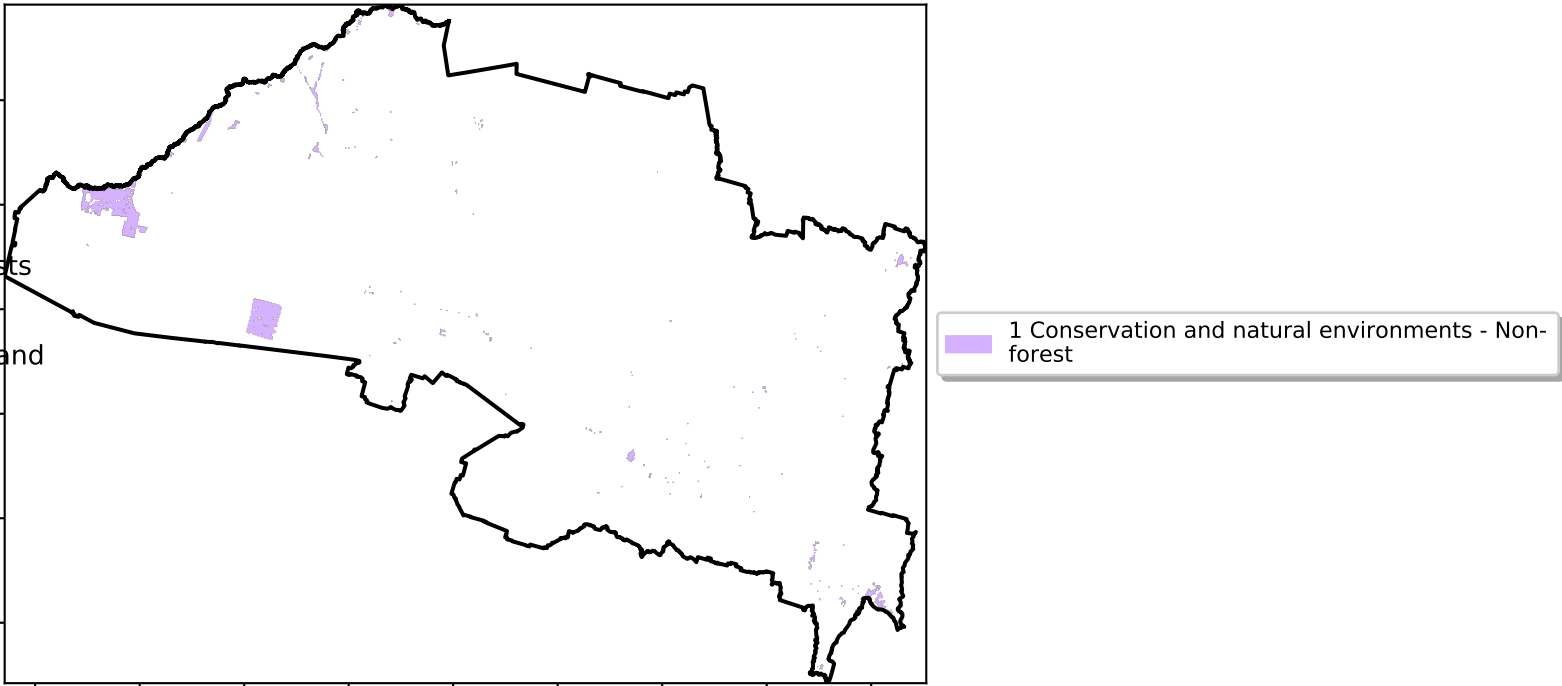
Proportion of the area protected from wind erosion (Total Vegetation Cover > 50%)

Wind erosion historical monthly area protected (Total Veg Cov >50%)

Proportion of the area protected from water erosion (Total Vegetation Cover > 70%)

Water erosion historical monthly area protected (Total Veg Cov>70%)

Monthly rainfall from 2001 to 2020

Rainfall: historical monthly

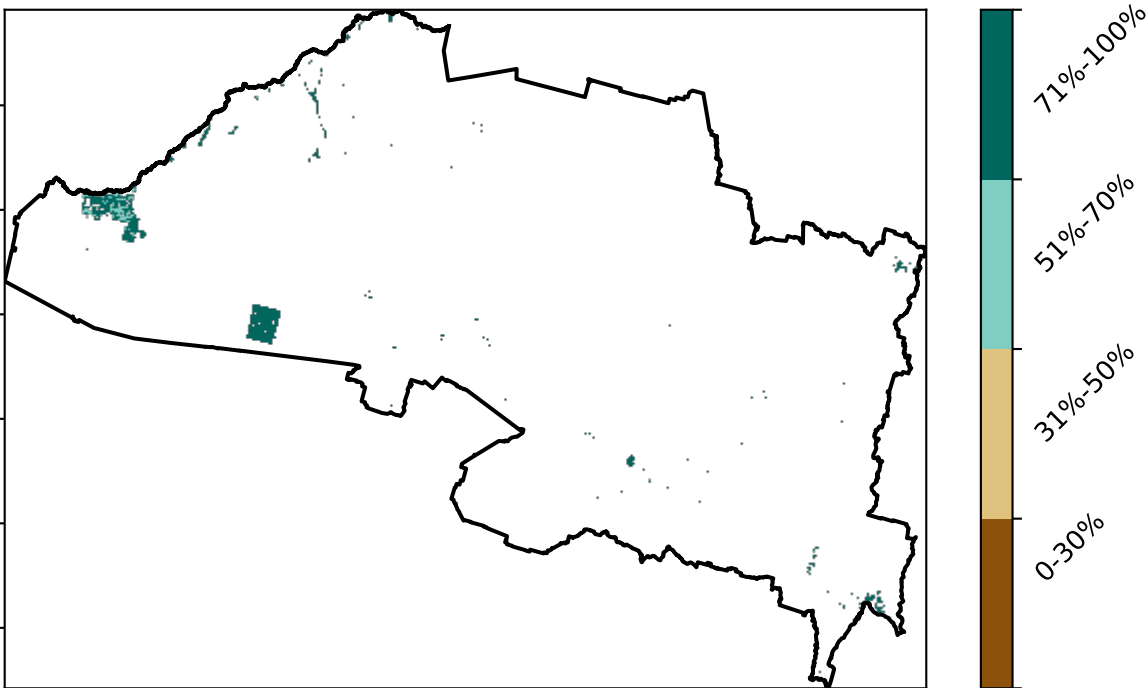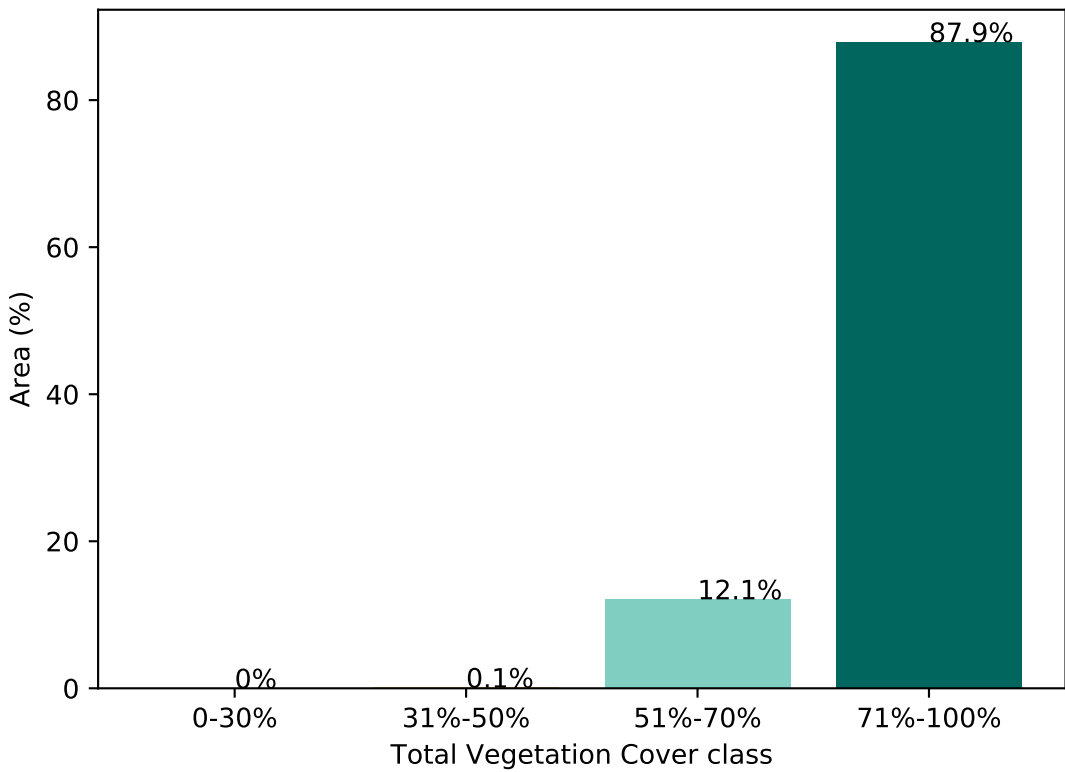# Conservation and natural environments

Land use and forest cover

Catchment Scale
Land Use and Forests
of Australia (2018)
Derived from
Catchment Scale Land
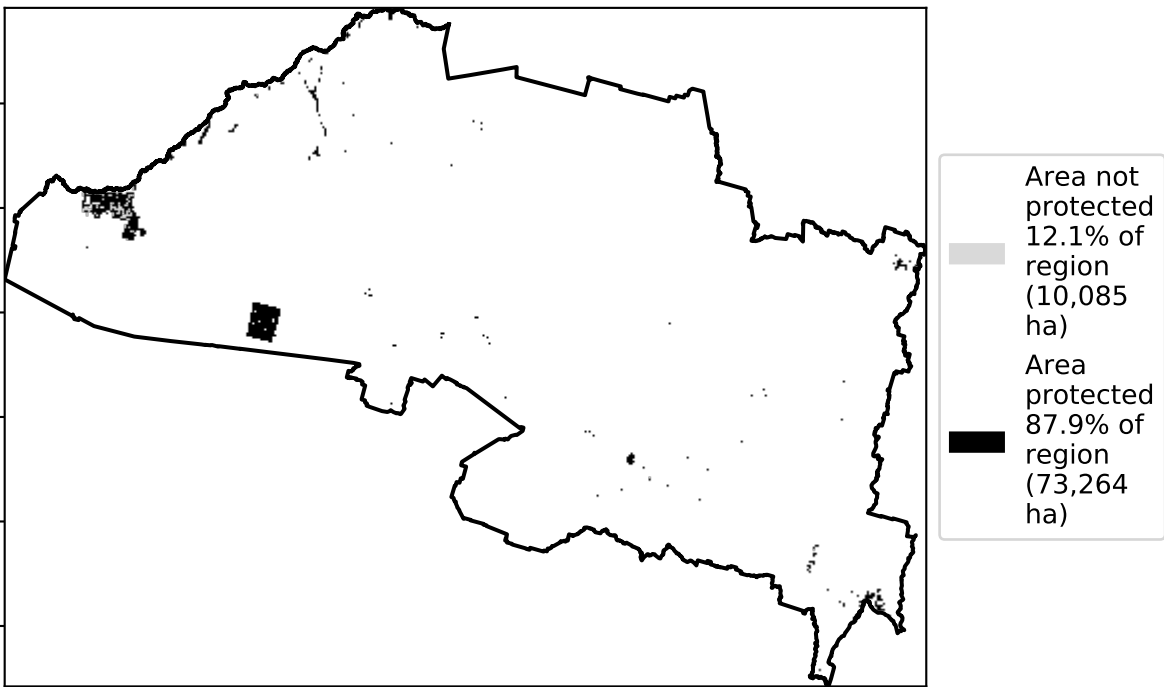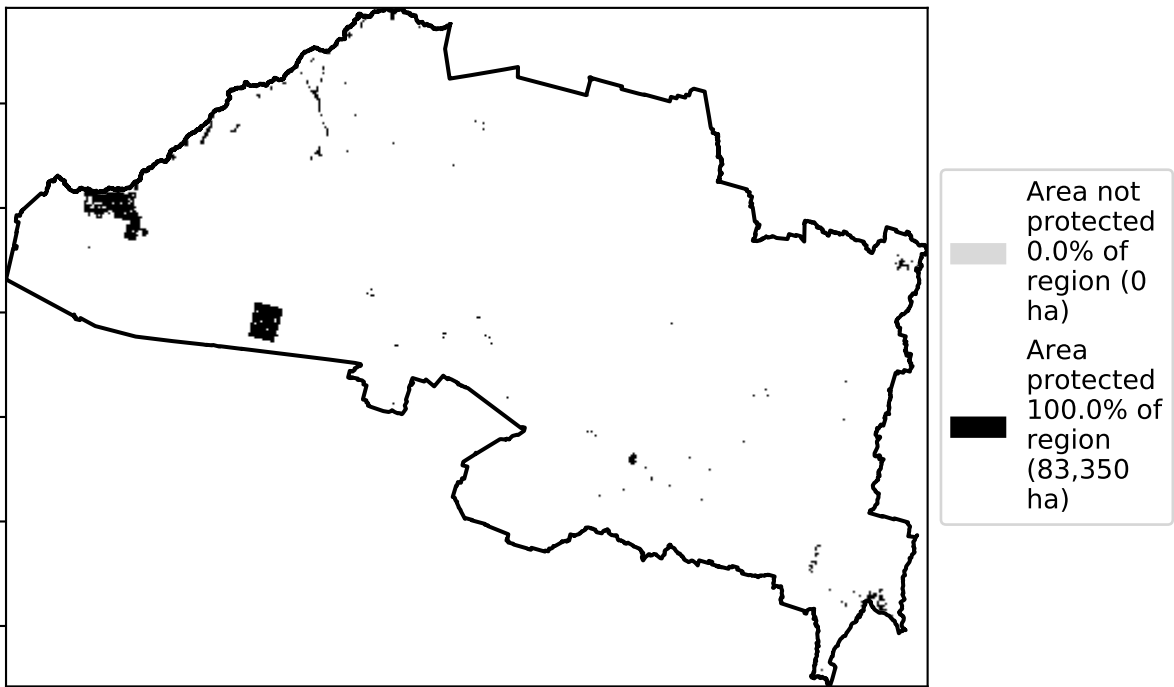Use of Australia
(2018) and Forests
of Australia (2018)

1 Conservation and natural environments - Non-forest
2 Conservation and natural environments – Woodland forest
3 Conservation and natural environments – Non-woodland forest

Proportion of each land class in area

Total Vegetation Cover [%]

71%-100%
51%-70%
31%-50%
0-30%

Proportion of vegetation cover class in area

% Area protected from water erosion (>70%)

Area not
protected
7.8% of
region
(25,203
ha)
Area
protected
92.2% of
region
(297,921
ha)

% Area protected from wind erosion (>50%)
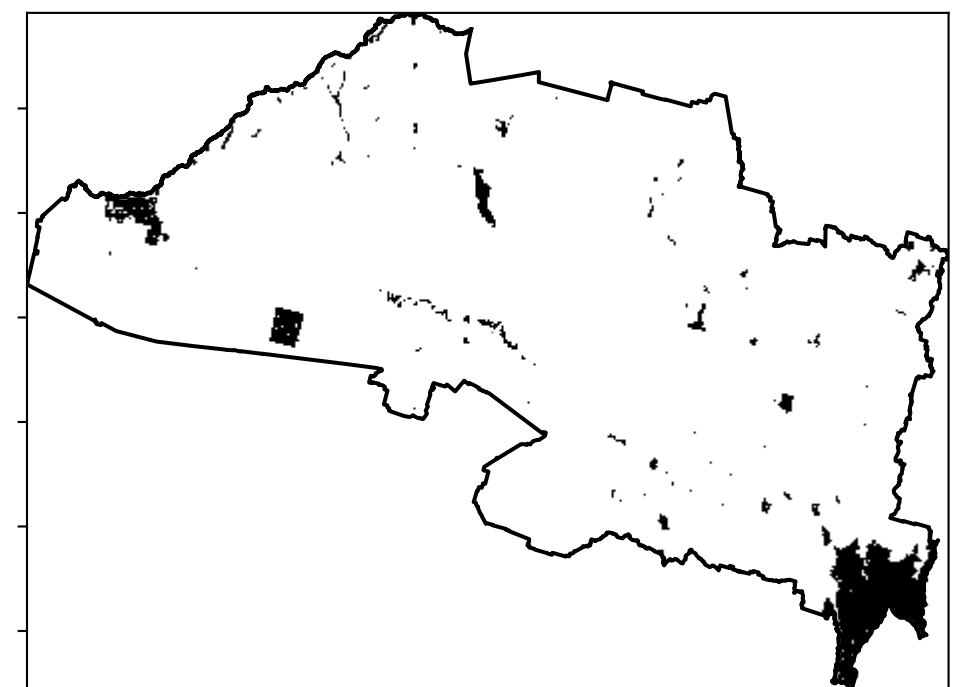
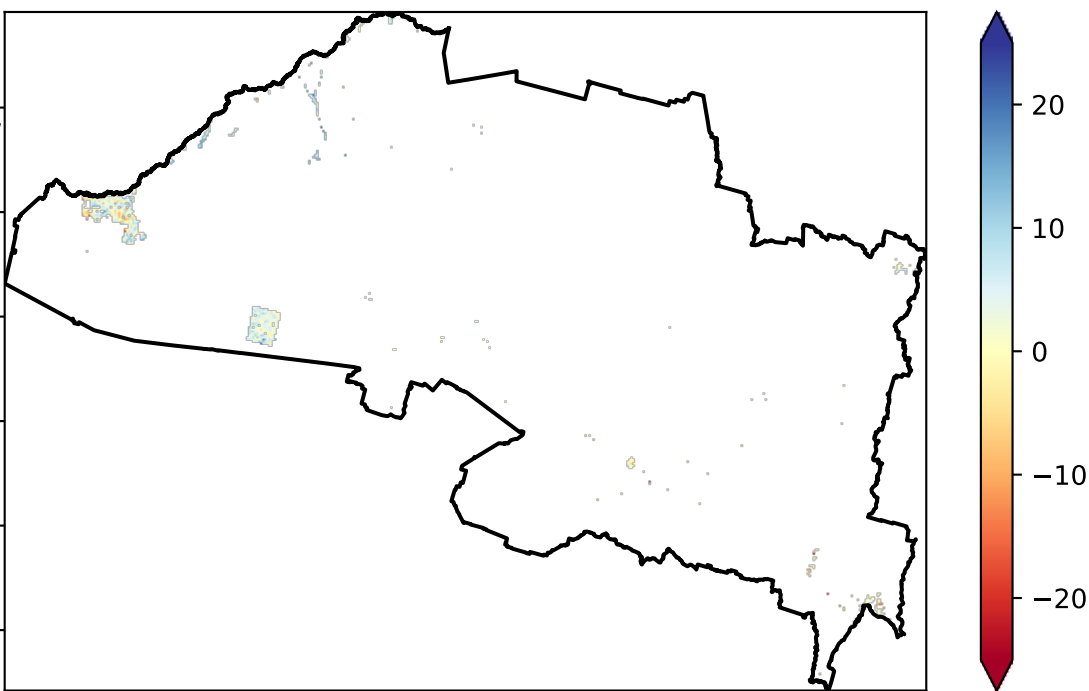Area not
protected
1.0% of
region
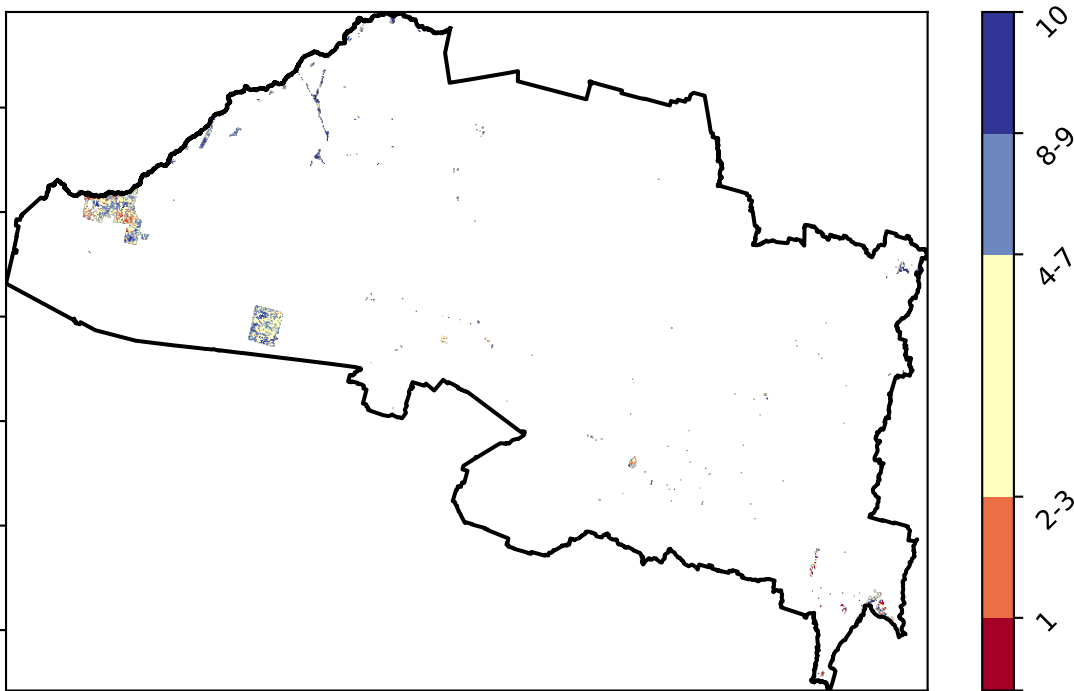(3,231 ha)
Area
protected
99.0% of
region
(319,893
ha)

Total Vegetation Cover Anomaly [%]

Anomaly show how
many percetage
points each
pixel is from
the mean. That
is, red pixels
are about 20%
lower than the
mean of that
pixel. The mean
is only for the
month of the map
using baseline
from 2001 to
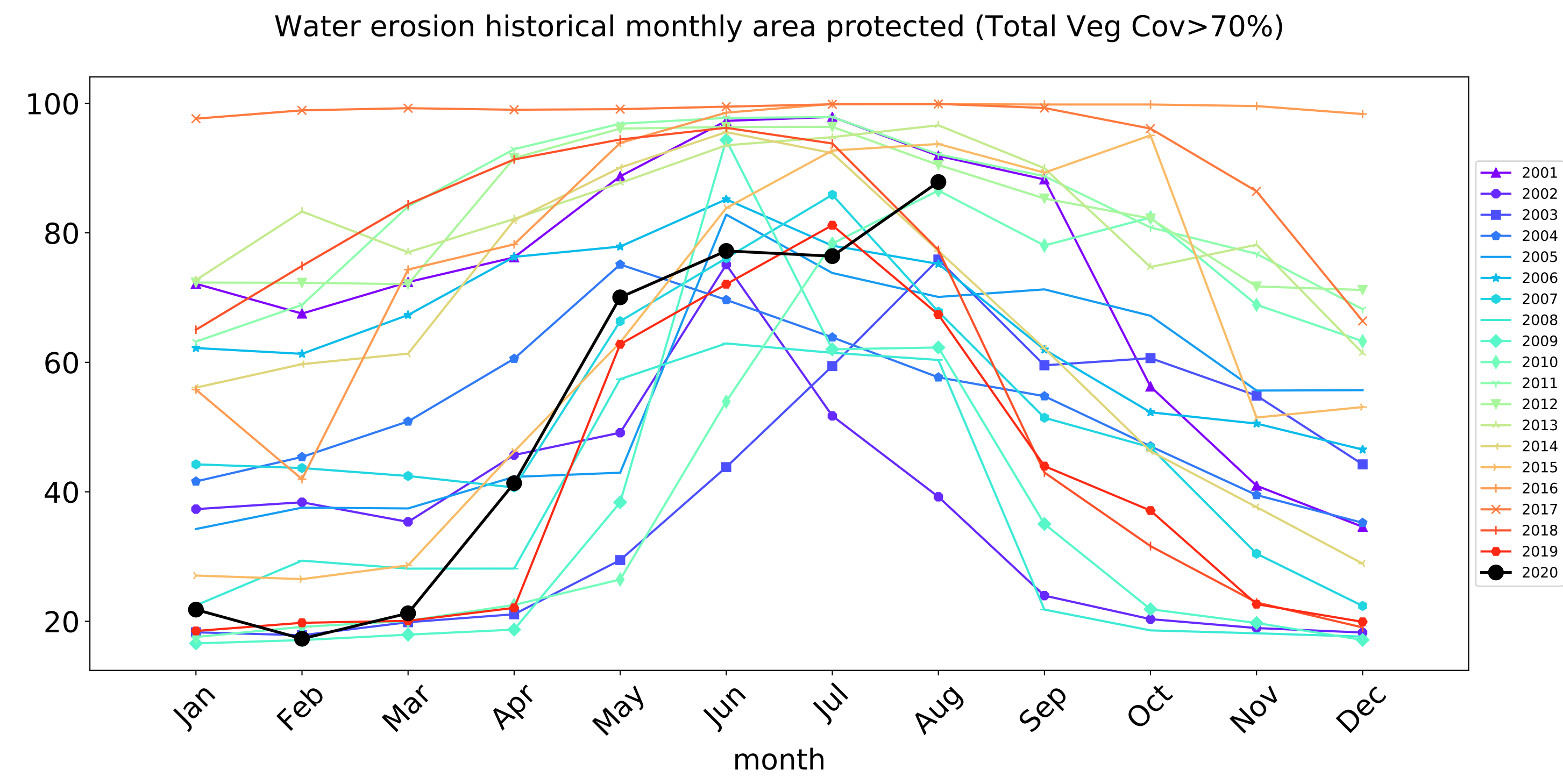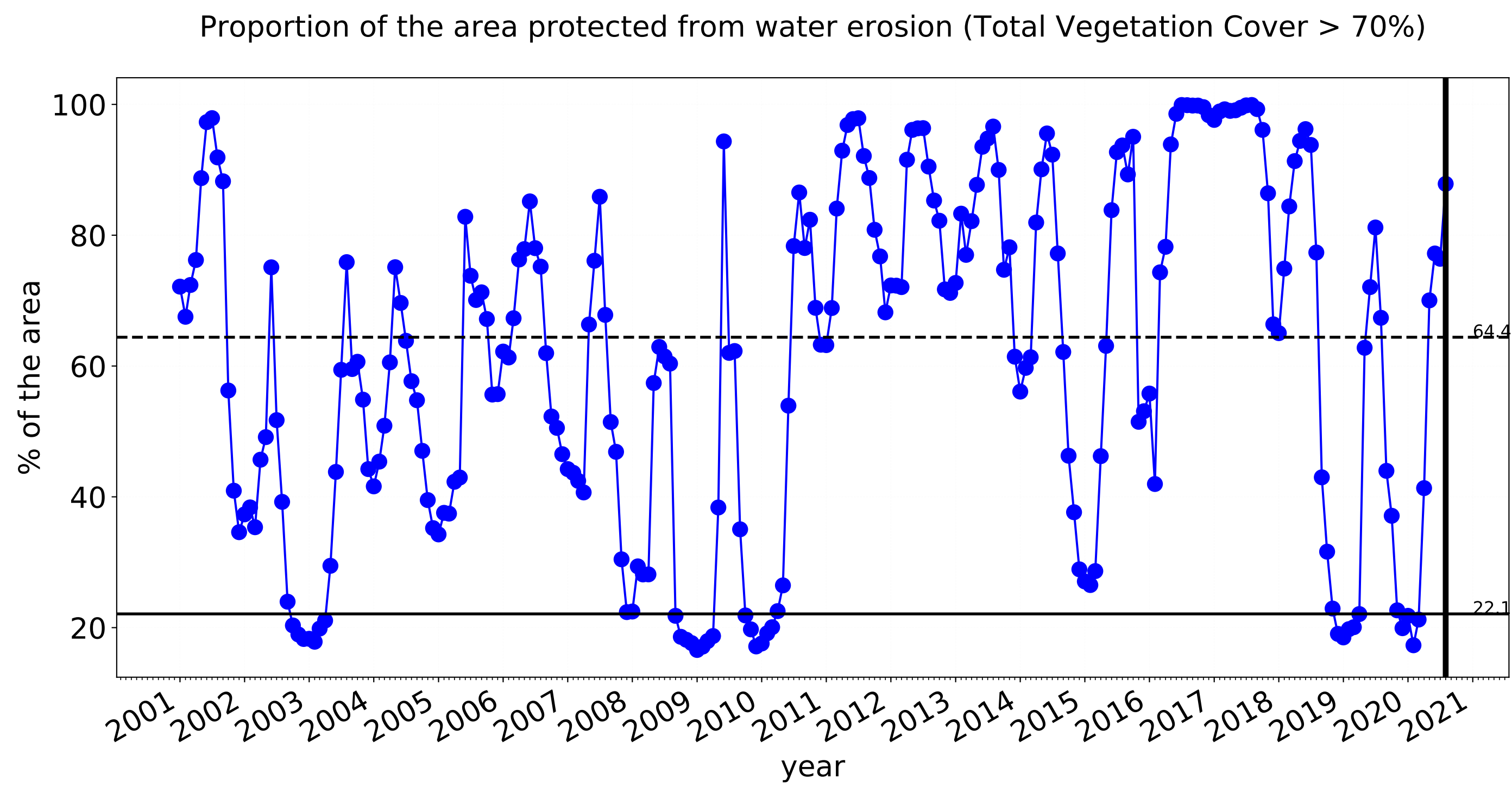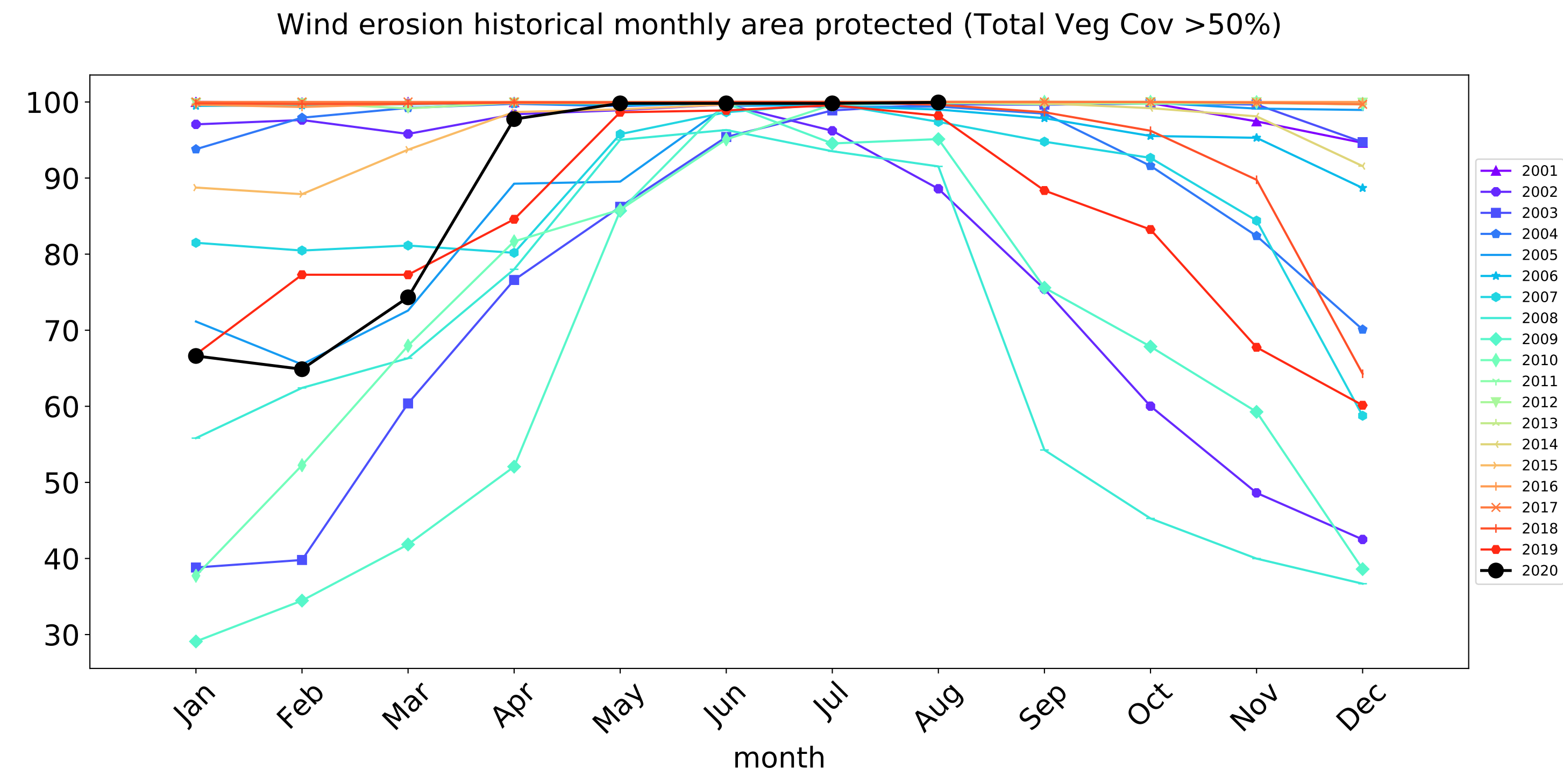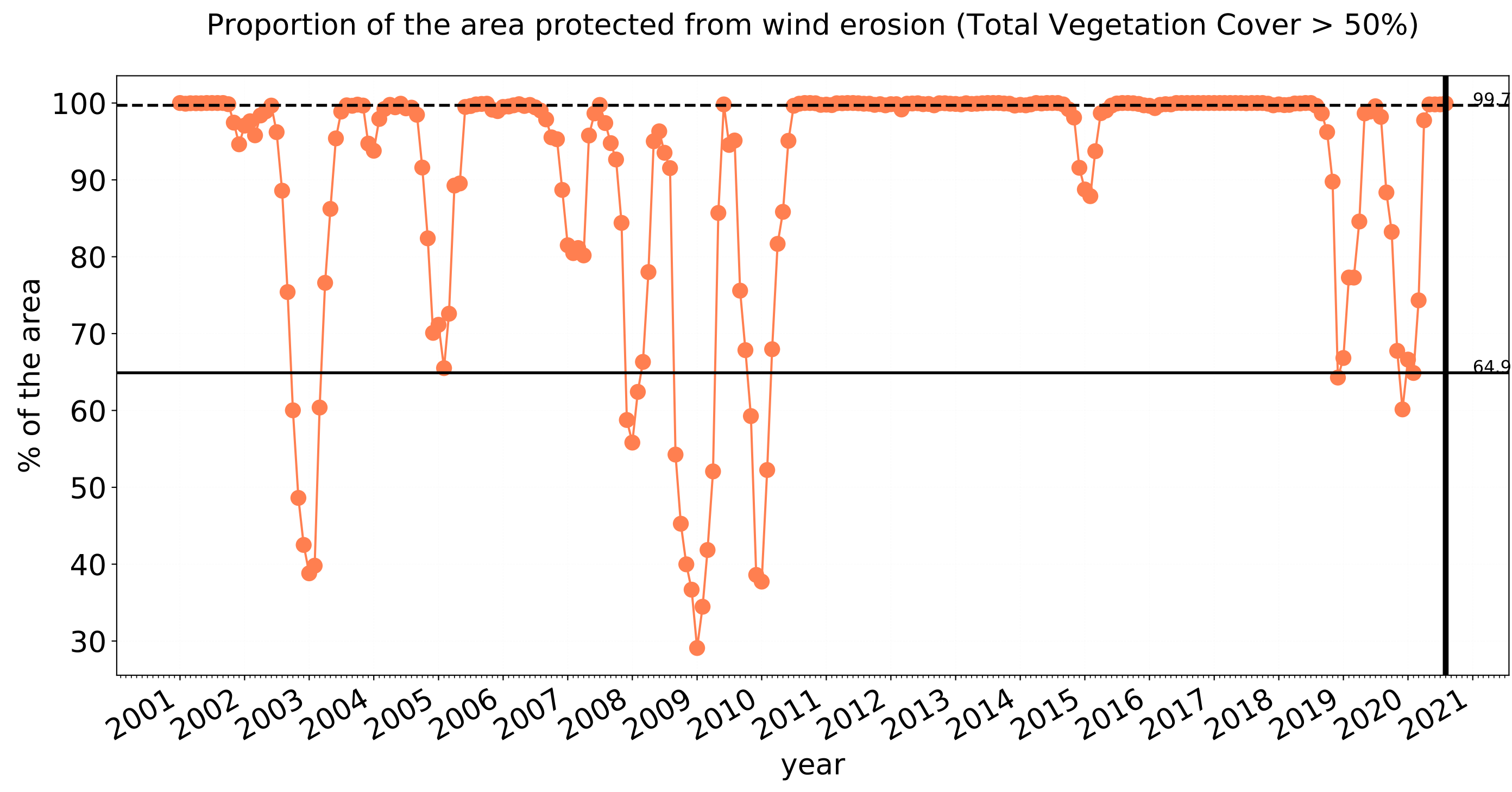2019.

Total Vegetation Cover Decile [%]

Deciles show where the
pixel value lies in the
record, from highest to
lowest, for that month.
That is, red pixels are
in the lowest 10% of
records for that month of
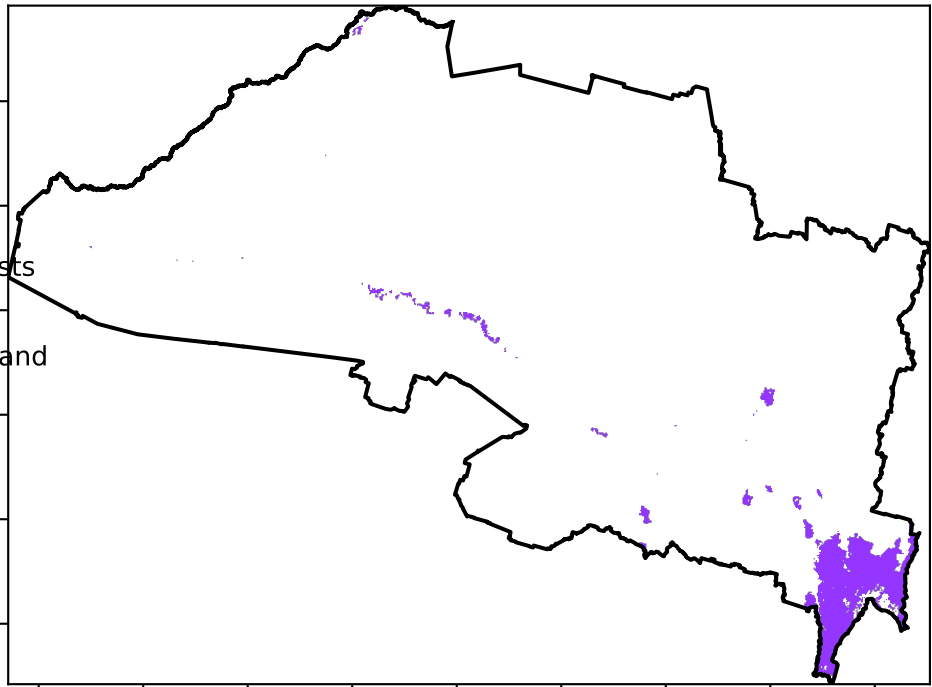the map using baseline
from 2001 to 2019.

10
8-9
4-7
2-3
1

Conservation and natural environments timeseries

Proportion of the area protected from wind erosion (Total Vegetation Cover > 50%)

Wind erosion historical monthly area protected (Total Veg Cov >50%)

Proportion of the area protected from water erosion (Total Vegetation Cover > 70%)

Water erosion historical monthly area protected (Total Veg Cov>70%)
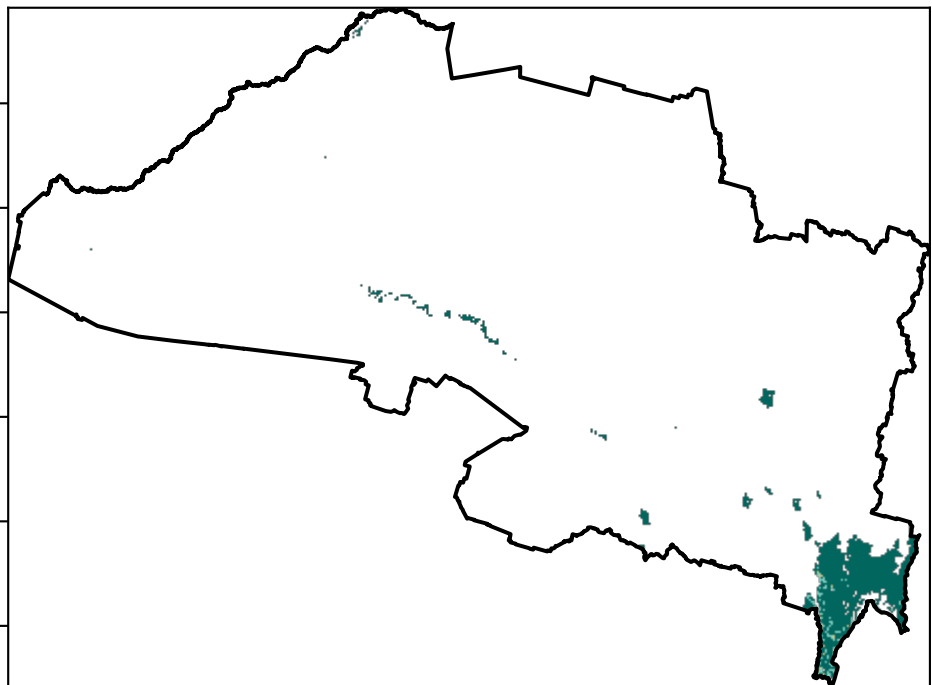
Conservation and natural environments non forest

Land use and forest cover

Catchment Scale
Land Use and Forests
of Australia (2018)
Derived from
Catchment Scale Land
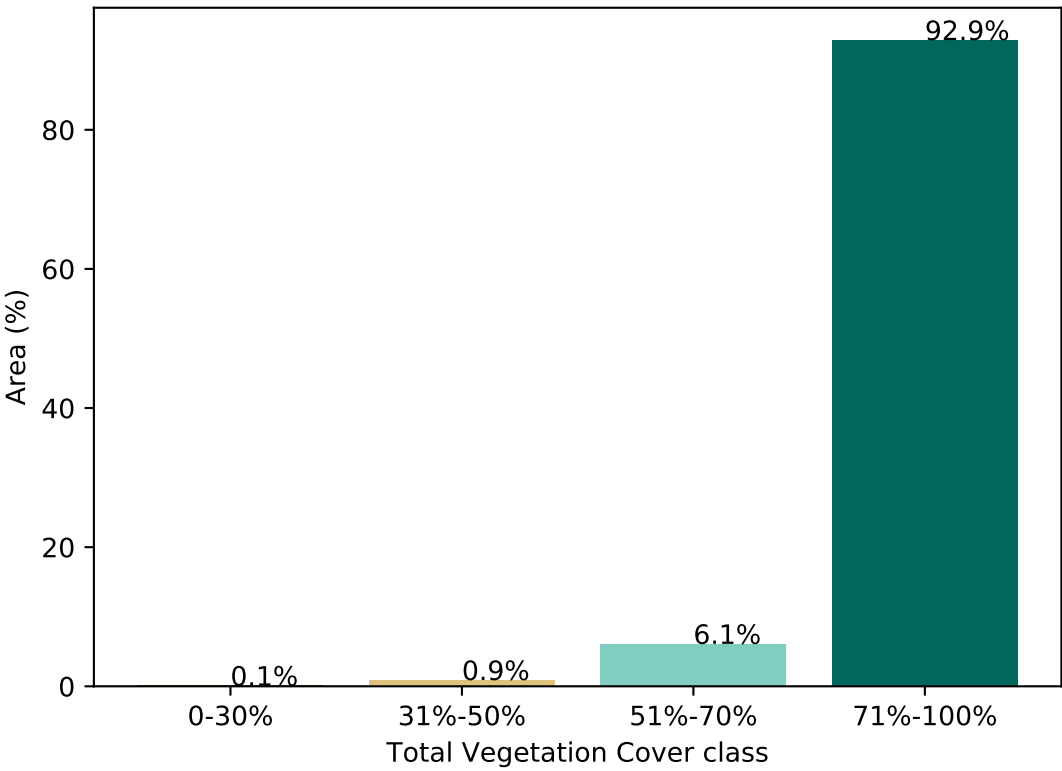Use of Australia
(2018) and Forests
of Australia (2018)

1 Conservation and natural environments - Non-forest

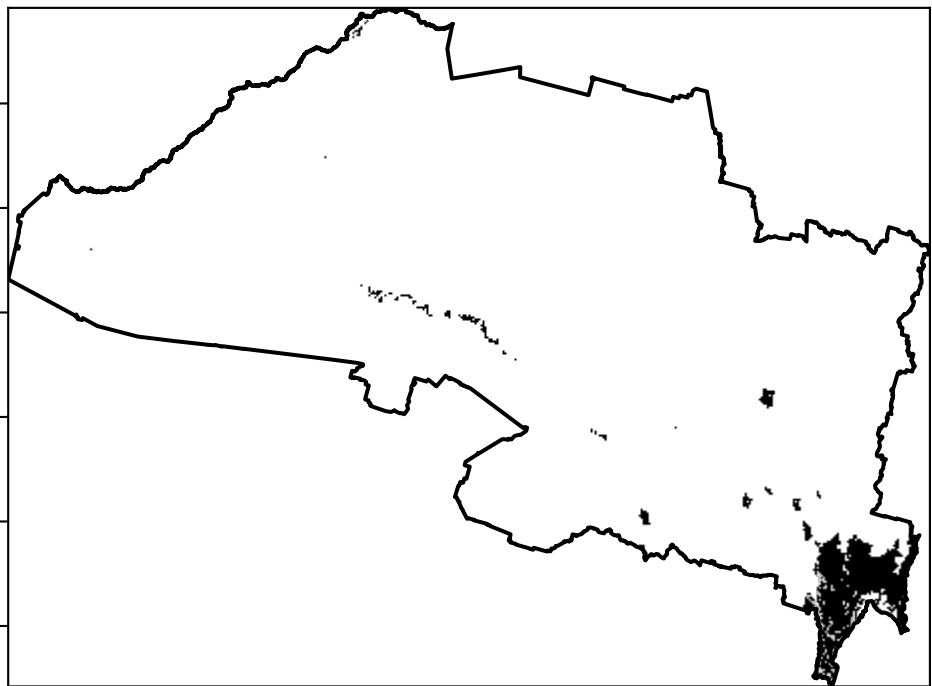## Total Vegetation Cover [%]

71%-100%

51%-70%

31%-50%

0-30%

Proportion of vegetation cover class in area

87.9%

12.1%

0% 0.1%

Area (%)

Total Vegetation Cover class
0-30%   31%-50%   51%-70%   71%-100%

% Area protected from water erosion (>70%)

Area not
protected
12.1% of
region
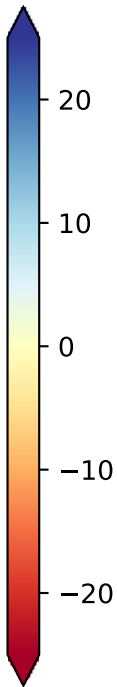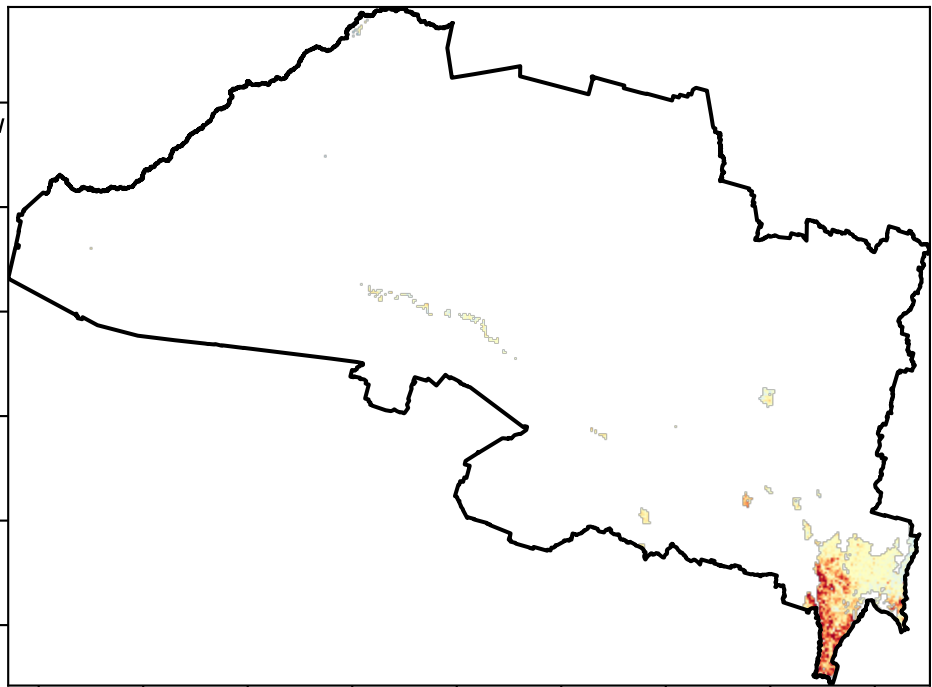(10,085
ha)

Area
protected
87.9% of
region
(73,264
ha)

% Area protected from wind erosion (>50%)

Area not
protected
0.0% of
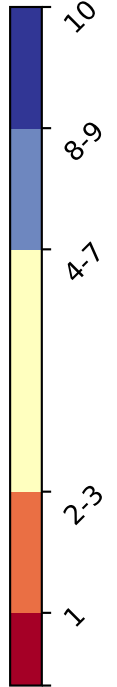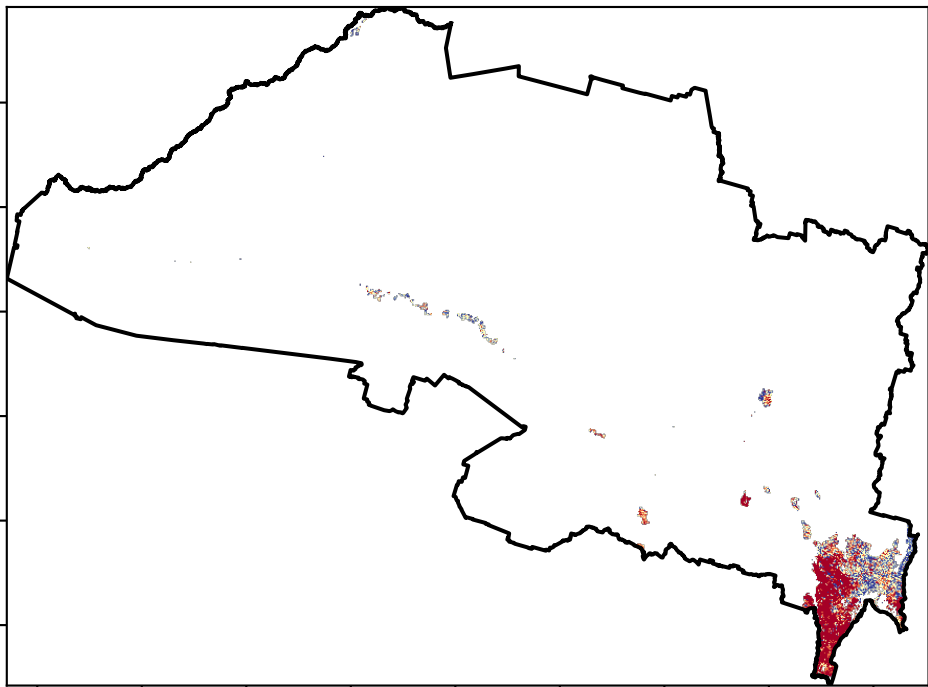region (0
ha)

Area
protected
100.0% of
region
(83,350
ha)

Total Vegetation Cover Anomaly [%]

Anomaly show how
many percetage
points each
pixel is from
the mean. That
is, red pixels
are about 20%
lower than the
mean of that
pixel. The mean
is only for the
month of the map
using baseline
from 2001 to
2019.

Total Vegetation Cover Decile [%]

Deciles show where the
pixel value lies in the
record, from highest to
lowest, for that month.
That is, red pixels are
in the lowest 10% of
records for that month
of the map using baseline
from 2001 to 2019.

10

8-9

4-7

2-3

1

CSIRO   tern Ecosystem Research Infrastructure   Australian Government   National Landcare Programme   NSW GOVERNMENT

Conservation and natural environments non forest timeseries

Proportion of the area protected from wind erosion (Total Vegetation Cover > 50%)

Wind erosion historical monthly area protected (Total Veg Cov >50%)

Proportion of the area protected from water erosion (Total Vegetation Cover > 70%)

Water erosion historical monthly area protected (Total Veg Cov>70%)

Conservation and natural environments Forest (non woodland)

Land use and forest cover

Catchment Scale
Land Use and Forests
of Australia (2018)
Derived from
Catchment Scale Land
Use of Australia
(2018) and Forests
of Australia (2018)

■ 1 Conservation and natural environments – Non-woodland forest

Total Vegetation Cover [%]

71%-100%
51%-70%
31%-50%
0-30%

Proportion of vegetation cover class in area

92.9%

0.1%   0.9%   6.1%

0-30%   31%-50%   51%-70%   71%-100%

Total Vegetation Cover class

% Area protected from water erosion (>70%)

Area not
protected
7.1% of
region
(13,864
ha)

Area
protected
92.9% of
region
(181,410
ha)

% Area protected from wind erosion (>50%)
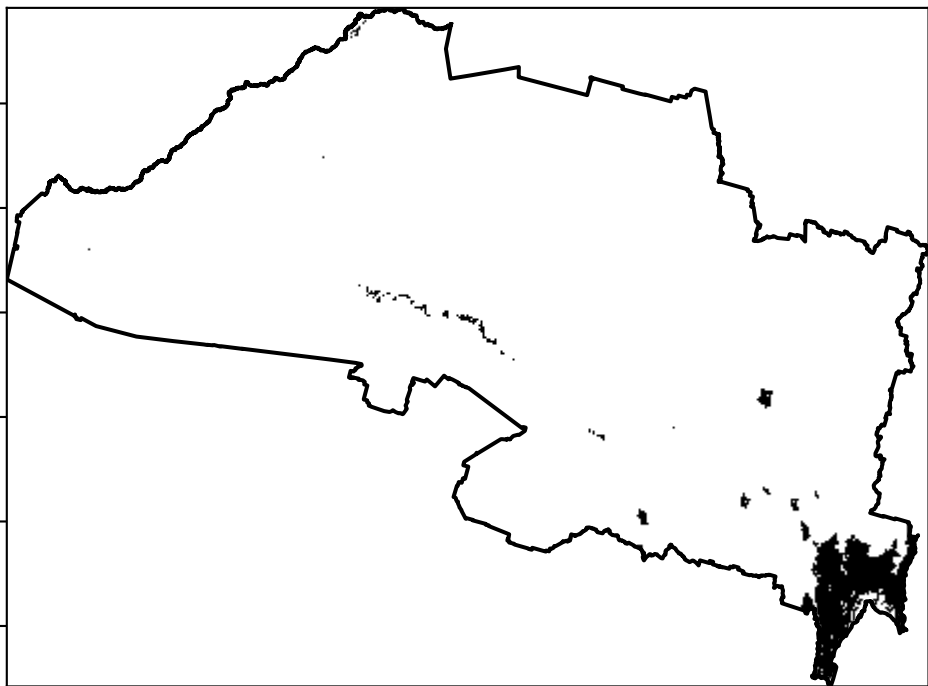
Area not
protected
1.0% of
region
(1,952 ha)

Area
protected
99.0% of
region
(193,322
ha)

Total Vegetation Cover Anomaly [%]

Anomaly show how
many percetage
points each
pixel is from
the mean. That
is, red pixels
are about 20%
lower than the
mean of that
pixel. The mean
is only for the
month of the map
using baseline
from 2001 to
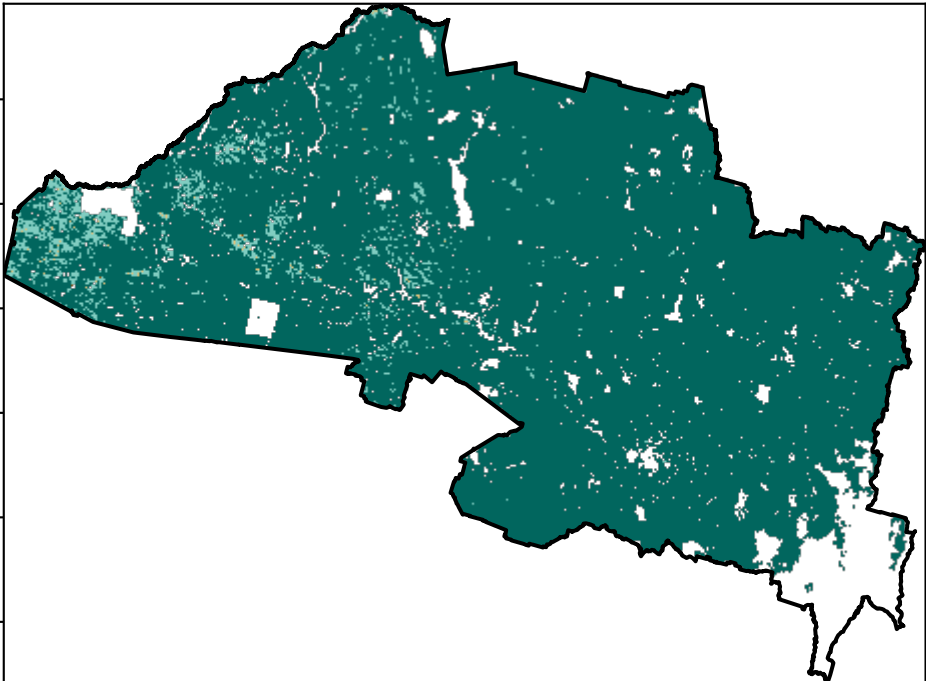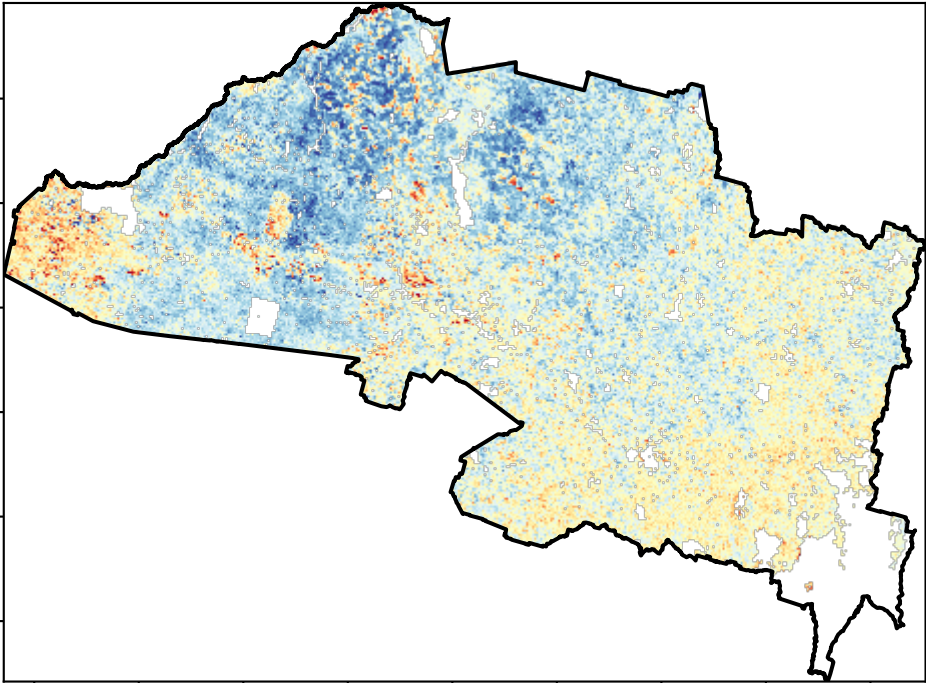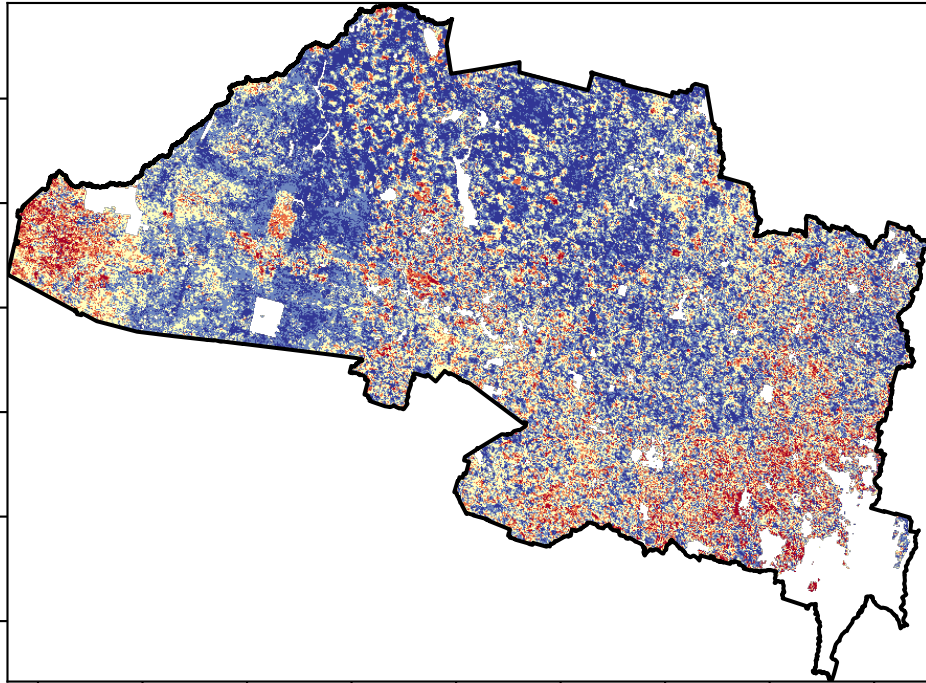2019.

Total Vegetation Cover Decile [%]

Deciles show where the
pixel value lies in the
record, from highest to
lowest, for that month.
That is, red pixels are
in the lowest 10% of
records for that month of
the map using baseline
from 2001 to 2019.

10
8-9
4-7
2-3
1

Conservation and natural environments Forest (non woodland) timeseries

Proportion of the area protected from wind erosion (Total Vegetation Cover > 50%)

Wind erosion historical monthly area protected (Total Veg Cov >50%)

Proportion of the area protected from water erosion (Total Vegetation Cover > 70%)

Water erosion historical monthly area protected (Total Veg Cov>70%)

Agriculture

Land use and forest cover

Catchment Scale Land Use and Forests of Australia (2018) Derived from Catchment Scale Land Use of Australia (2018) and Forests of Australia (2018)

Legend:
- 1 Agriculture - Grazing - Non forest
- 2 Agriculture - Grazing - Woodland forest
- 3 Agriculture - Grazing - Non-woodland forest
- 4 Agriculture - Grazing - Irrigated
- 5 Agriculture - Cropping - Non-irrigated
- 6 Agriculture - Cropping - Irrigated
- 7 Agriculture - Horticulture - Non-irrigated
- 8 Agriculture - Horticulture - Irrigated

Proportion of each land class in area

Values: 34.1%, 2.3%, 1.7%, 0.6%, 52.5%, 7.9%, 0.0%, 0.9%

Total Vegetation Cover [%]

Legend: 71%-100%, 51%-70%, 31%-50%, 0-30%

Proportion of vegetation cover class in area

Values: 0-30%: 0.0%, 31%-50%: 0.1%, 51%-70%: 3.4%, 71%-100%: 96.5%
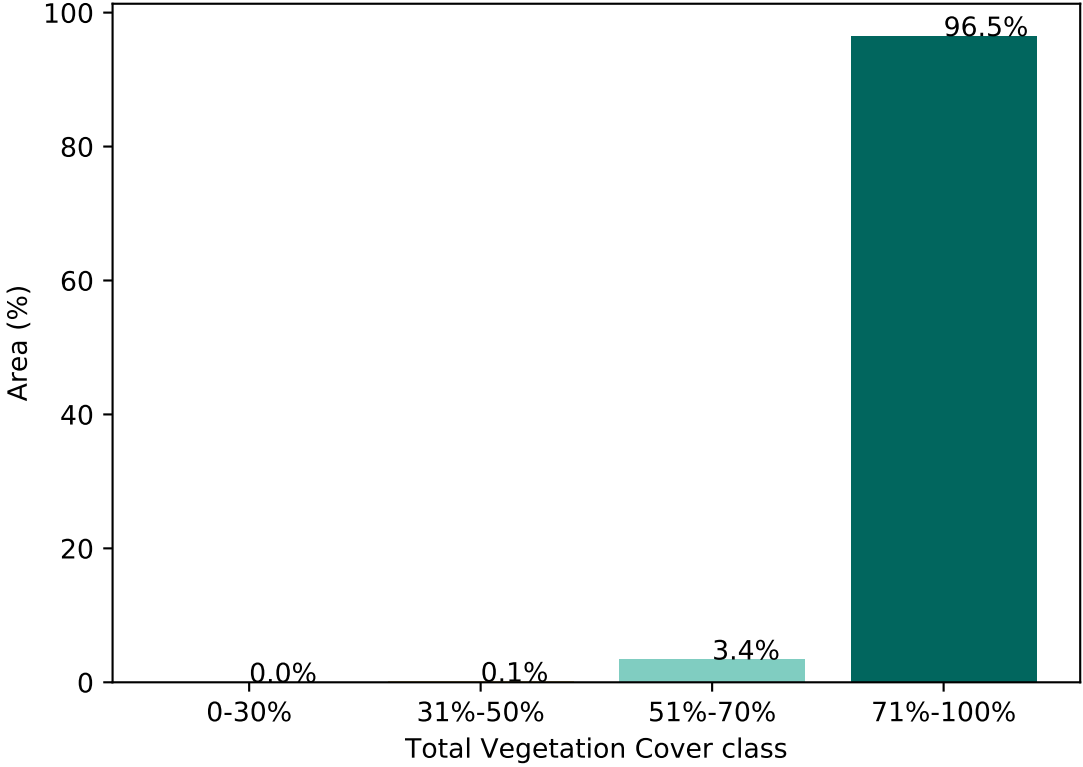
% Area protected from water erosion (>70%)

Area not protected 3.5% of region (212,381 ha)

Area protected 96.5% of region (5,855,668 ha)

% Area protected from wind erosion (>50%)

Area not protected 0.0% of region (0 ha)

Area protected 100.0% of region (6,068,050 ha)

Total Vegetation Cover Anomaly [%]

Anomaly show how many percetage points each pixel is from the mean. That is, red pixels are about 20% lower than the mean of that pixel. The mean is only for the month of the map using baseline from 2001 to 2019.

Total Vegetation Cover Decile [%]

Deciles show where the pixel value lies in the record, from highest to lowest, for that month. That is, red pixels are in the lowest 10% of records for that month of the map using baseline from 2001 to 2019.
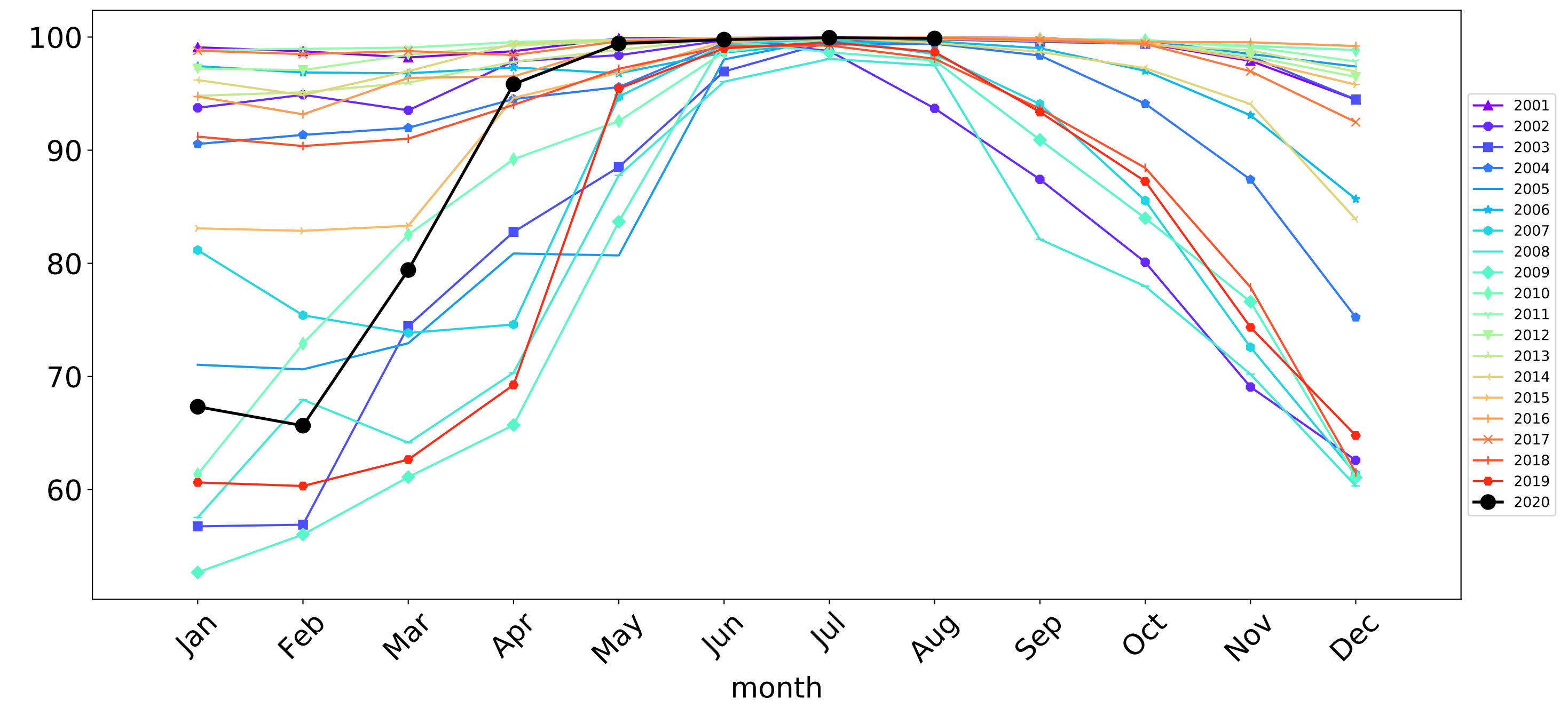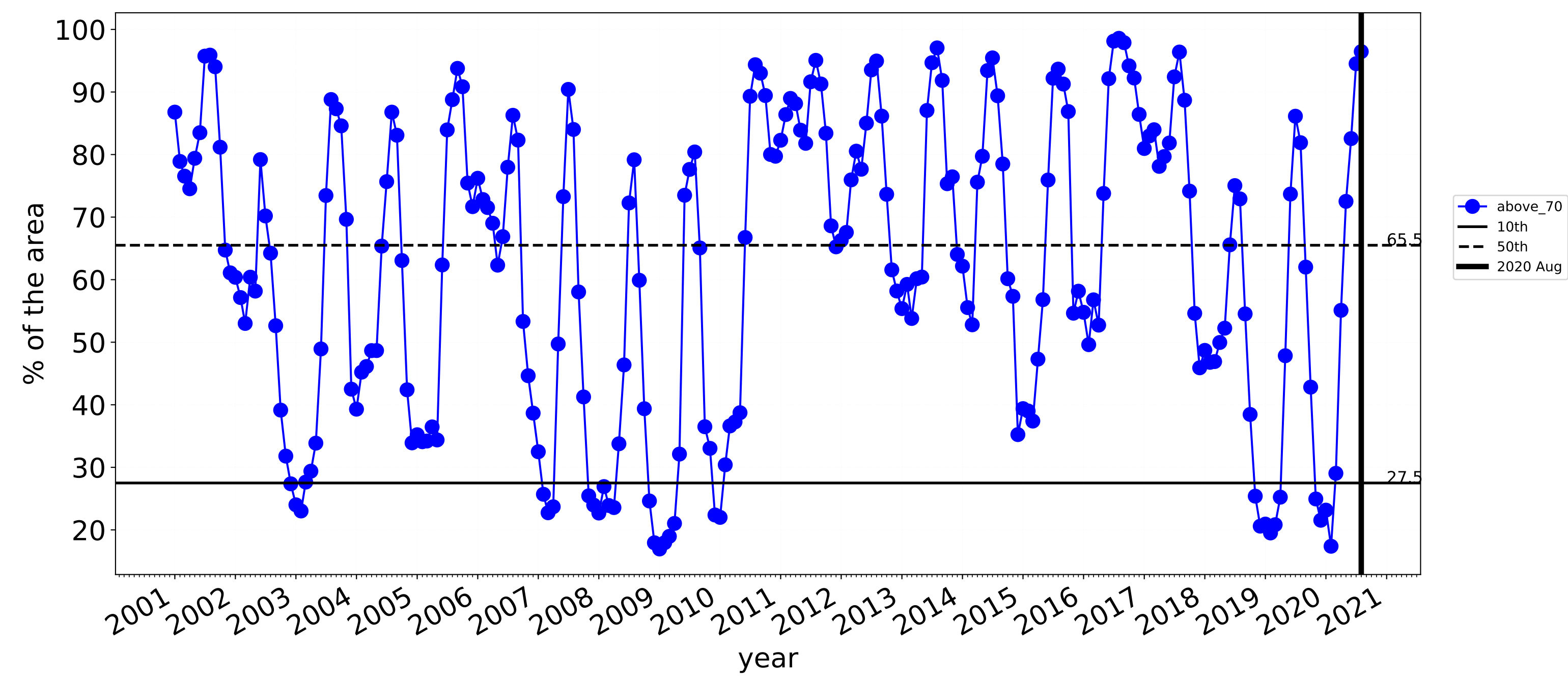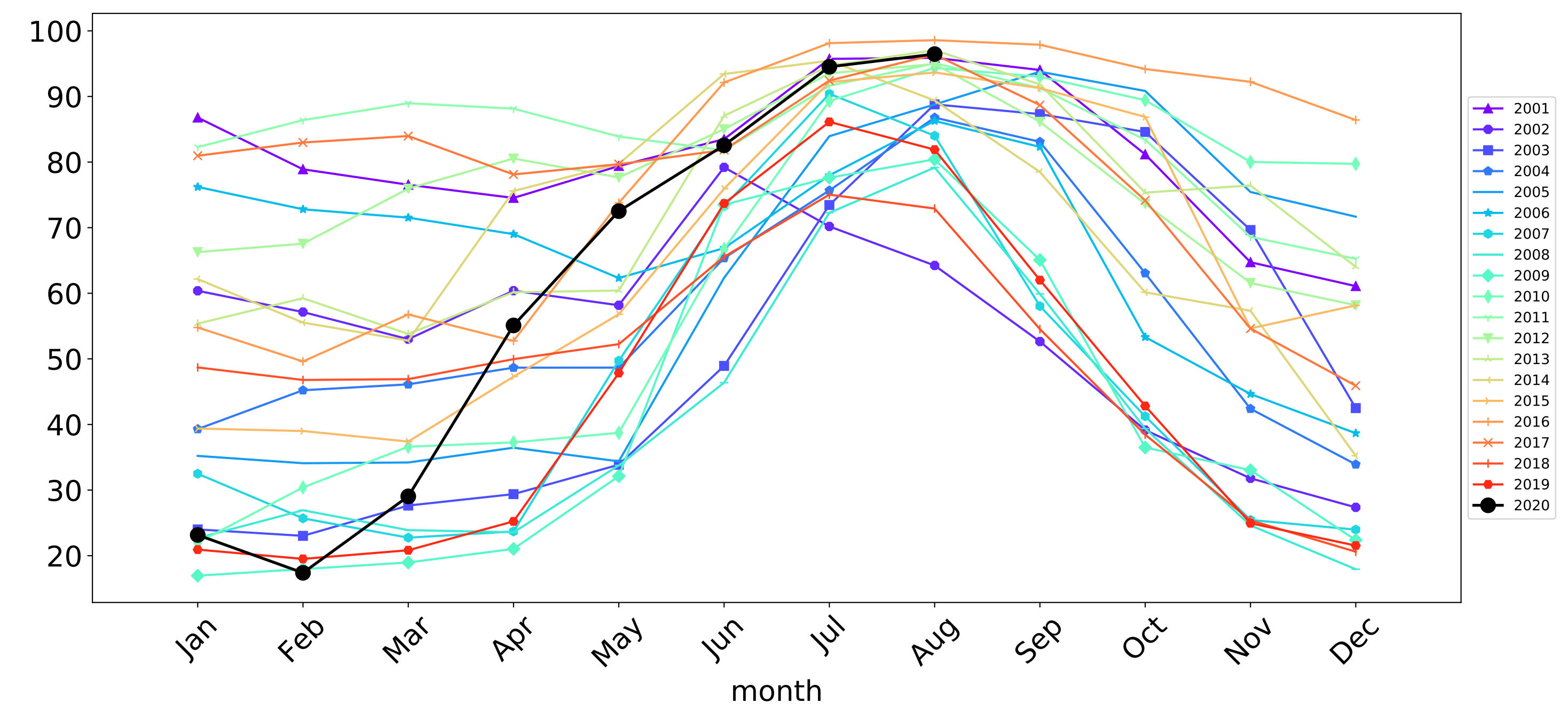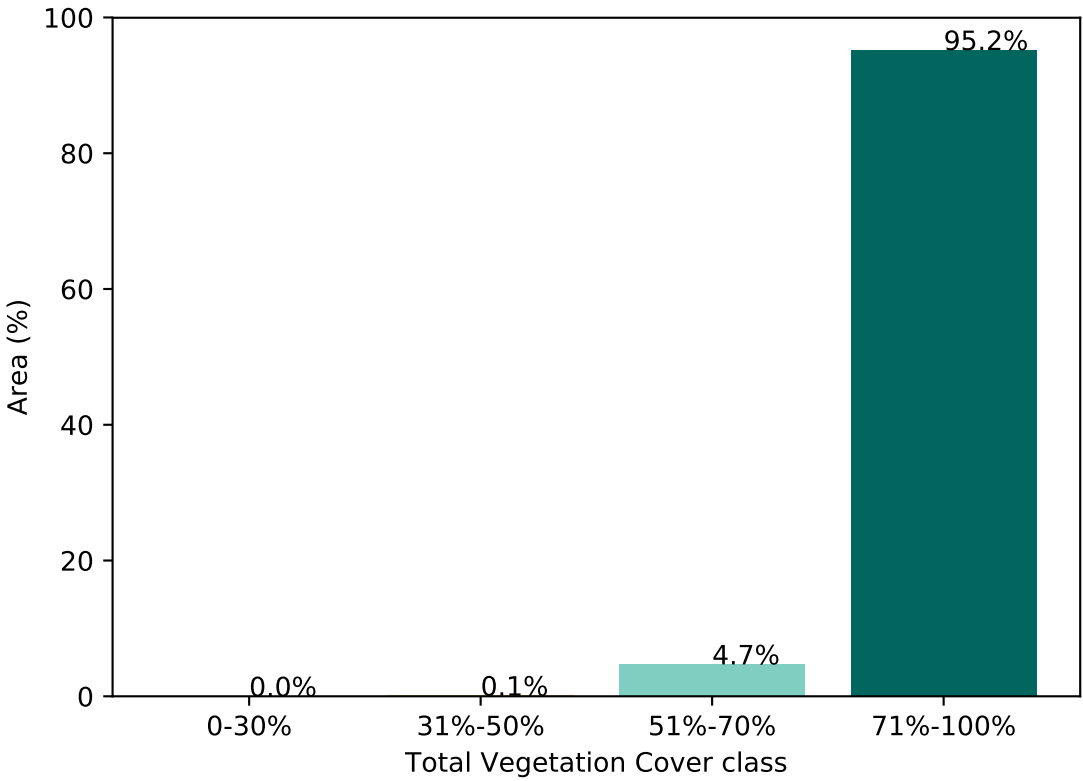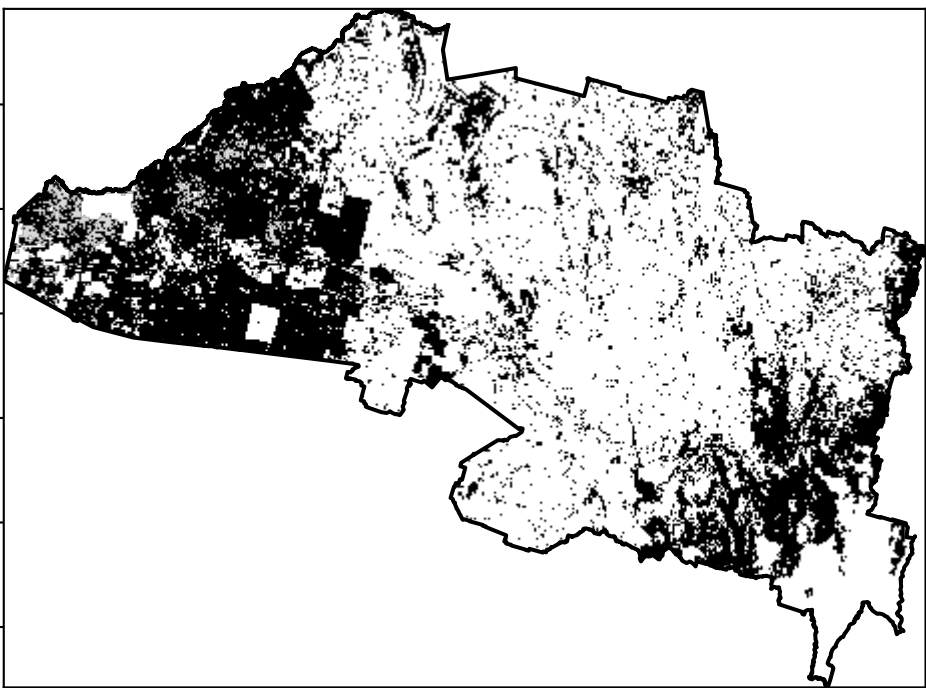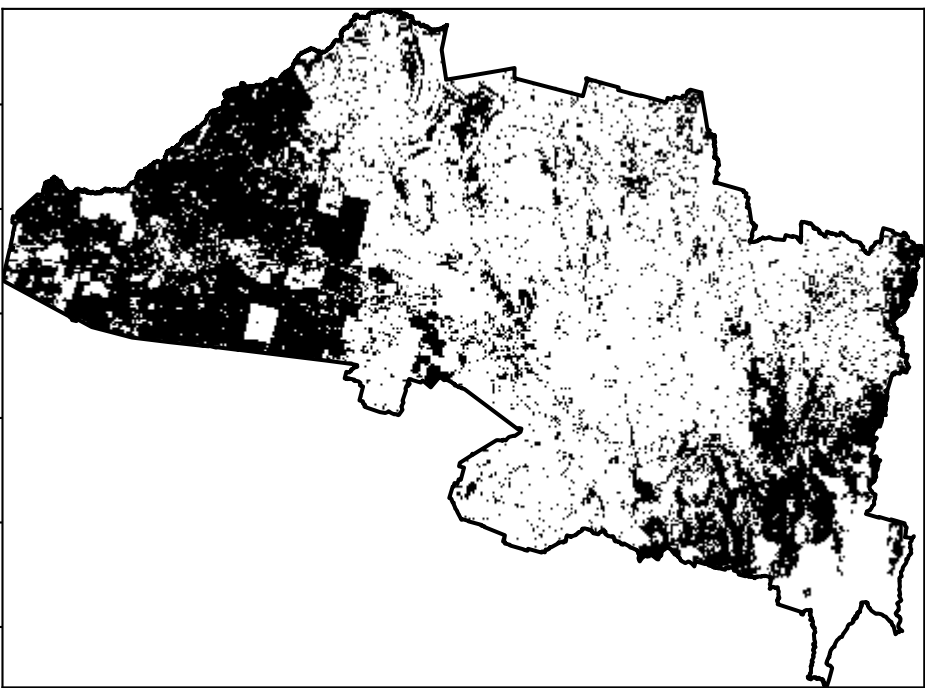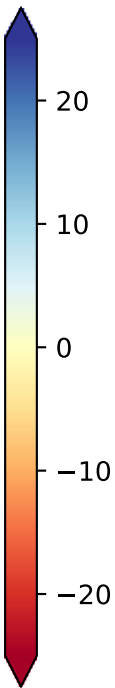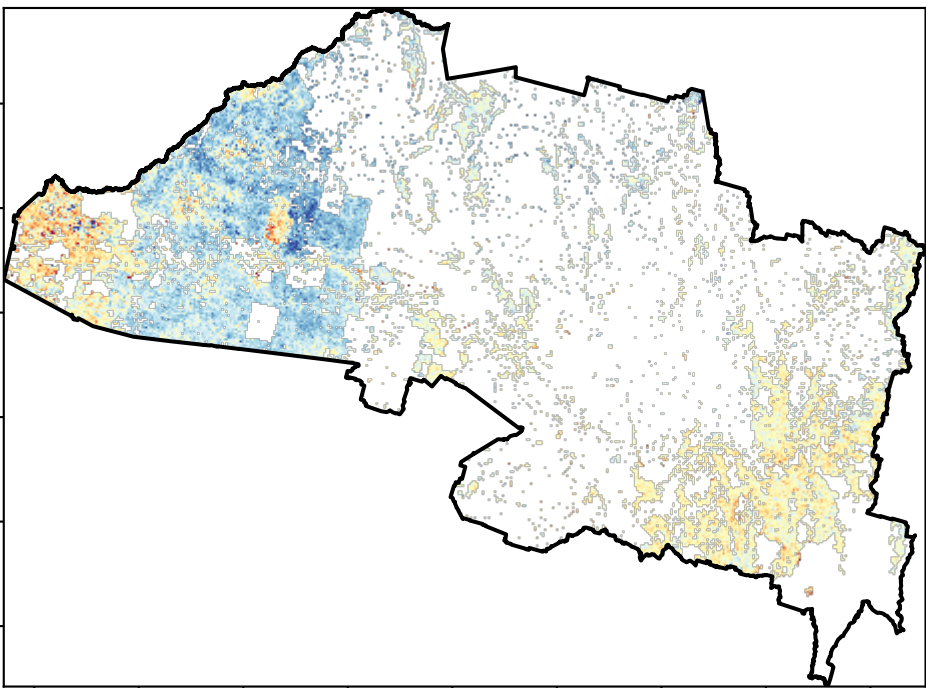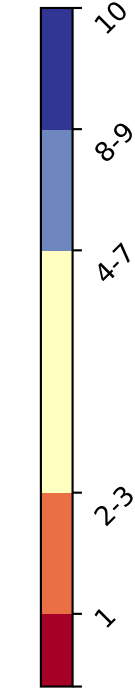
Agriculture timeseries

Proportion of the area protected from wind erosion (Total Vegetation Cover > 50%)

Wind erosion historical monthly area protected (Total Veg Cov >50%)

Proportion of the area protected from water erosion (Total Vegetation Cover > 70%)

Water erosion historical monthly area protected (Total Veg Cov>70%)

Grazing

Land use and forest cover

Catchment Scale Land Use and Forests of Australia (2018) Derived from Catchment Scale Land Use of Australia (2018) and Forests of Australia (2018)

Legend:
1 Agriculture - Grazing - Non forest
2 Agriculture - Grazing - Woodland forest
3 Agriculture - Grazing - Non-woodland forest

Proportion of each land class in area

Total Vegetation Cover [%]

71%-100%
51%-70%
31%-50%
0-30%
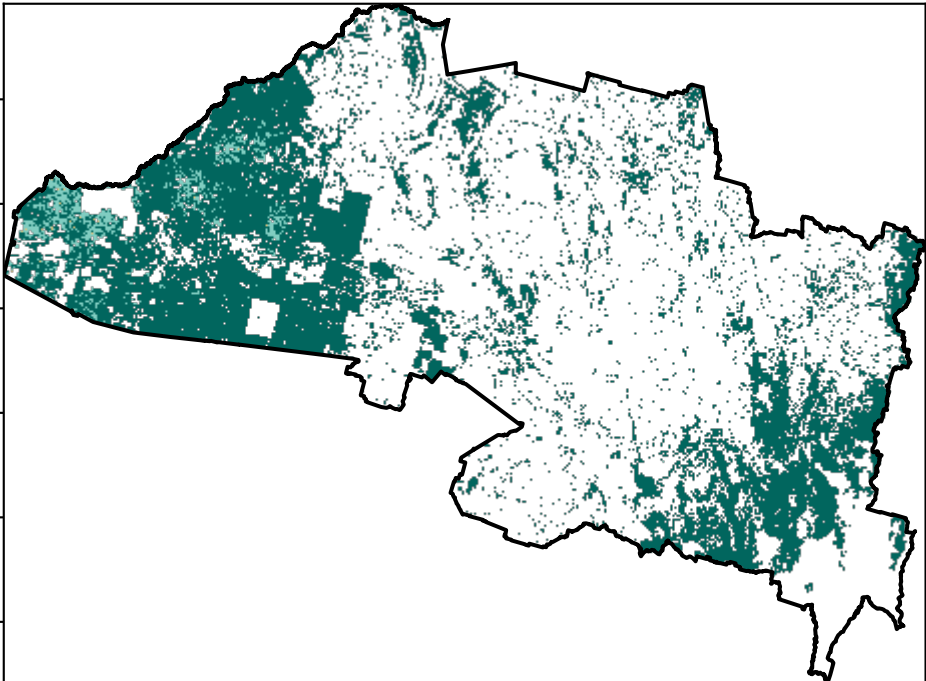
Proportion of vegetation cover class in area

% Area protected from water erosion (>70%)

Area not protected 4.8% of region (110,956 ha)

Area protected 95.2% of region (2,200,643 ha)

% Area protected from wind erosion (>50%)

Area not protected 0.0% of region (0 ha)

Area protected 100.0% of region (2,311,600 ha)

Total Vegetation Cover Anomaly [%]

Anomaly show how many percetage points each pixel is from the mean. That is, red pixels are about 20% lower than the mean of that pixel. The mean is only for the month of the map using baseline from 2001 to 2019.
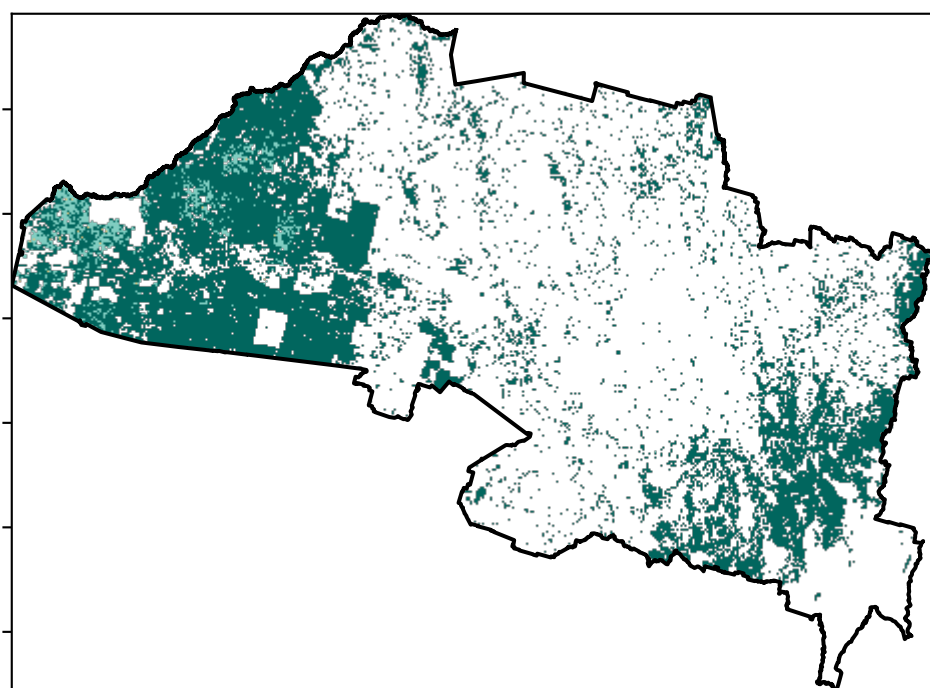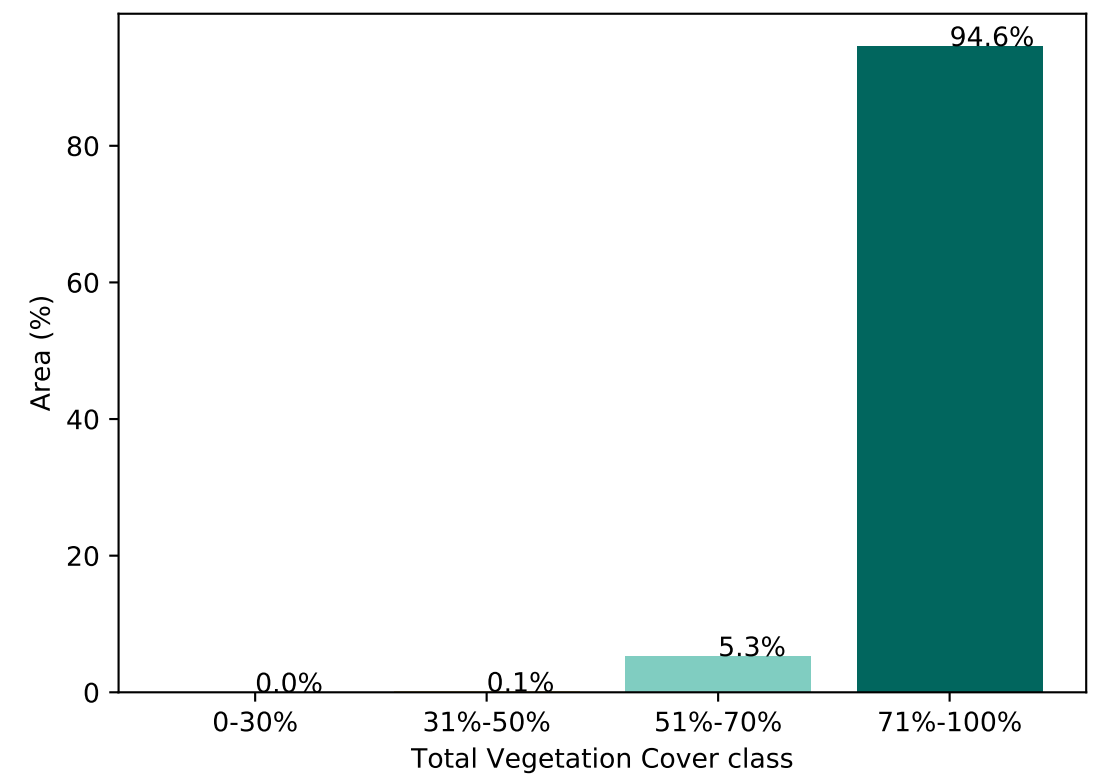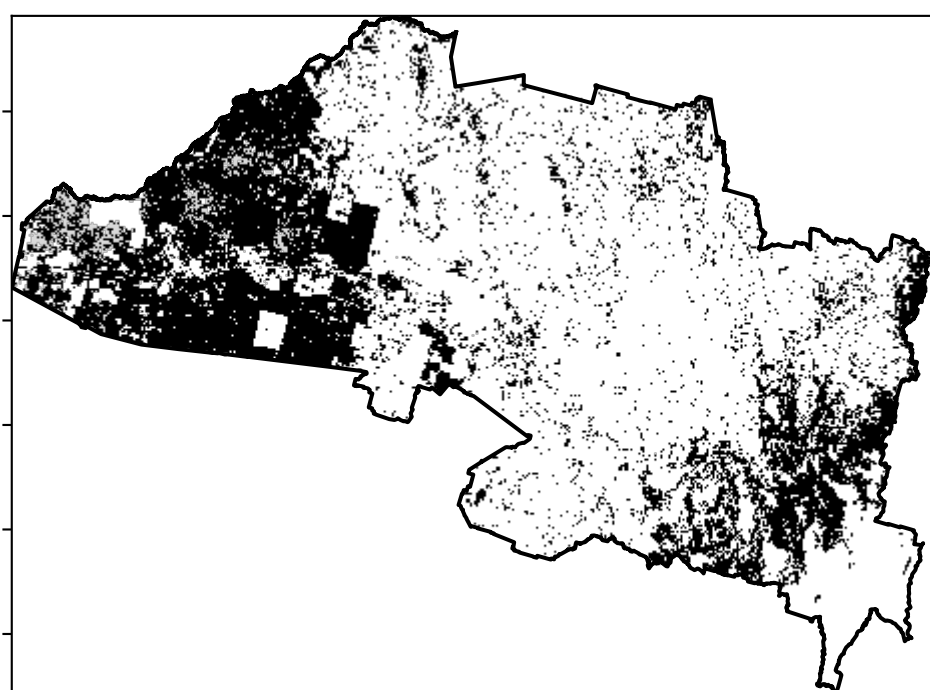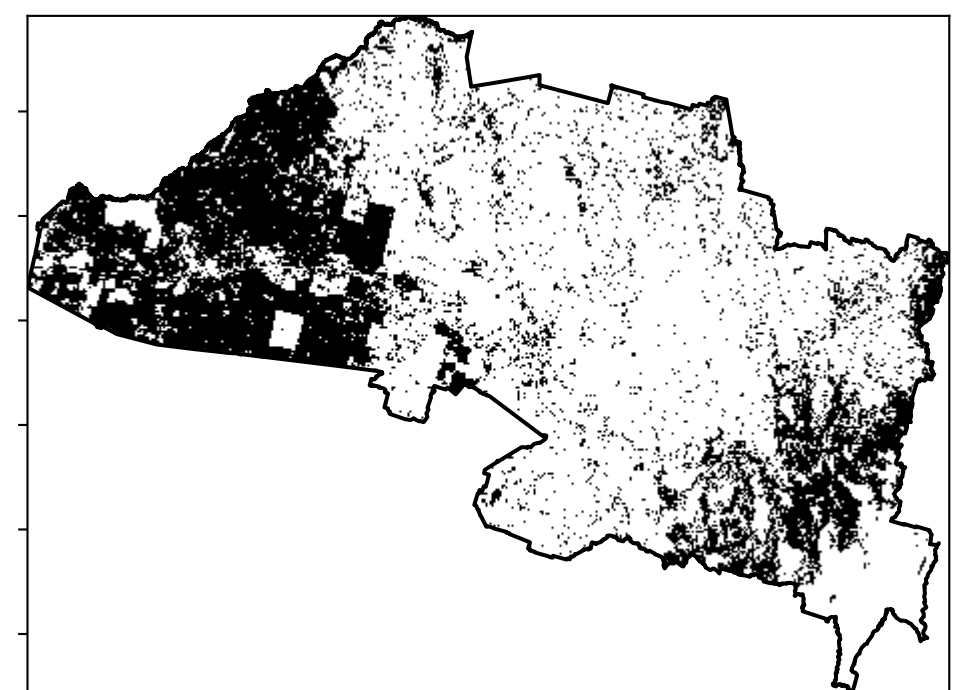
Total Vegetation Cover Decile [%]

Deciles show where the pixel value lies in the record, from highest to lowest, for that month. That is, red pixels are in the lowest 10% of records for that month of the map using baseline from 2001 to 2019.

10
8-9
4-7
2-3
1

Grazing timeseries

Proportion of the area protected from wind erosion (Total Vegetation Cover > 50%)

Wind erosion historical monthly area protected (Total Veg Cov >50%)

Proportion of the area protected from water erosion (Total Vegetation Cover > 70%)

Water erosion historical monthly area protected (Total Veg Cov>70%)

Grazing non forest

Land use and forest cover

Catchment Scale Land Use and Forests of Australia (2018) Derived from Catchment Scale Land Use of Australia (2018) and Forests of Australia (2018)

1 Agriculture - Grazing - Non forest

Total Vegetation Cover [%]

71%-100%

51%-70%

31%-50%

0-30%

Proportion of vegetation cover class in area

Area (%)

94.6%

5.3%

0.0%   0.1%

0-30%   31%-50%   51%-70%   71%-100%

Total Vegetation Cover class

% Area protected from water erosion (>70%)

Area not protected 5.4% of region (111,596 ha)

Area protected 94.6% of region (1,955,003 ha)

% Area protected from wind erosion (>50%)

Area not protected 0.0% of region (0 ha)

Area protected 100.0% of region (2,066,600 ha)

Total Vegetation Cover Anomaly [%]

Anomaly show how many percetage points each pixel is from the mean. That is, red pixels are about 20% lower than the mean of that pixel. The mean is only for the month of the map using baseline from 2001 to 2019.

Total Vegetation Cover Decile [%]

Deciles show where the pixel value lies in the record, from highest to lowest, for that month. That is, red pixels are in the lowest 10% of records for that month of the map using baseline from 2001 to 2019.
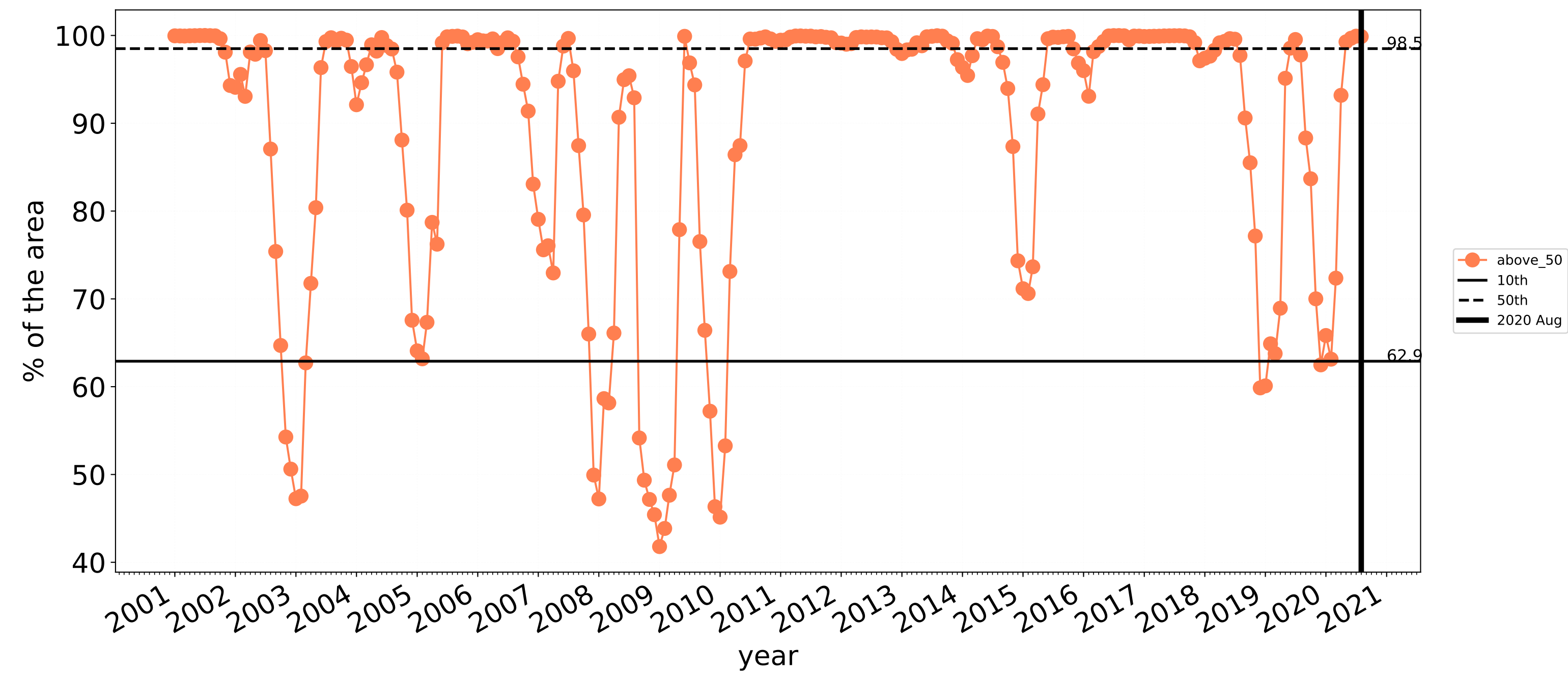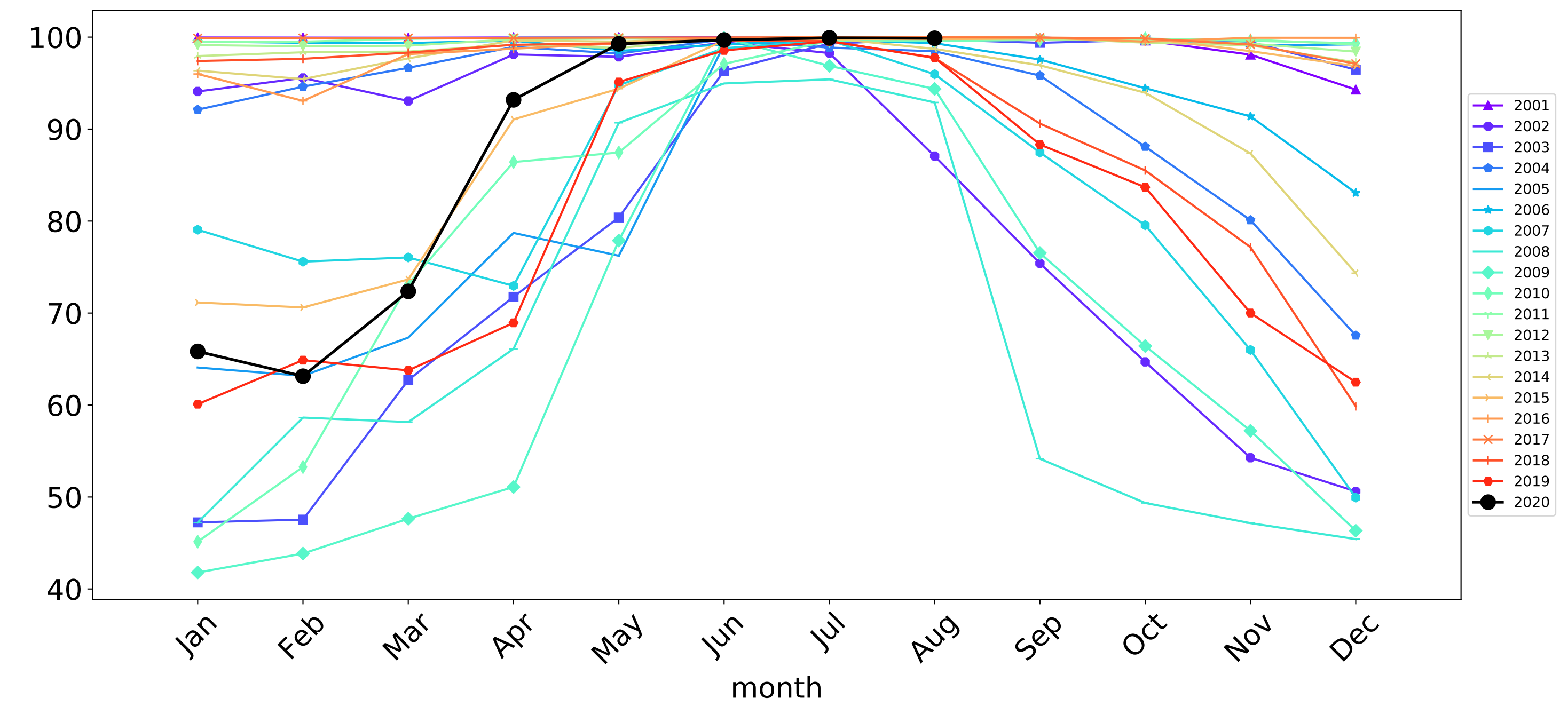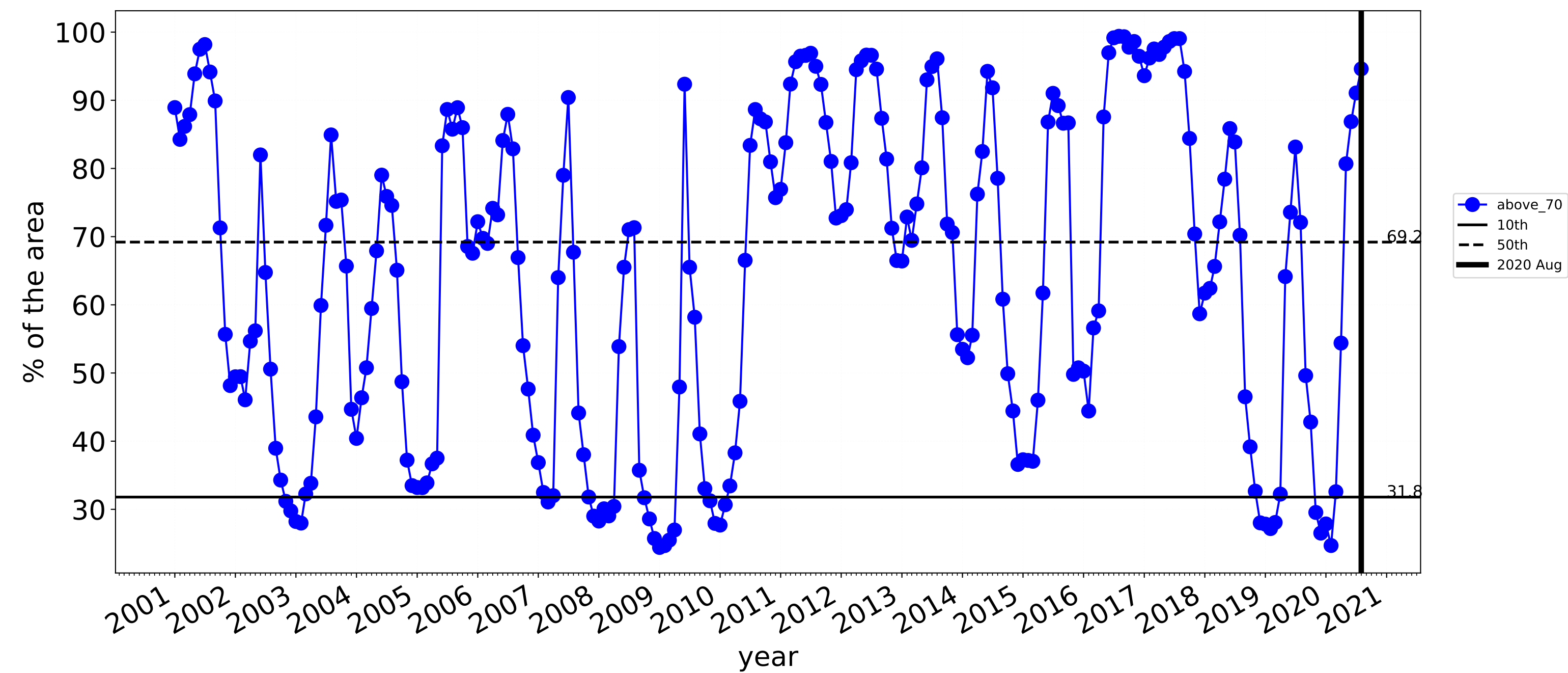
10

8-9

4-7

2-3

1

Grazing non forest timeseries

Proportion of the area protected from wind erosion (Total Vegetation Cover > 50%)
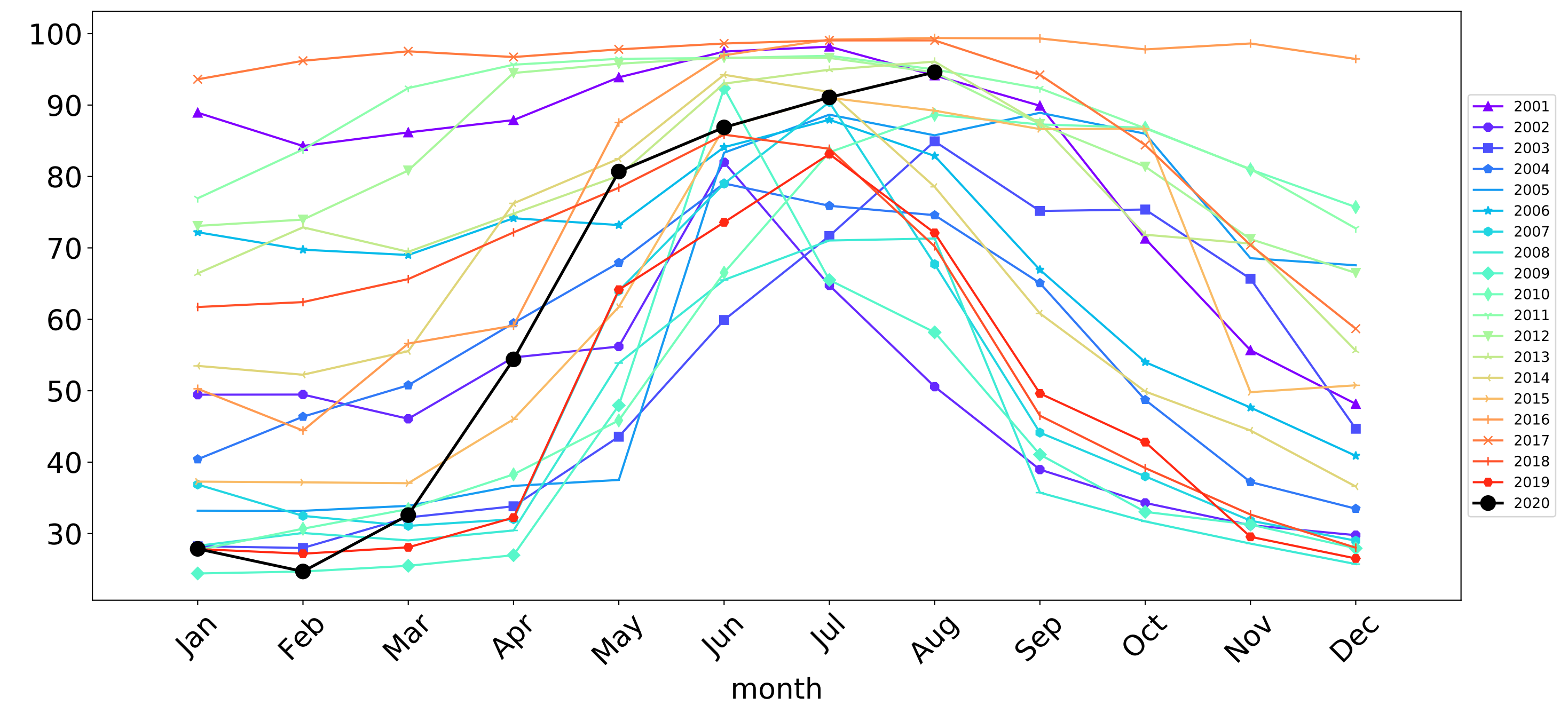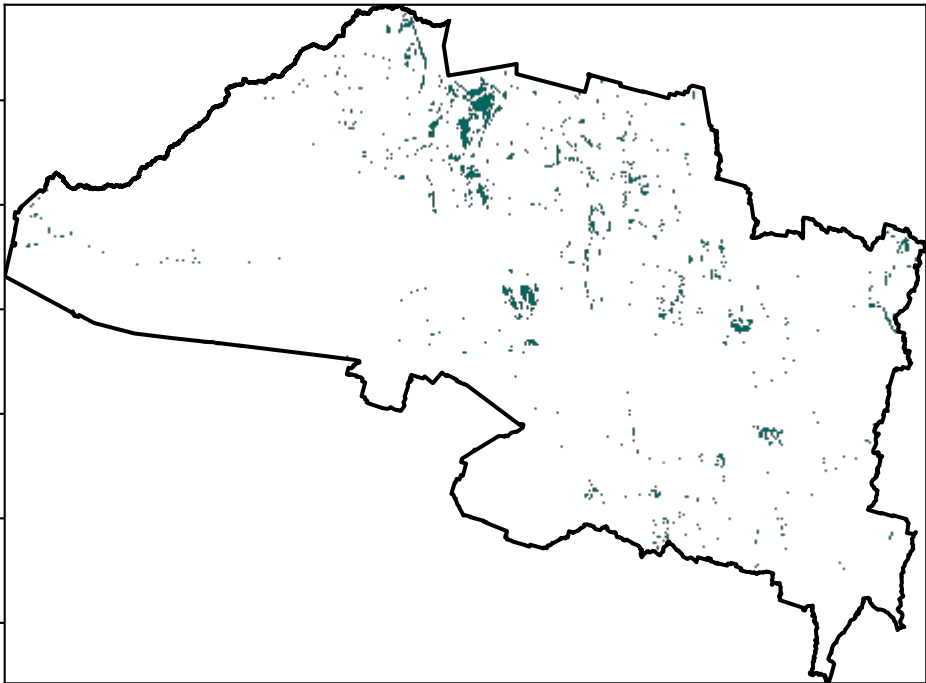
Wind erosion historical monthly area protected (Total Veg Cov >50%)

Proportion of the area protected from water erosion (Total Vegetation Cover > 70%)

Water erosion historical monthly area protected (Total Veg Cov>70%)

Grazing Woodland forest

Land use and forest cover

1 Agriculture - Grazing - Woodland forest

Total Vegetation Cover [%]

71%-100%
51%-70%
31%-50%
0-30%

Proportion of vegetation cover class in area

Bar chart: Area (%) vs Total Vegetation Cover class
- 0-30%: 0.0%
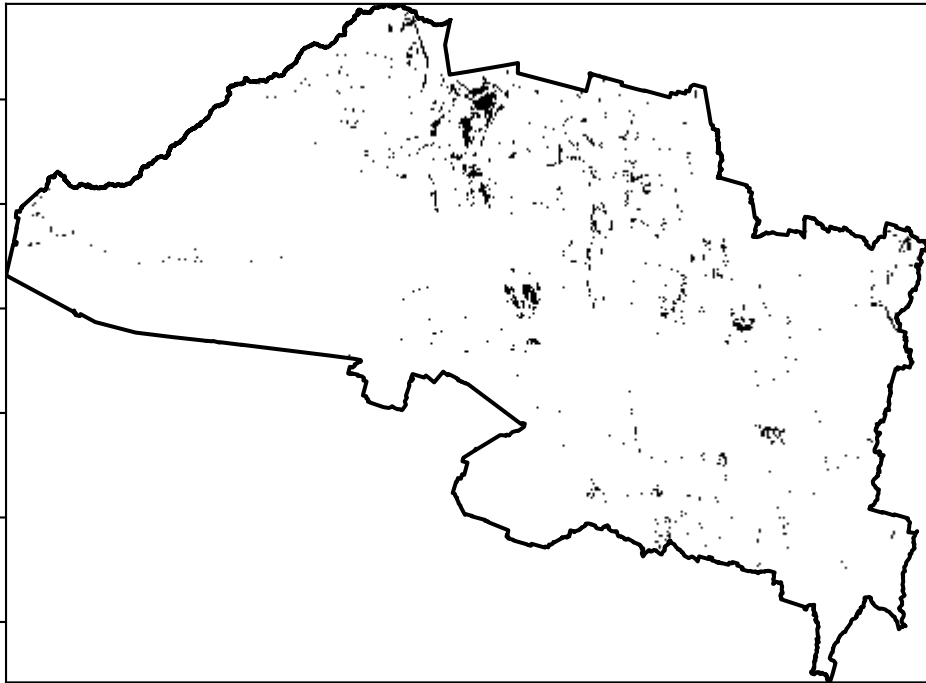- 31%-50%: 0.0%
- 51%-70%: 0.1%
- 71%-100%: 99.9%
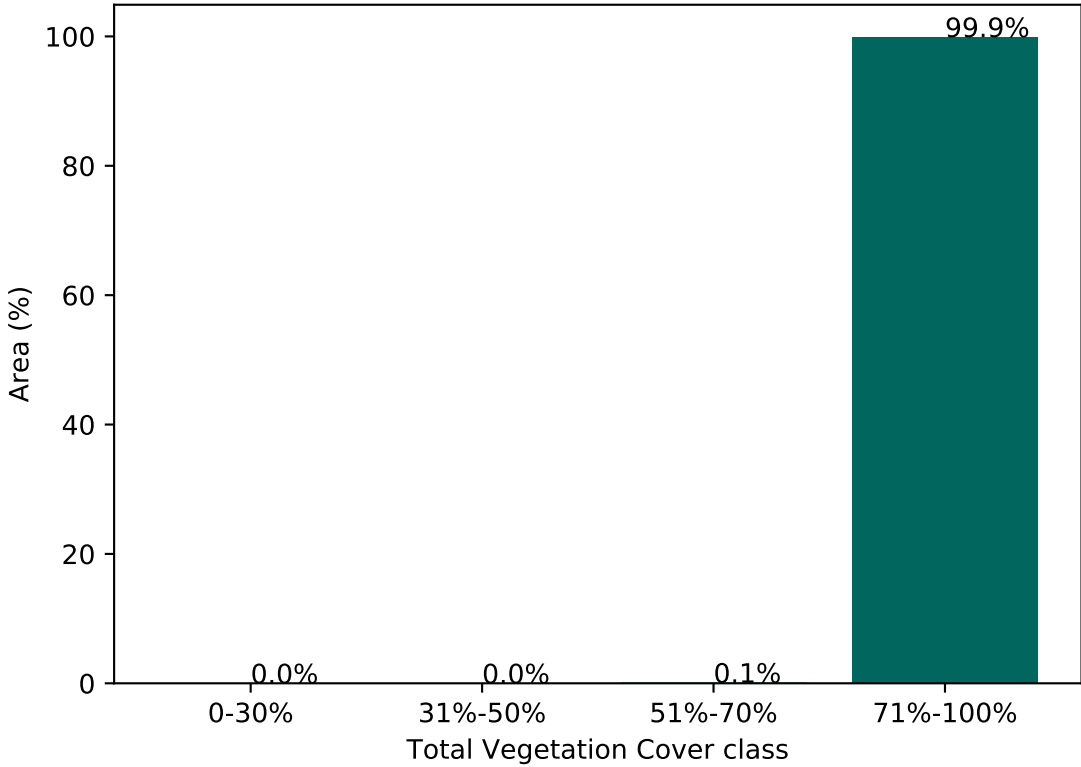
% Area protected from water erosion (>70%)
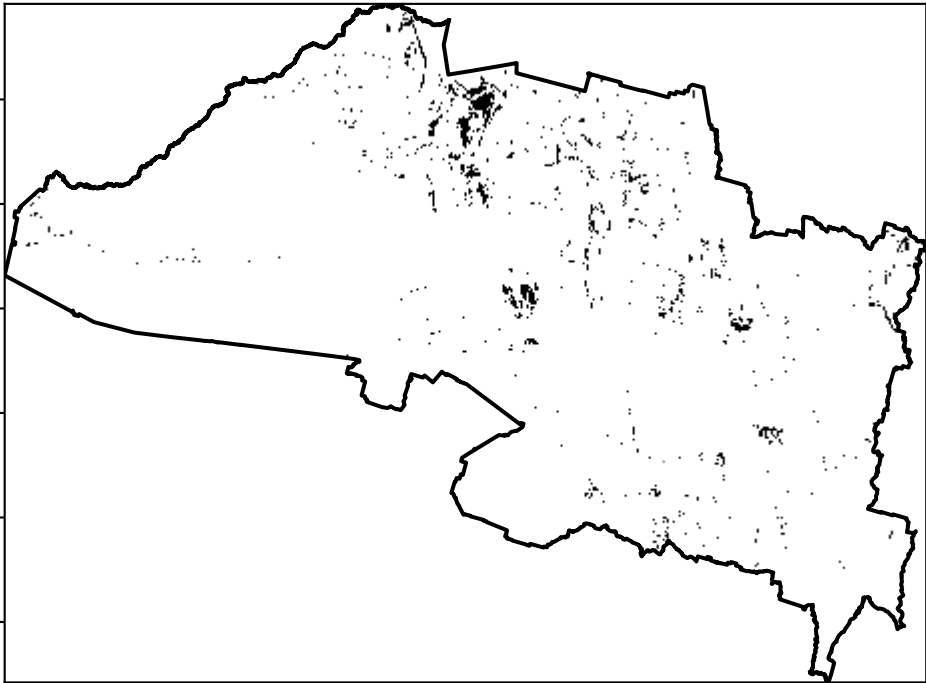
Area not protected 0.1% of region (141 ha)
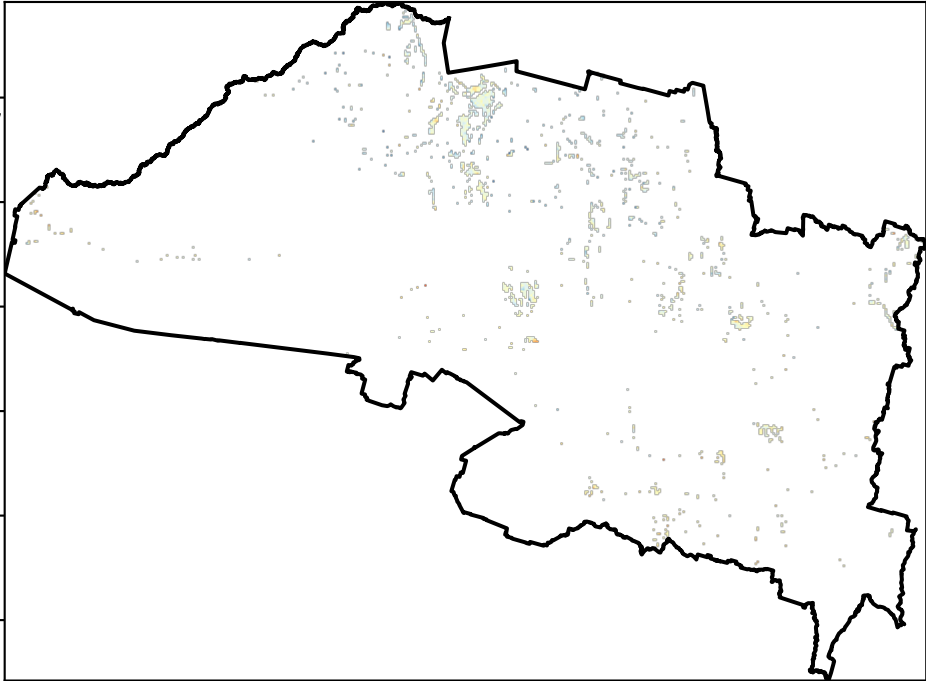
Area protected 99.9% of region (141,508 ha)

% Area protected from wind erosion (>50%)

Area protected 100.0% of region (141,650 ha)
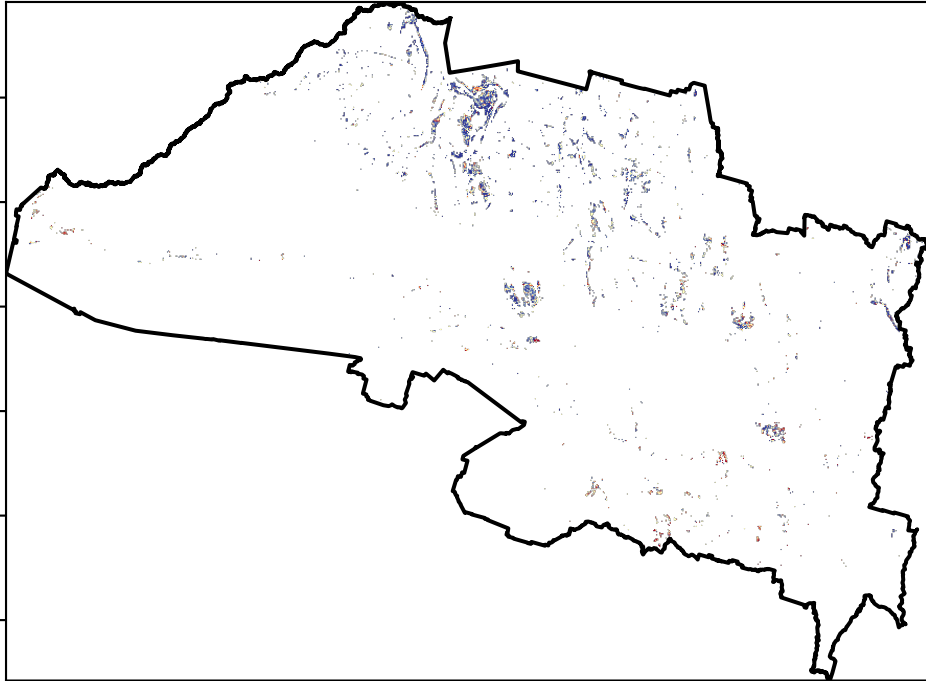
Total Vegetation Cover Anomaly [%]

Anomaly show how many percetage points each pixel is from the mean. That is, red pixels are about 20% lower than the mean of that pixel. The mean is only for the month of the map using baseline from 2001 to 2019.

Total Vegetation Cover Decile [%]

Deciles show where the pixel value lies in the record, from highest to lowest, for that month. That is, red pixels are in the lowest 10% of records for that month of the map using baseline from 2001 to 2019.

10
8-9
4-7
2-3
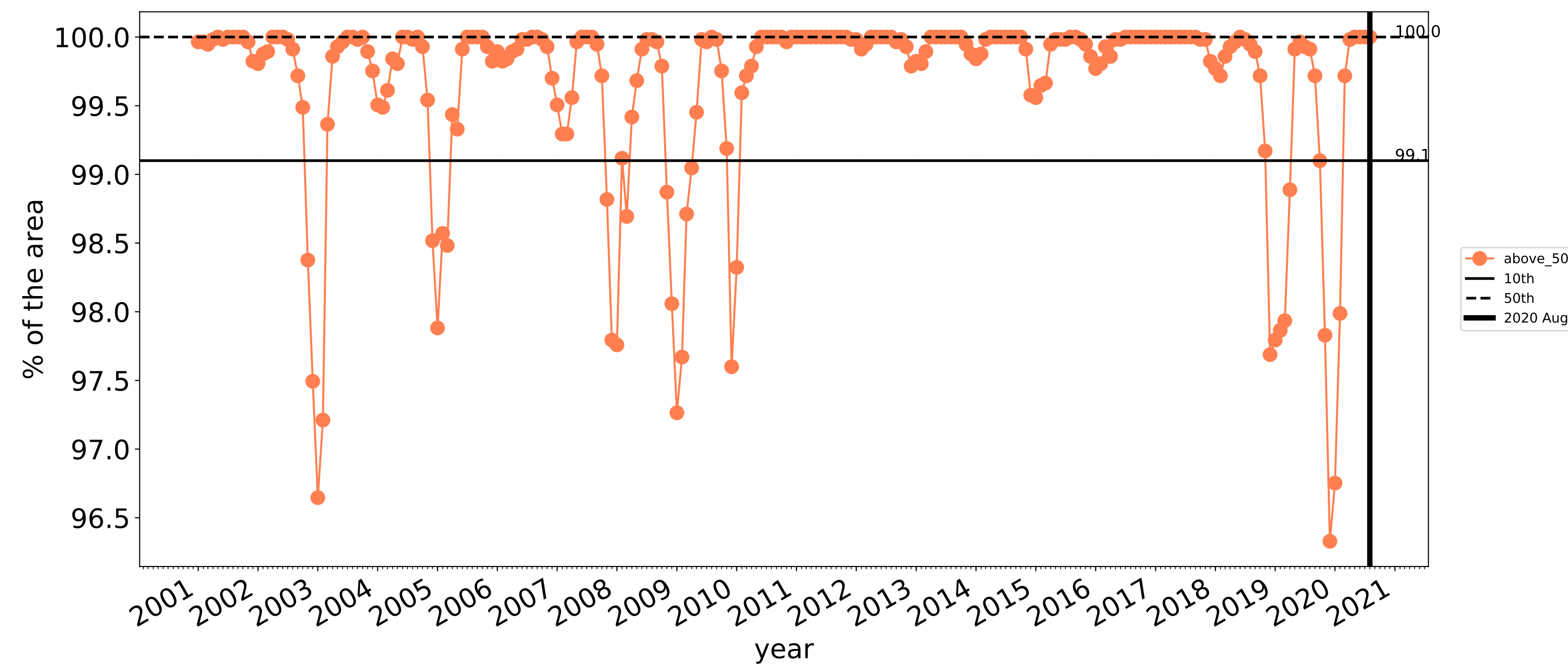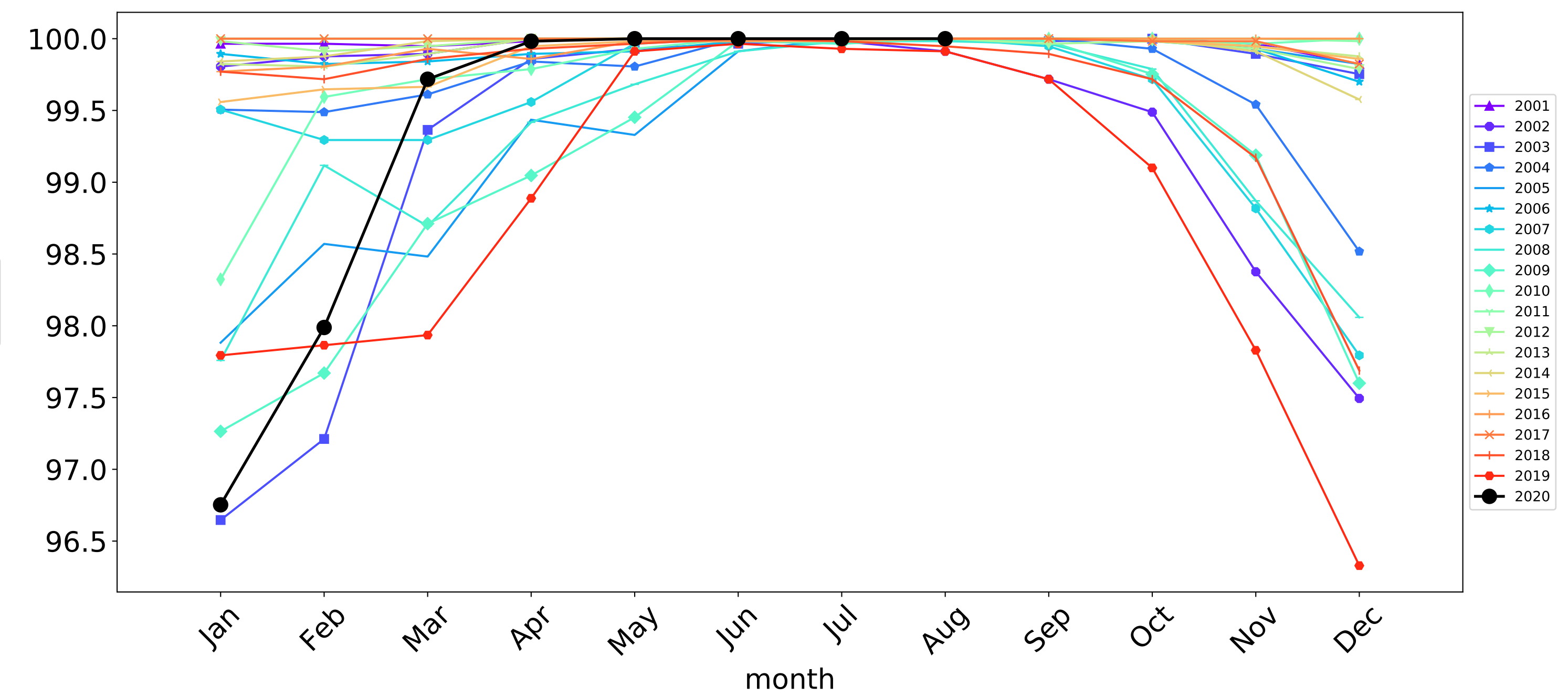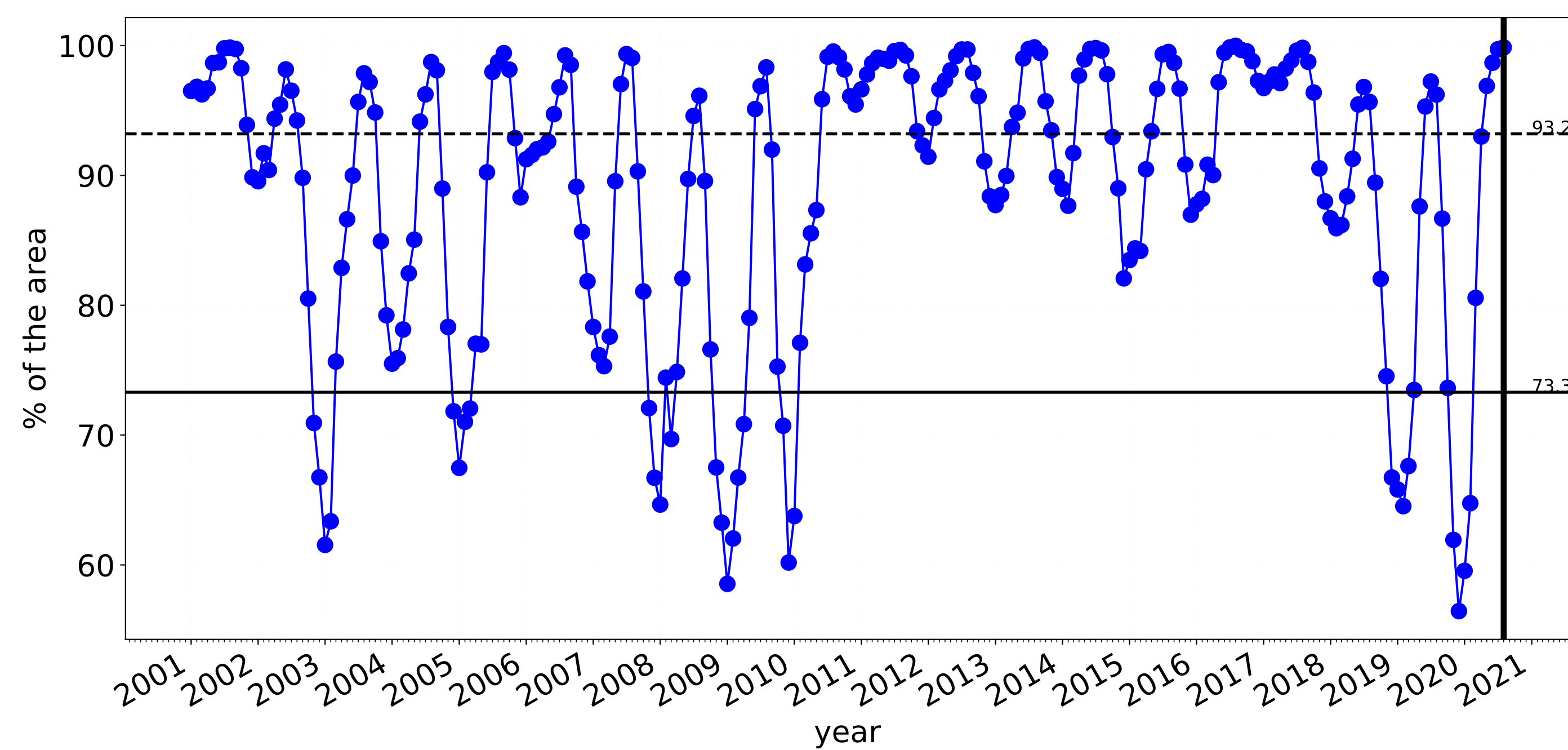1

Grazing Woodland forest timeseries

Proportion of the area protected from wind erosion (Total Vegetation Cover > 50%)
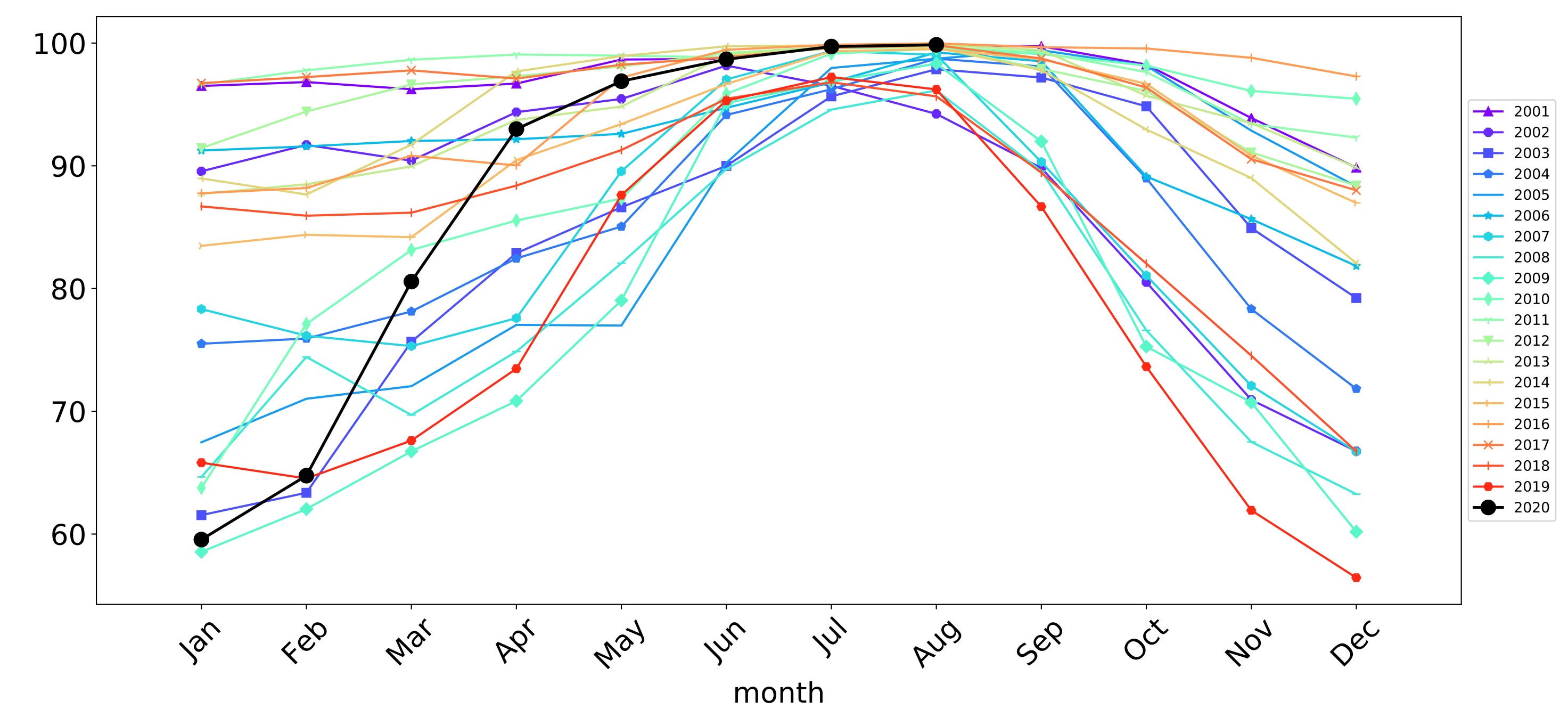

Wind erosion historical monthly area protected (Total Veg Cov >50%)

Proportion of the area protected from water erosion (Total Vegetation Cover > 70%)

Water erosion historical monthly area protected (Total Veg Cov>70%)
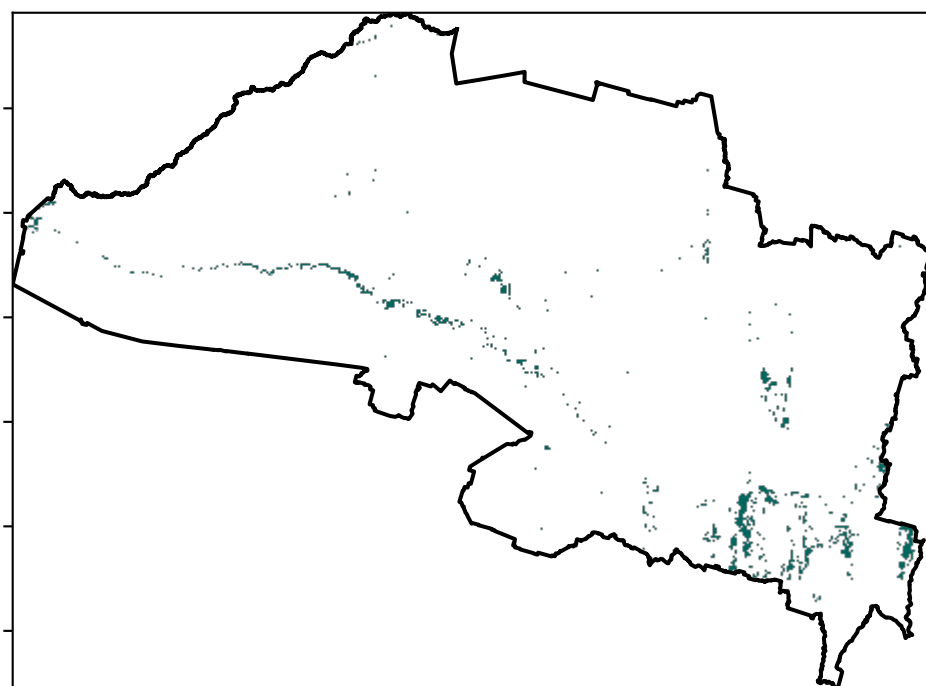
Grazing - Forest (non woodland)

Land use and forest cover

Catchment Scale
Land Use and Forests
of Australia (2018)
Derived from
Catchment Scale Land
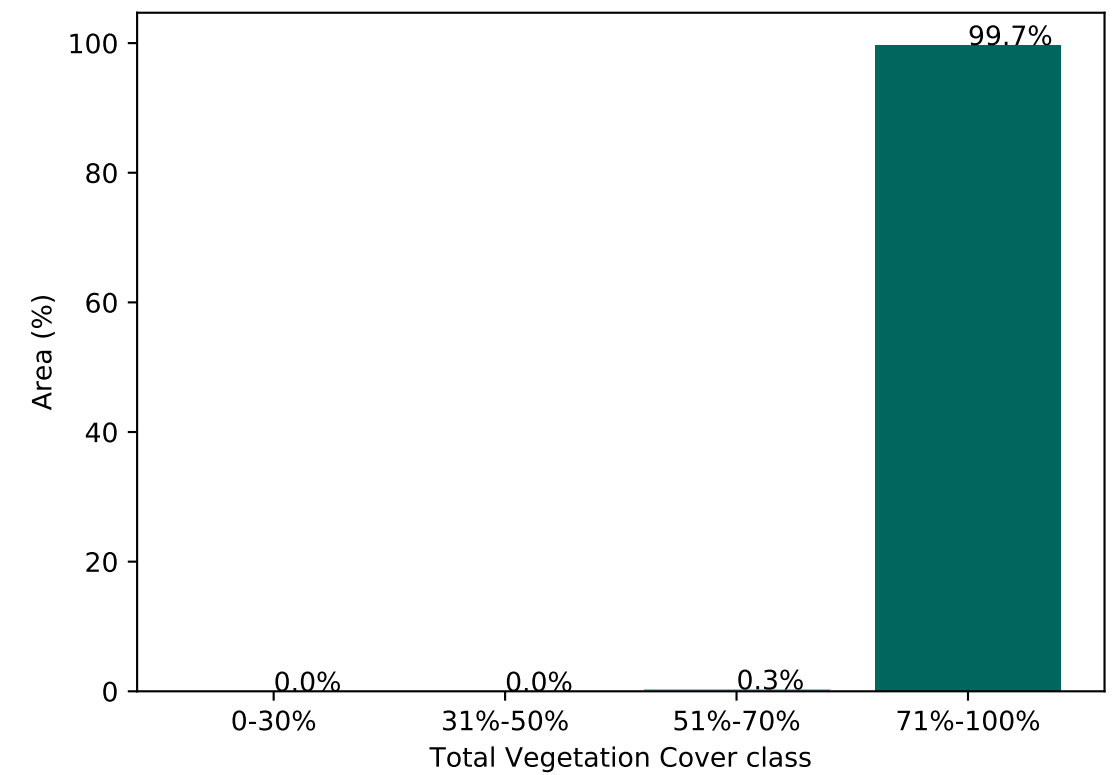Use of Australia
(2018) and Forests
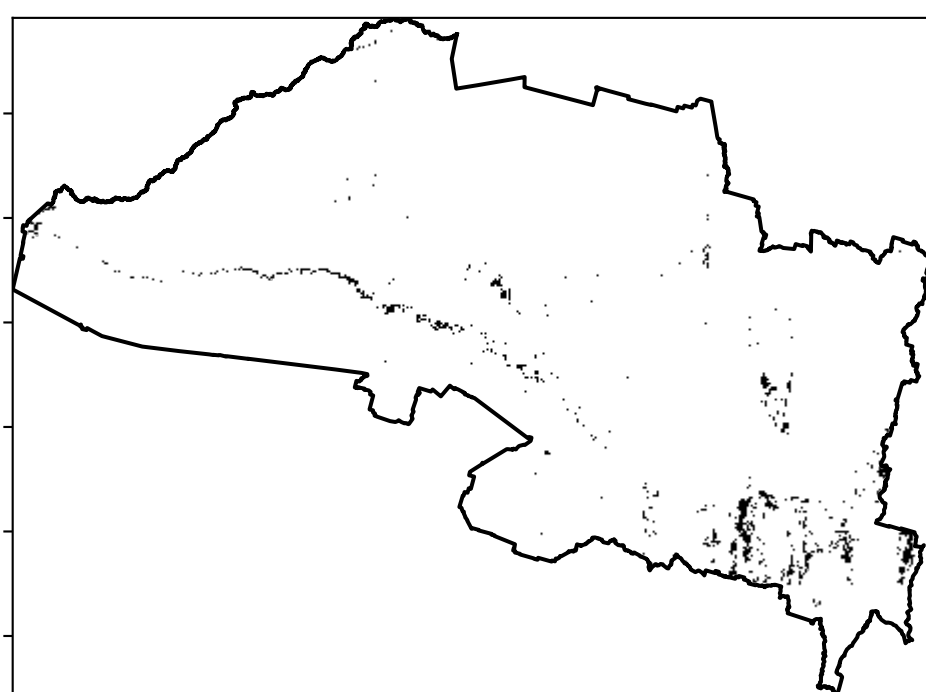of Australia (2018)

1 Agriculture - Grazing - Non-woodland forest

Total Vegetation Cover [%]

71%-100%

51%-70%

31%-50%

0-30%

Proportion of vegetation cover class in area

99.7%

0.0%   0.0%   0.3%

0-30%   31%-50%   51%-70%   71%-100%

Total Vegetation Cover class
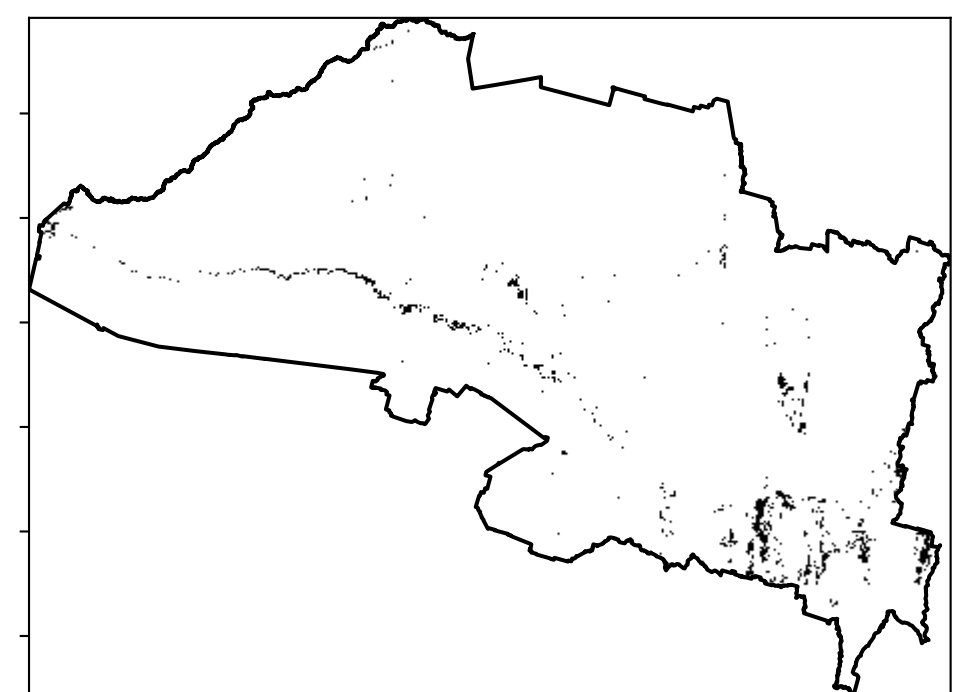
Area (%)

% Area protected from water erosion (>70%)

Area not
protected
0.3% of
region
(310 ha)

Area
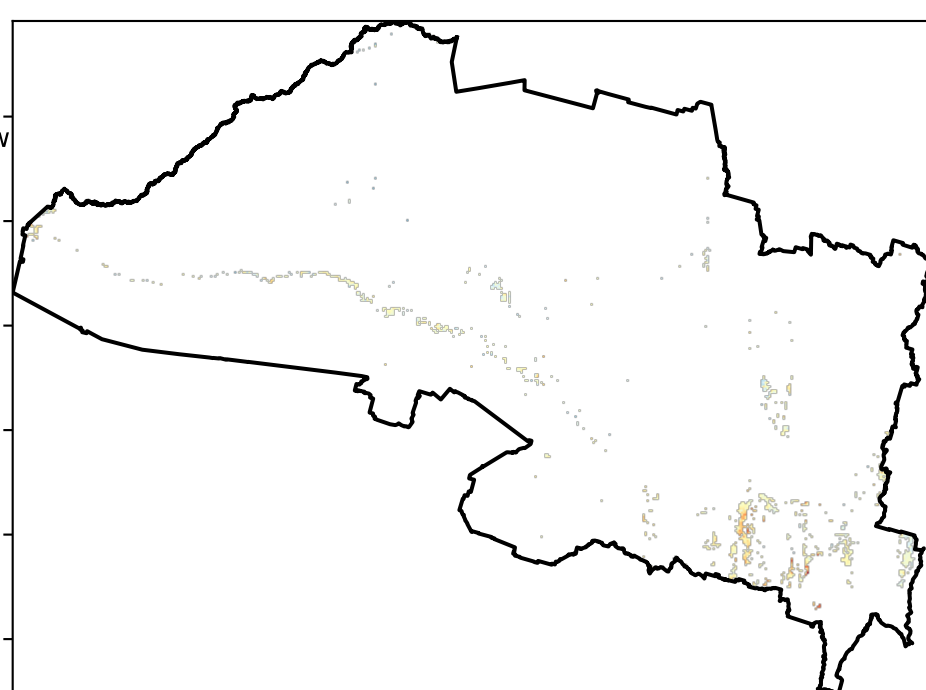protected
99.7% of
region
(103,039
ha)

% Area protected from wind erosion (>50%)
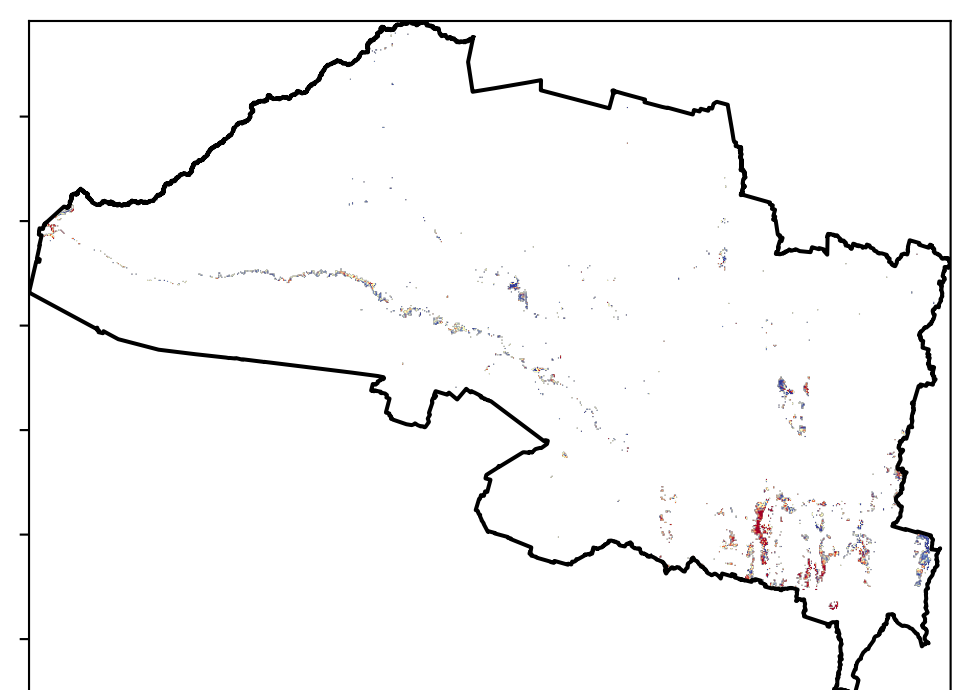
Area
protected
100.0% of
region
(103,350
ha)

Total Vegetation Cover Anomaly [%]

Anomaly show how
many percetage
points each
pixel is from
the mean. That
is, red pixels
are about 20%
lower than the
mean of that
pixel. The mean
is only for the
month of the map
using baseline
from 2001 to
2019.

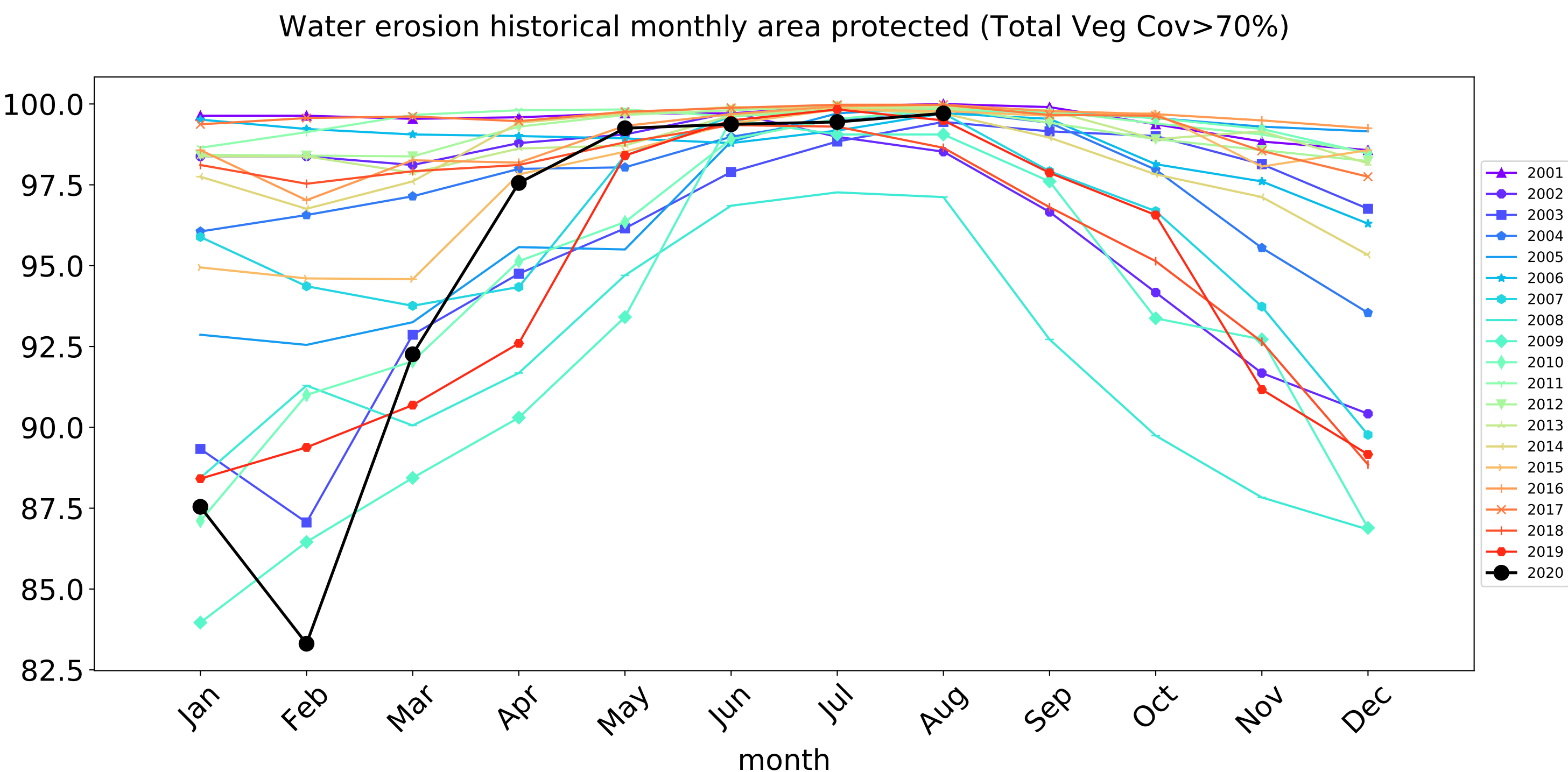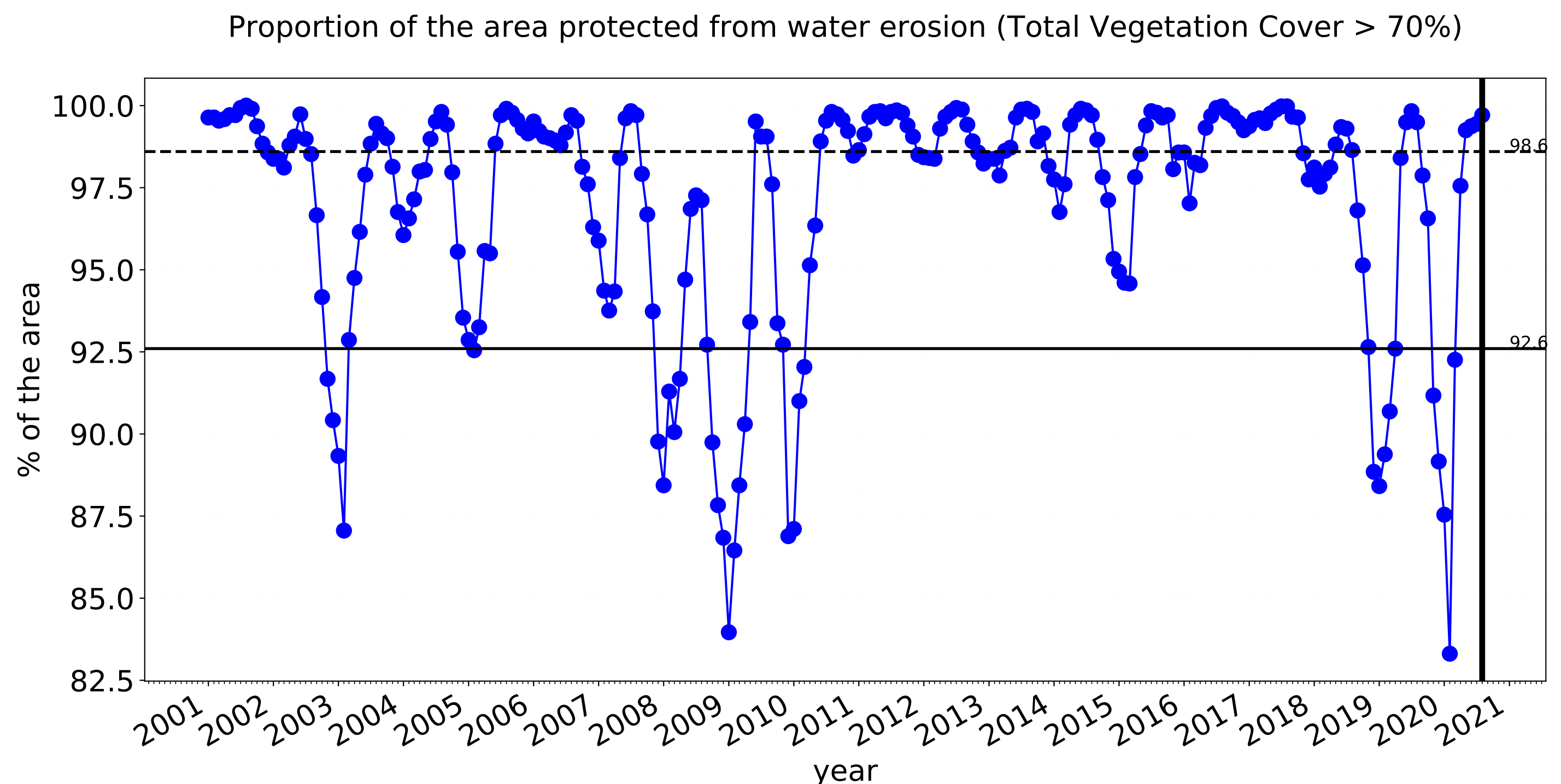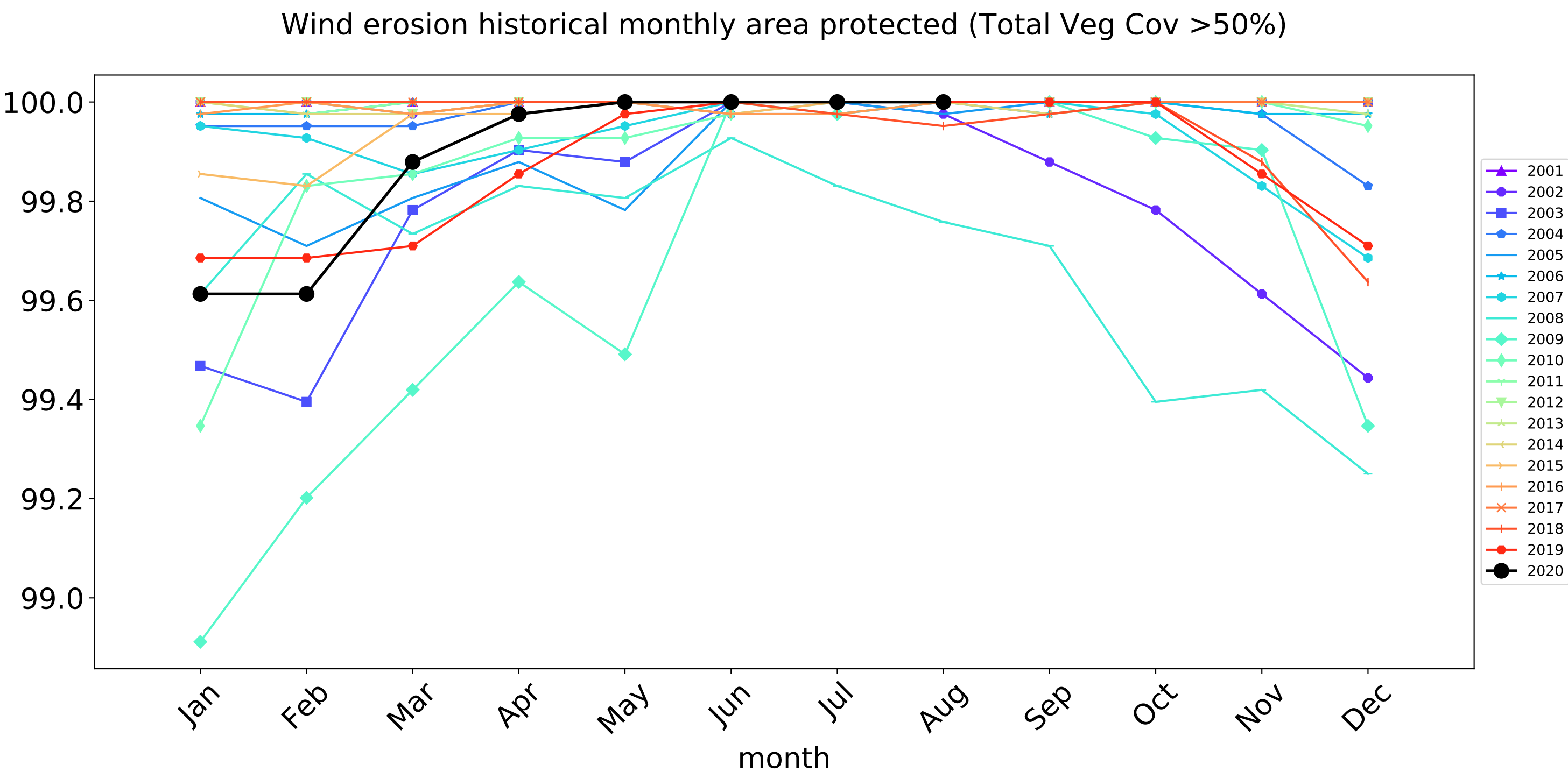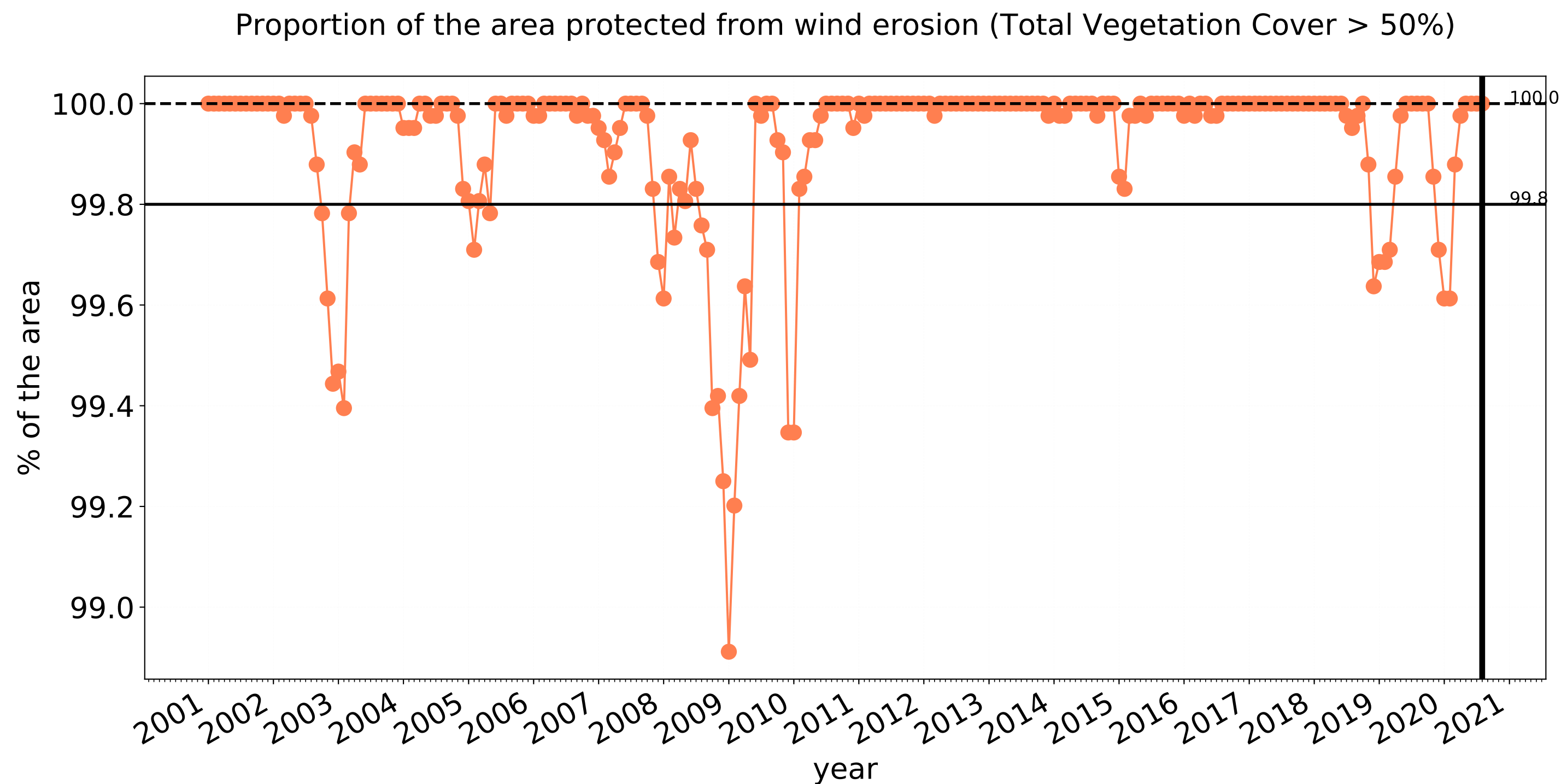### Total Vegetation Cover Decile [%]

Deciles show where the
pixel value lies in the
record, from highest to
lowest, for that month.
That is, red pixels are
in the lowest 10% of
records for that month of
the map using baseline
from 2001 to 2019.

10

8-9

4-7

2-3

1

Grazing - Forest (non woodland) timeseries

Proportion of the area protected from wind erosion (Total Vegetation Cover > 50%)

Wind erosion historical monthly area protected (Total Veg Cov >50%)

Proportion of the area protected from water erosion (Total Vegetation Cover > 70%)

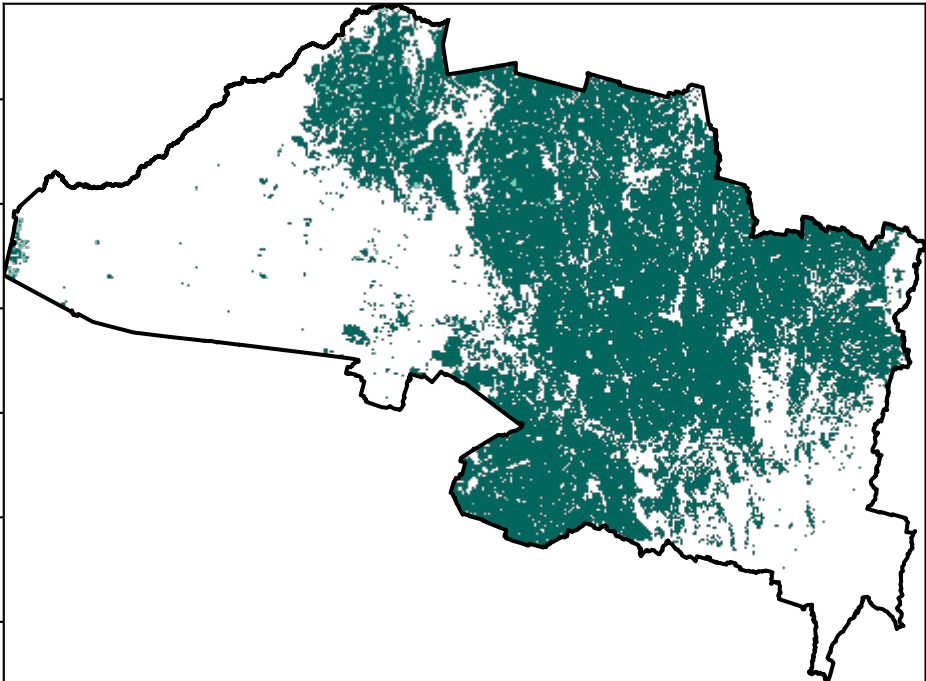## Water erosion historical monthly area protected (Total Veg Cov>70%)

Cropping

Land use and forest cover

Catchment Scale Land Use and Forests of Australia (2018) Derived from Catchment Scale Land Use of Australia (2018) and Forests of Australia (2018)
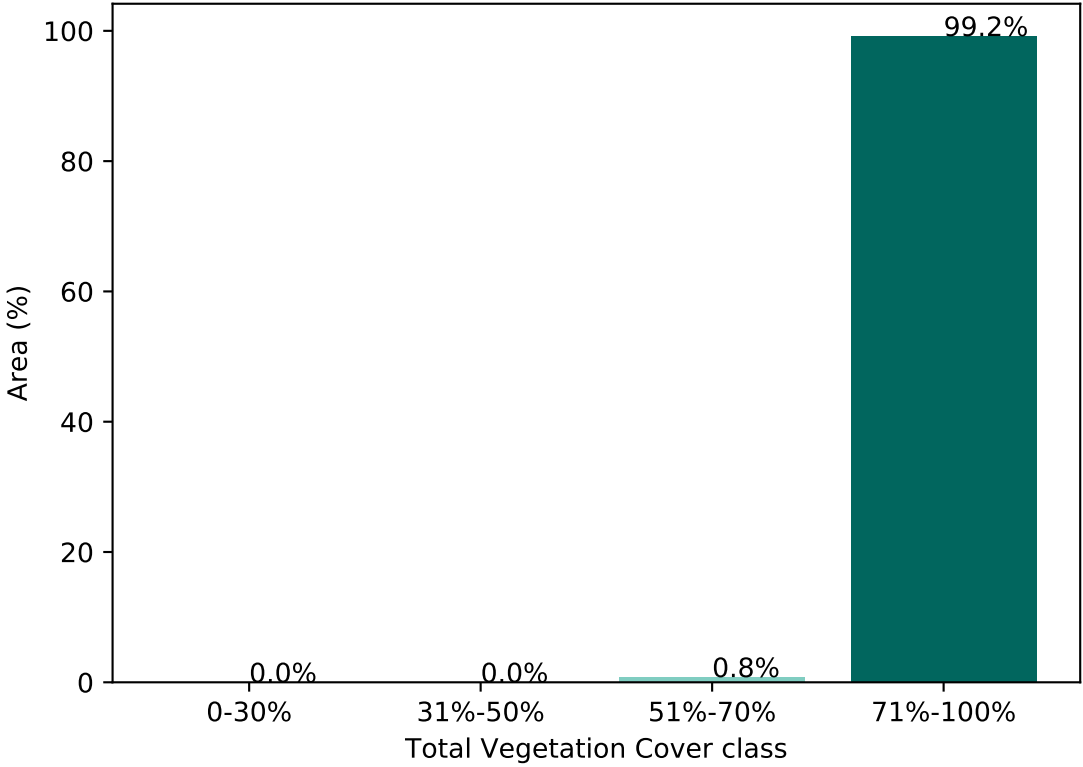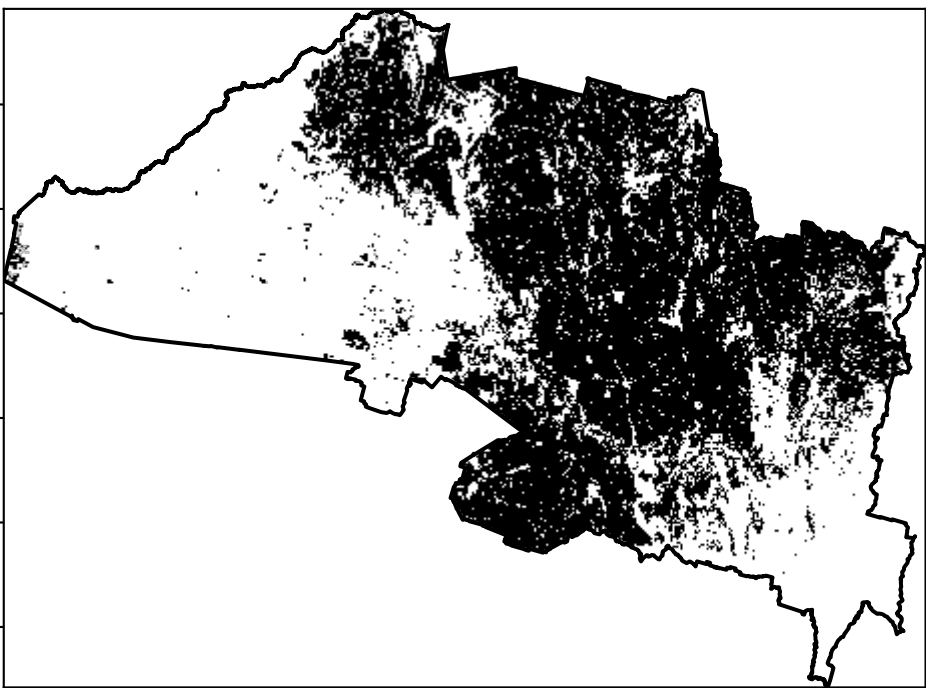
1 Agriculture - Cropping - Non-irrigated

Total Vegetation Cover [%]

71%-100%
51%-70%
31%-50%
0-30%

Proportion of vegetation cover class in area

99.2%

0.0% 0.0% 0.8%

Area (%)

Total Vegetation Cover class
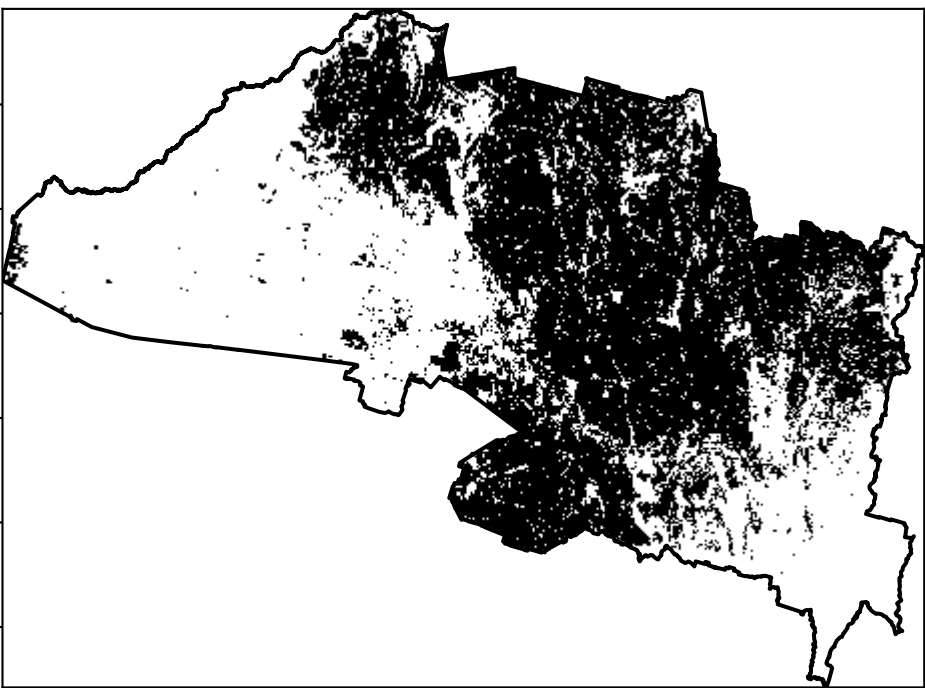
0-30%   31%-50%   51%-70%   71%-100%

% Area protected from water erosion (>70%)

Area not protected 0.8% of region (25,495 ha)

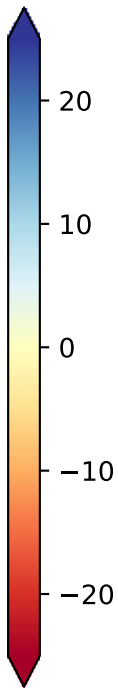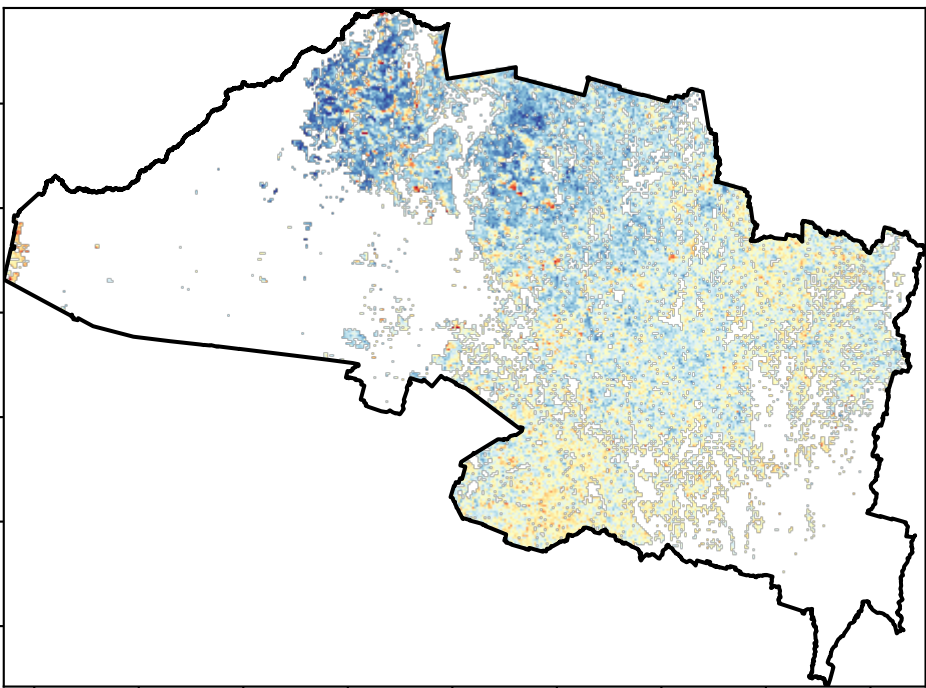Area protected 99.2% of region (3,161,429 ha)

% Area protected from wind erosion (>50%)

Area not protected 0.0% of region (0 ha)
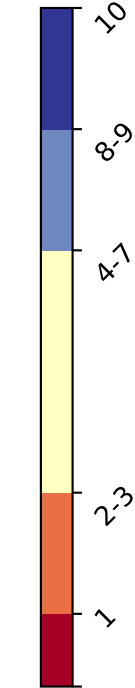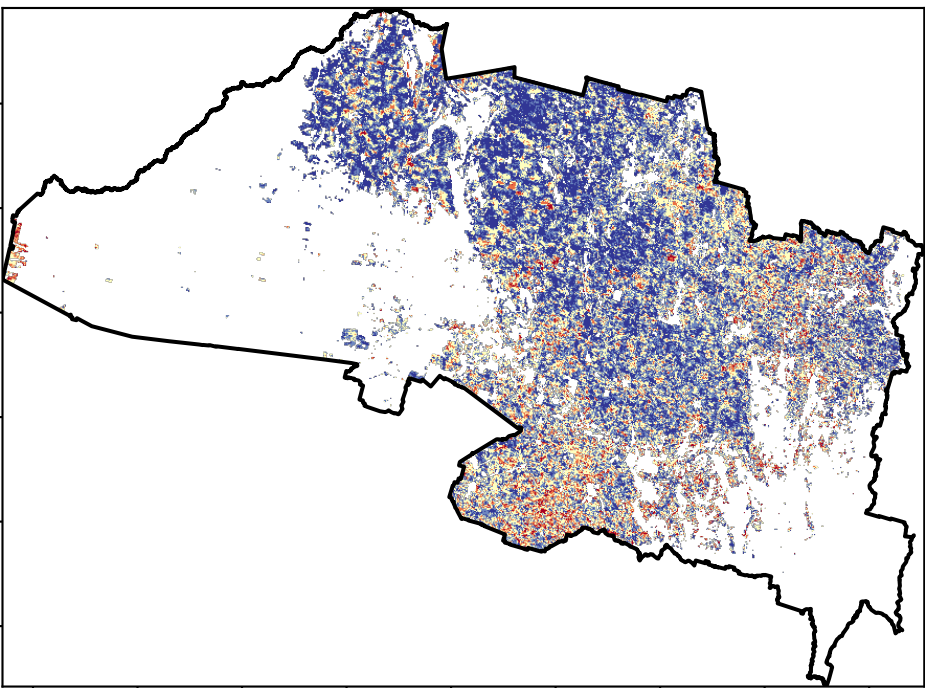
Area protected 100.0% of region (3,186,925 ha)

Total Vegetation Cover Anomaly [%]

Anomaly show how many percetage points each pixel is from the mean. That is, red pixels are about 20% lower than the mean of that pixel. The mean is only for the month of the map using baseline from 2001 to 2019.

Total Vegetation Cover Decile [%]

Deciles show where the pixel value lies in the record, from highest to lowest, for that month. That is, red pixels are in the lowest 10% of records for that month of the map using baseline from 2001 to 2019.

10
8-9
4-7
2-3
1

Cropping timeseries

Proportion of the area protected from wind erosion (Total Vegetation Cover > 50%)

Wind erosion historical monthly area protected (Total Veg Cov >50%)

Proportion of the area protected from water erosion (Total Vegetation Cover > 70%)

Water erosion historical monthly area protected (Total Veg Cov>70%)

Irrigation

Land use and forest cover

Catchment Scale Land Use and Forests of Australia (2018) Derived from Catchment Scale Land Use of Australia (2018) and Forests of Australia (2018)

1 Agriculture - Grazing - Irrigated
2 Agriculture - Cropping - Irrigated
3 Agriculture - Horticulture - Irrigated

Proportion of each land class in area

Total Vegetation Cover [%]

71%-100%
51%-70%
31%-50%
0-30%

Proportion of vegetation cover class in area

% Area protected from water erosion (>70%)

Area not protected 13.3% of region (75,504 ha)

Area protected 86.7% of region (492,195 ha)

% Area protected from wind erosion (>50%)

Area not protected 1.0% of region (5,677 ha)

Area protected 99.0% of region (562,023 ha)

Total Vegetation Cover Anomaly [%]

Anomaly show how many percetage points each pixel is from the mean. That is, red pixels are about 20% lower than the mean of that pixel. The mean is only for the month of the map using baseline from 2001 to 2019.

Total Vegetation Cover Decile [%]

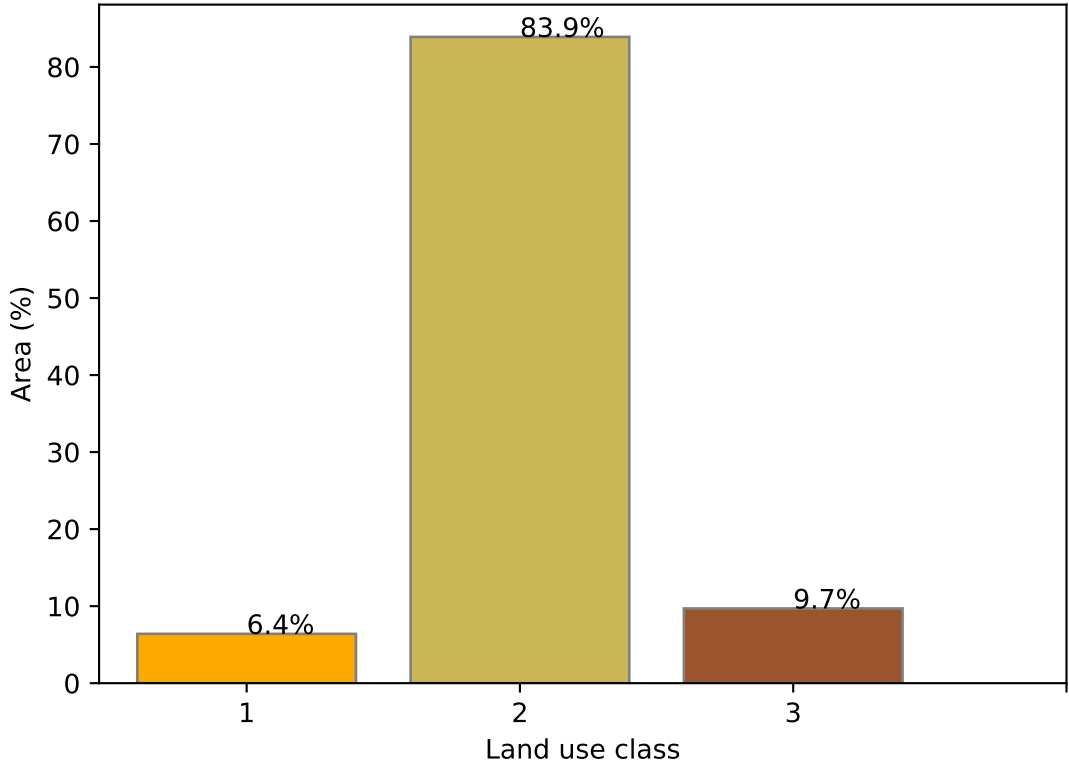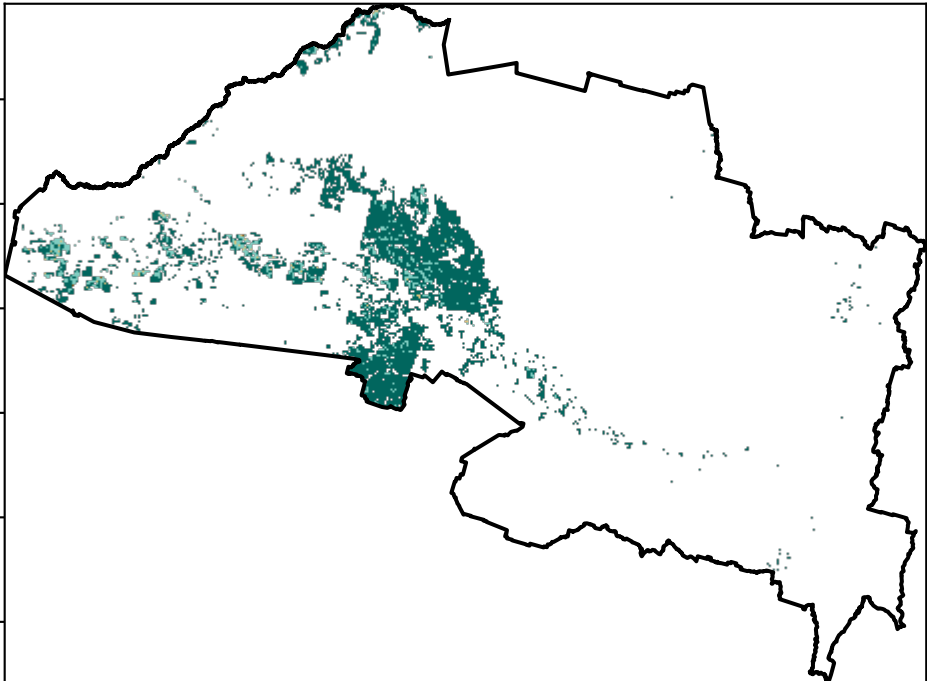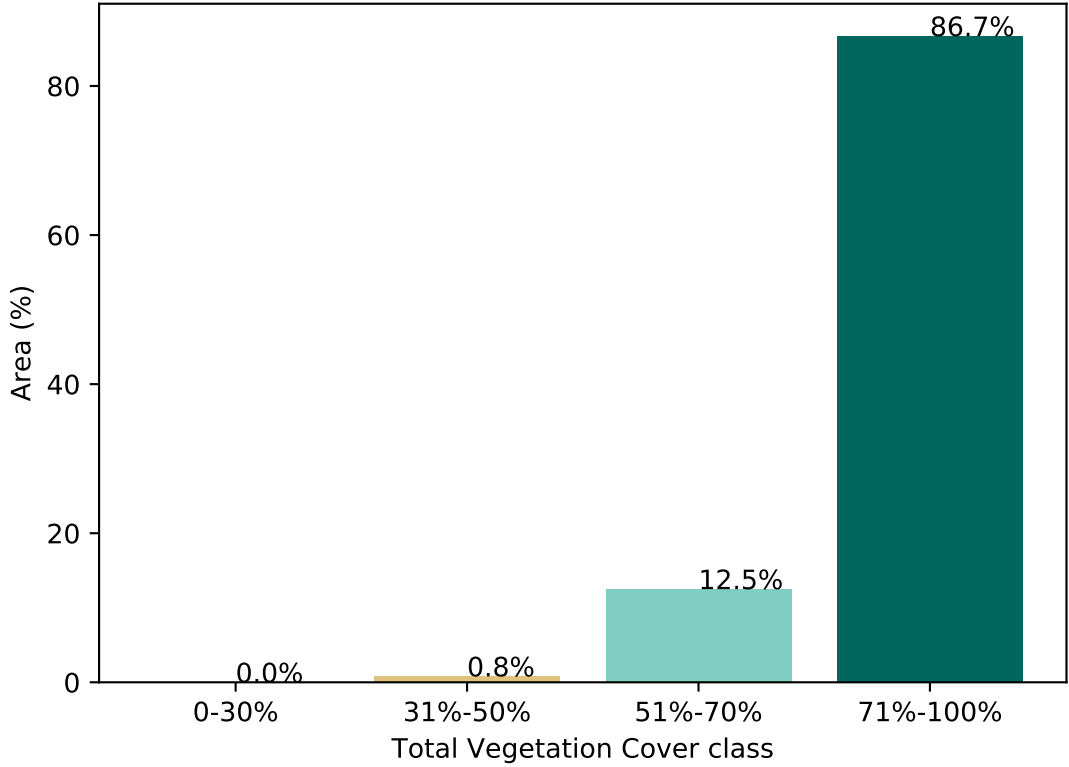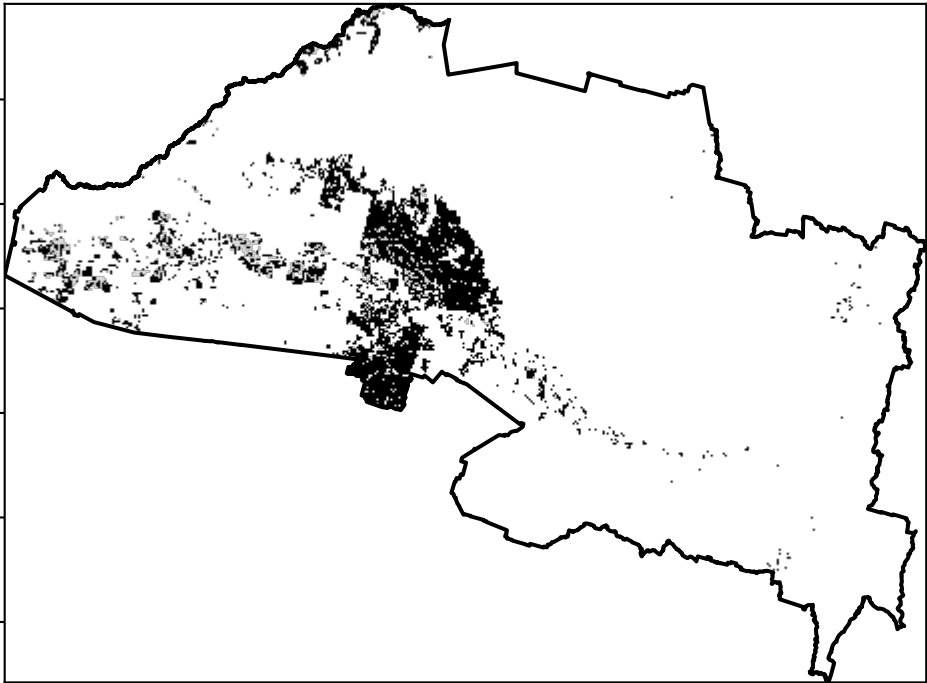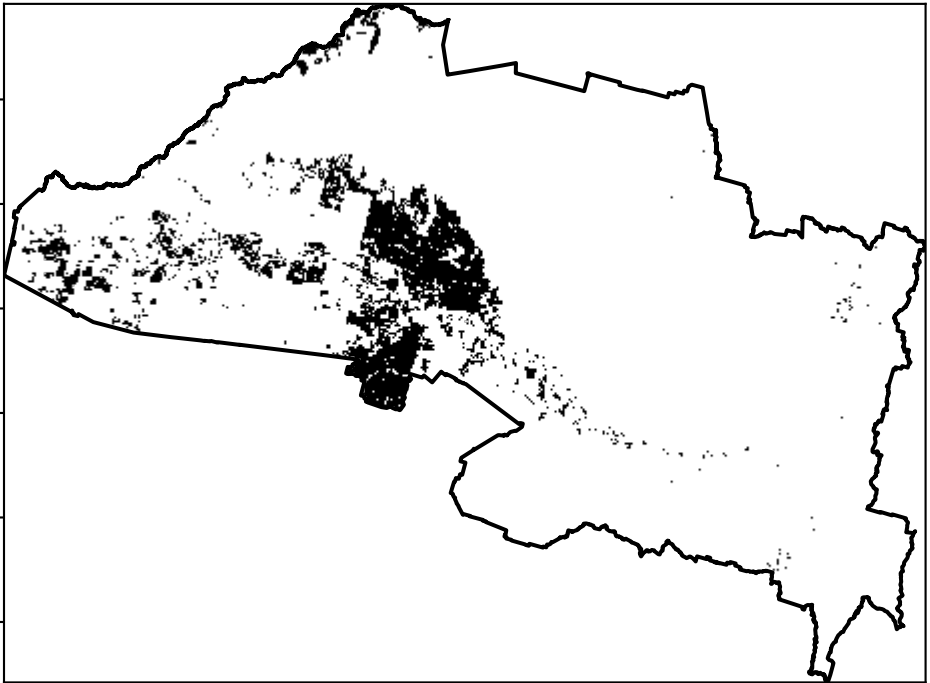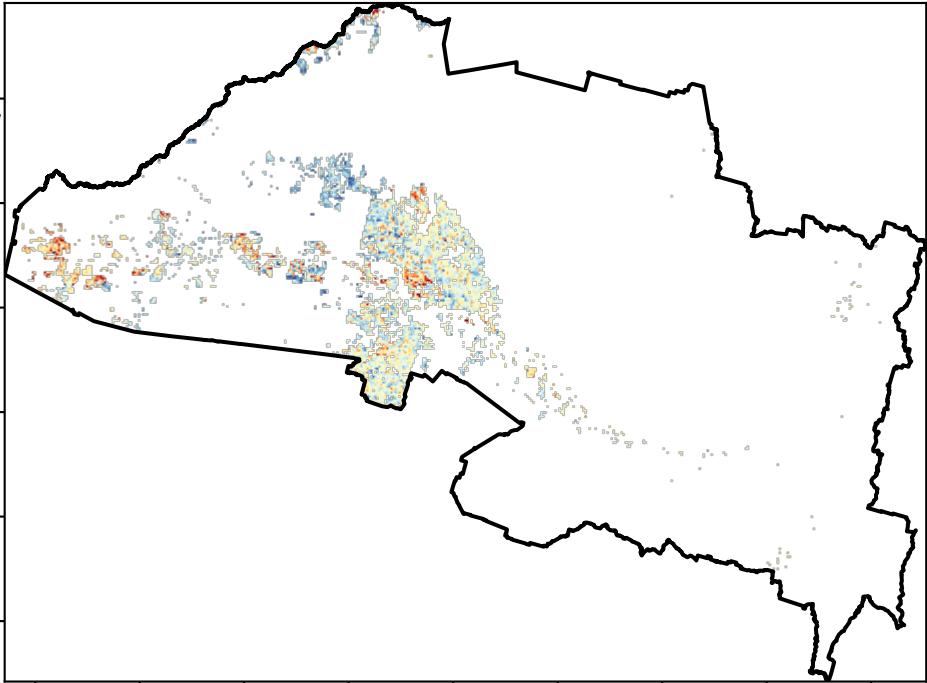Deciles show where the pixel value lies in the record, from highest to lowest, for that month. That is, red pixels are in the lowest 10% of records for that month of the map using baseline from 2001 to 2019.

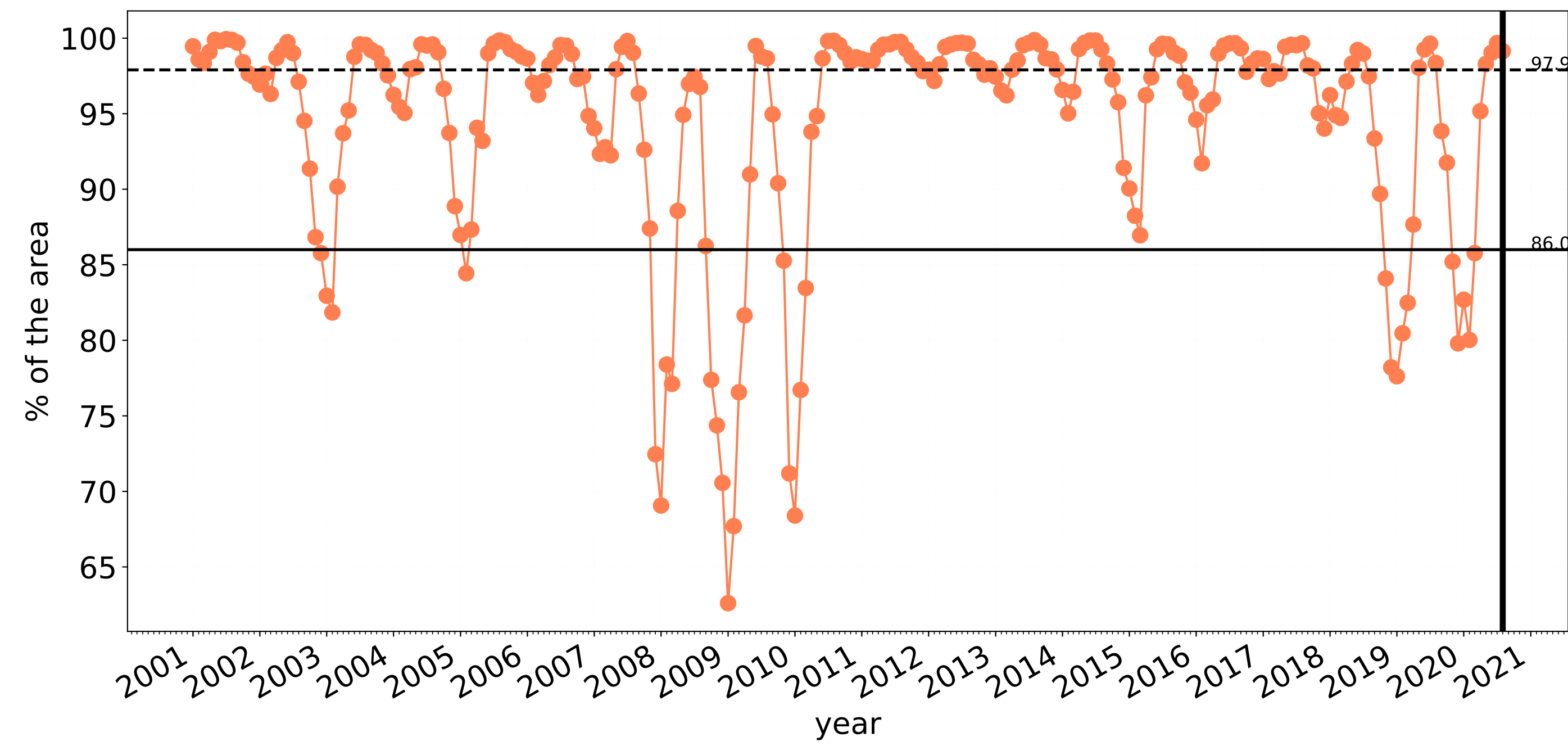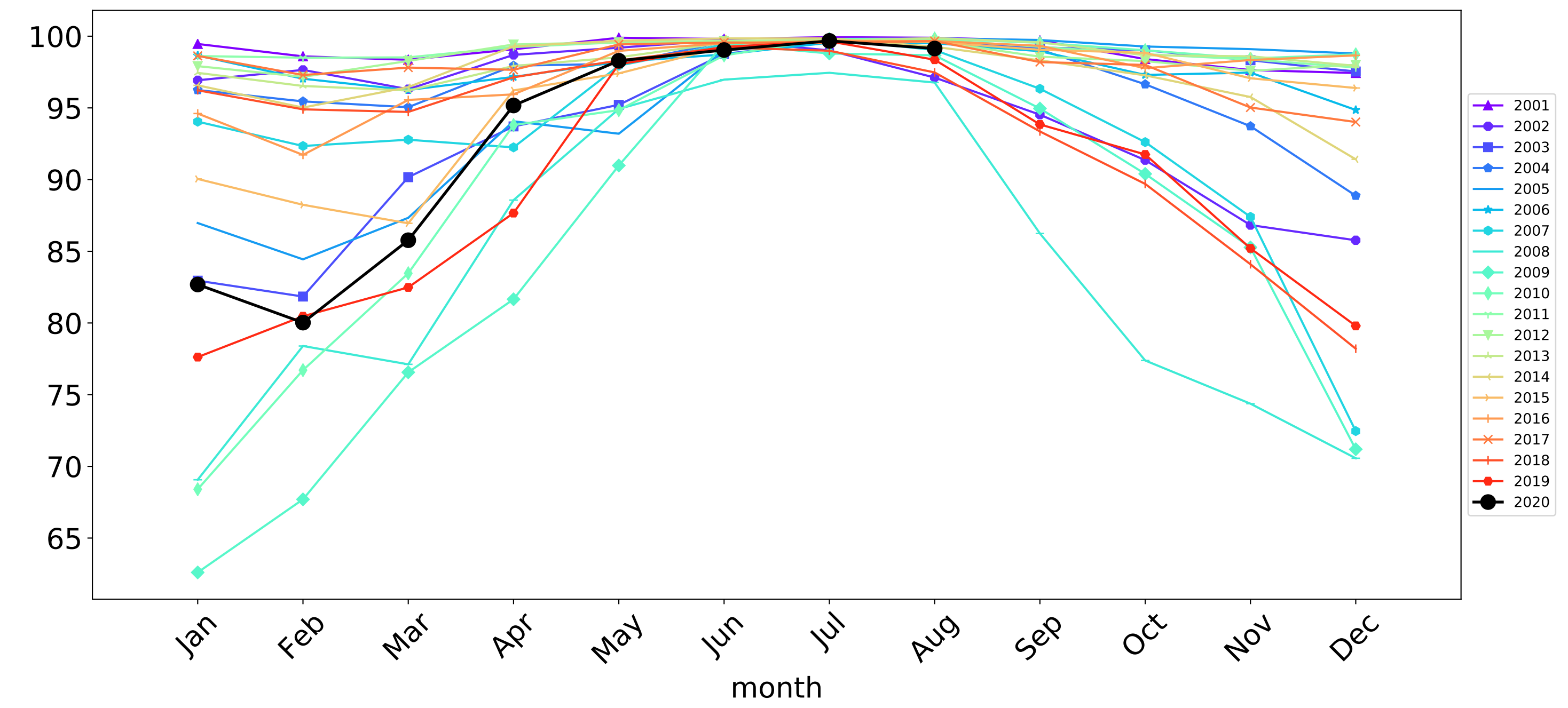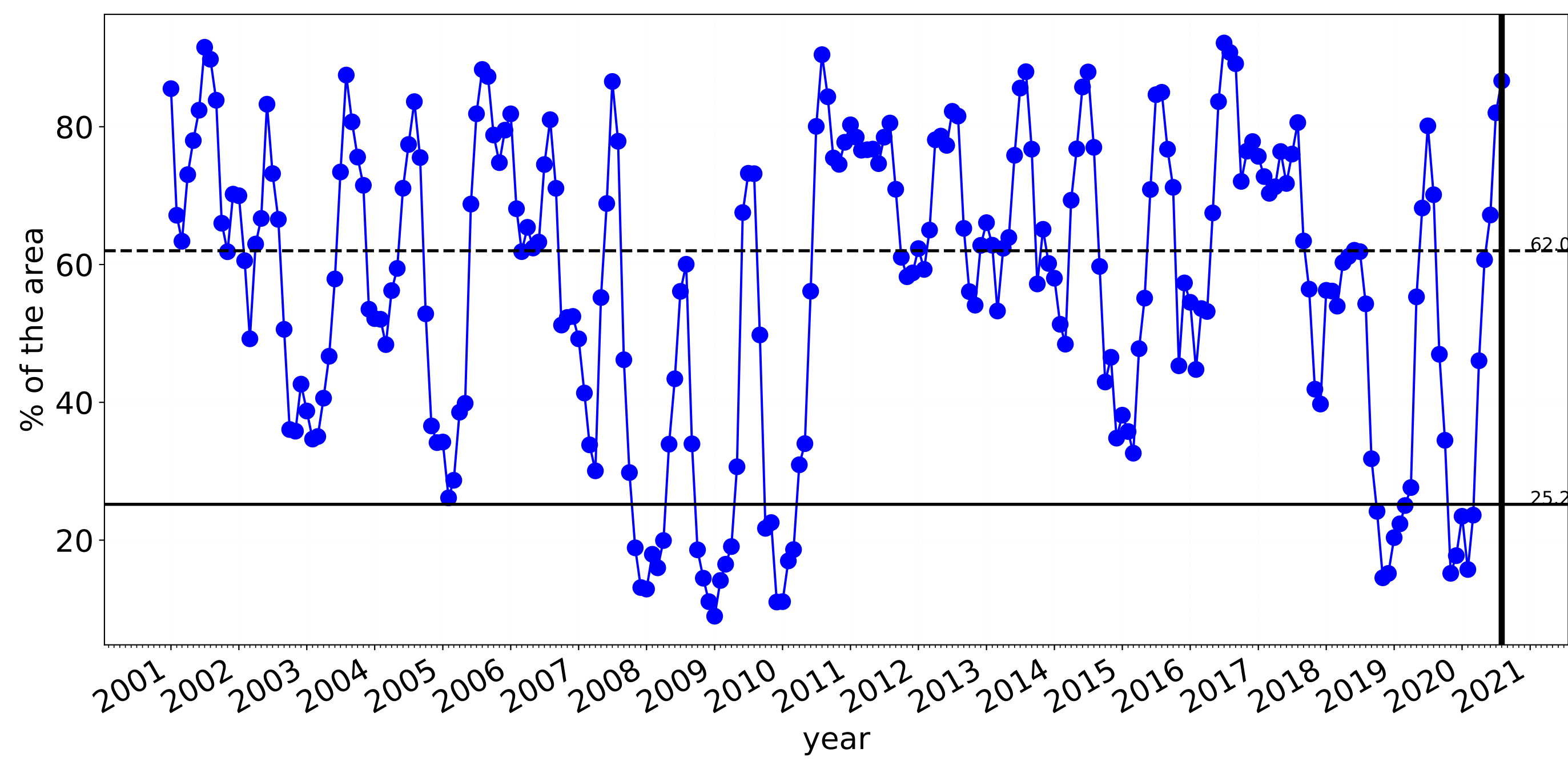**Irrigation timeseries**

Proportion of the area protected from wind erosion (Total Vegetation Cover > 50%)

Wind erosion historical monthly area protected (Total Veg Cov >50%)

Proportion of the area protected from water erosion (Total Vegetation Cover > 70%)

Water erosion historical monthly area protected (Total Veg Cov>70%)

Production native forests and plantation forests

Land use and forest cover

Catchment Scale Land Use and Forests of Australia (2018) Derived from Catchment Scale Land Use of Australia (2018) and Forests of Australia (2018)

■ 1 Production native forests and plantation forests

Total Vegetation Cover [%]

71%-100%
51%-70%
31%-50%
0-30%

Proportion of vegetation cover class in area

Area (%)

0.0% 0.0% 1.2% 98.8%

0-30% 31%-50% 51%-70% 71%-100%
Total Vegetation Cover class

% Area protected from water erosion (>70%)

Area not protected 1.2% of region (2,073 ha)

Area protected 98.8% of region (170,701 ha)

% Area protected from wind erosion (>50%)

Area not protected 0.0% of region (0 ha)

Area protected 100.0% of region (172,775 ha)

Total Vegetation Cover Anomaly [%]

Anomaly show how many percetage points each pixel is from the mean. That is, red pixels are about 20% lower than the mean of that pixel. The mean is only for the month of the map using baseline from 2001 to 2019.

Total Vegetation Cover Decile [%]

Deciles show where the pixel value lies in the record, from highest to lowest, for that month. That is, red pixels are in the lowest 10% of records for that month of the map using baseline from 2001 to 2019.

10
8-9
4-7
2-3
1

Production native forests and plantation forests timeseries

Proportion of the area protected from wind erosion (Total Vegetation Cover > 50%)
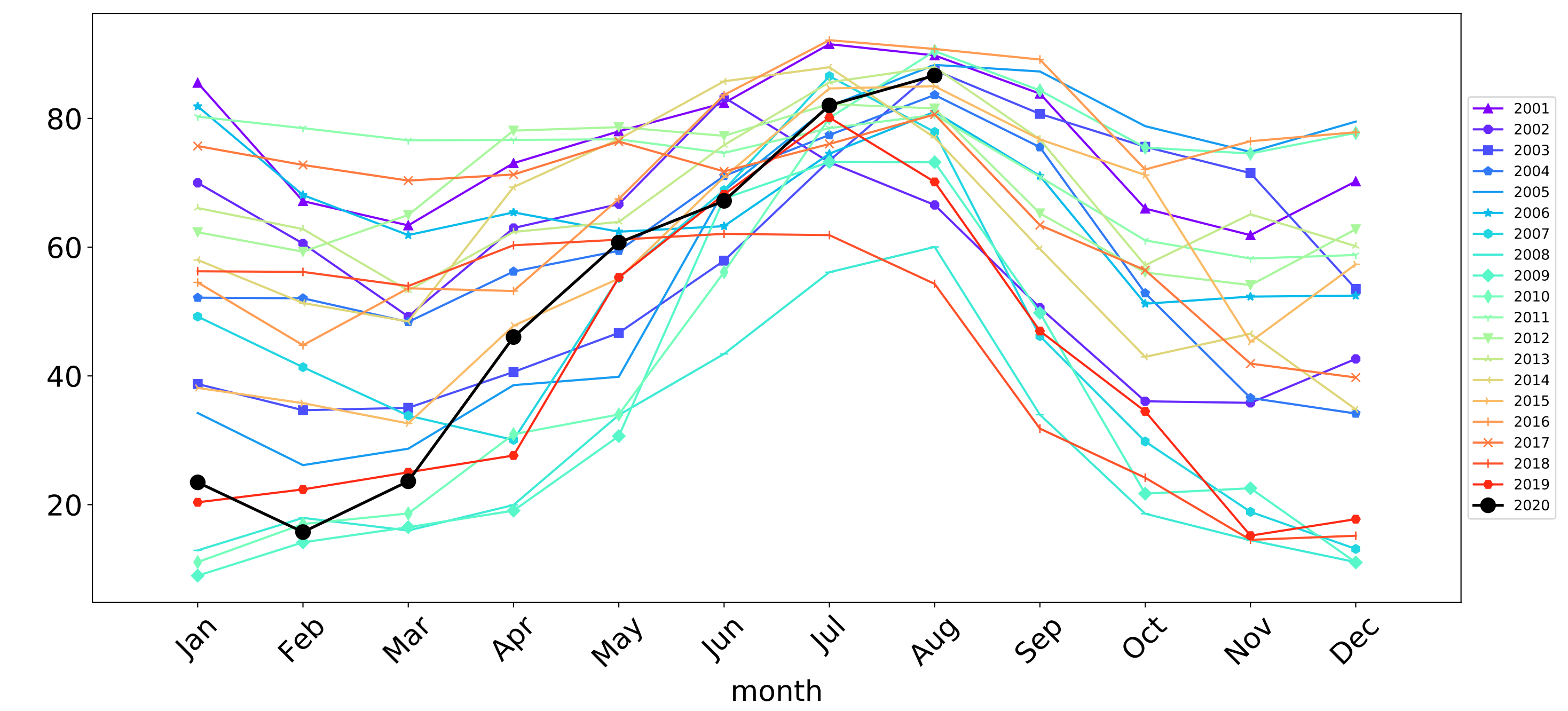

Wind erosion historical monthly area protected (Total Veg Cov >50%)

Proportion of the area protected from water erosion (Total Vegetation Cover > 70%)

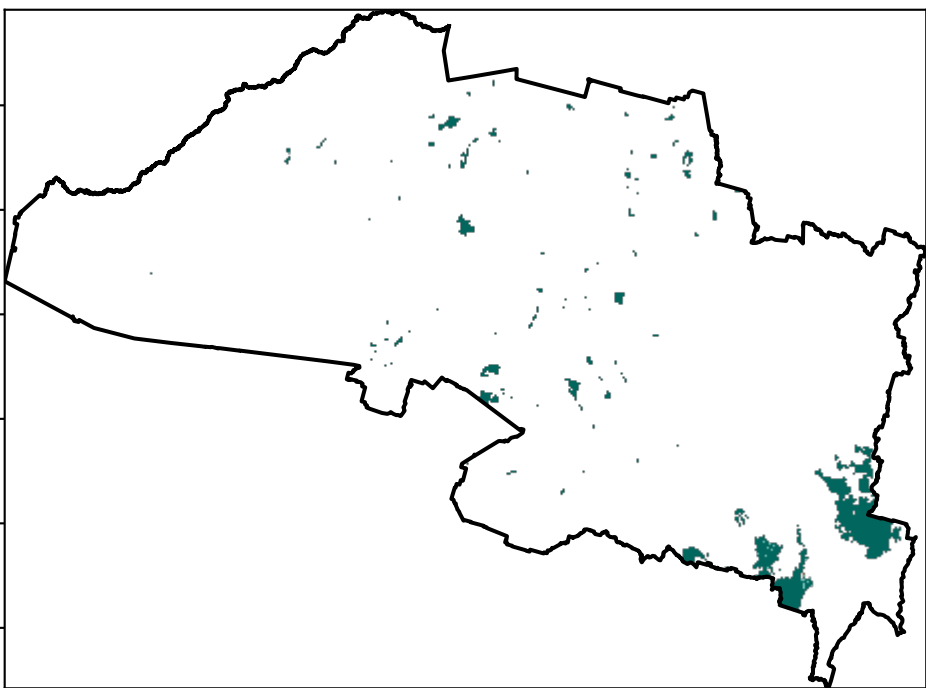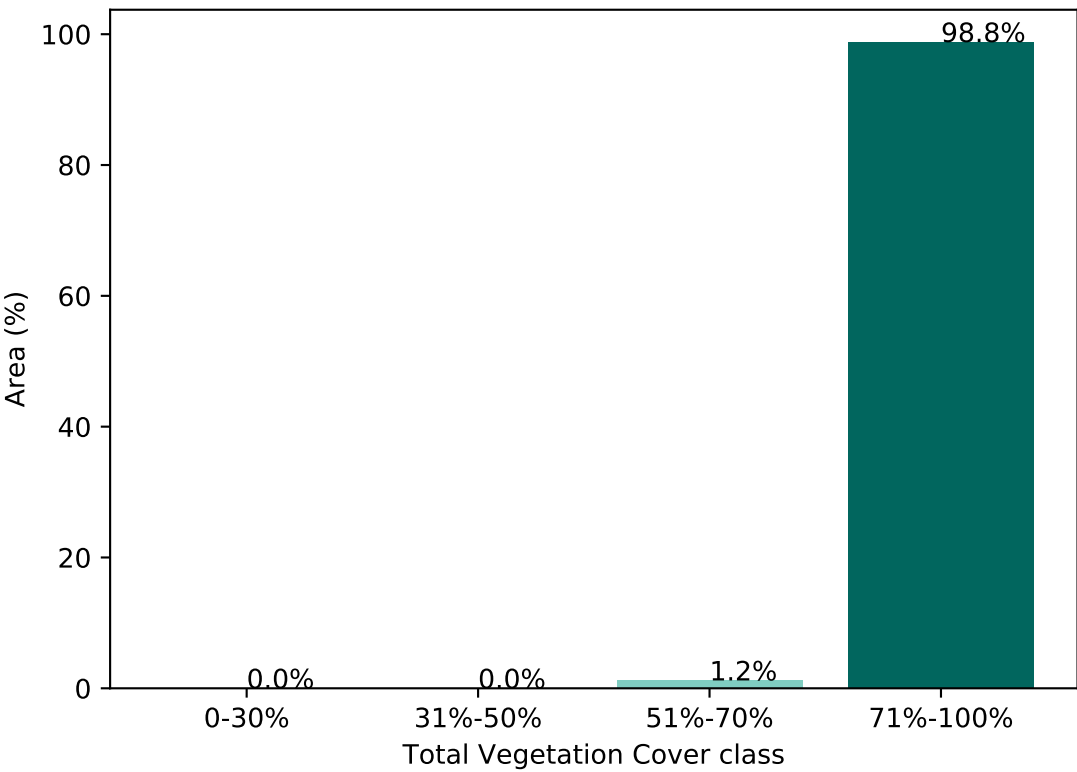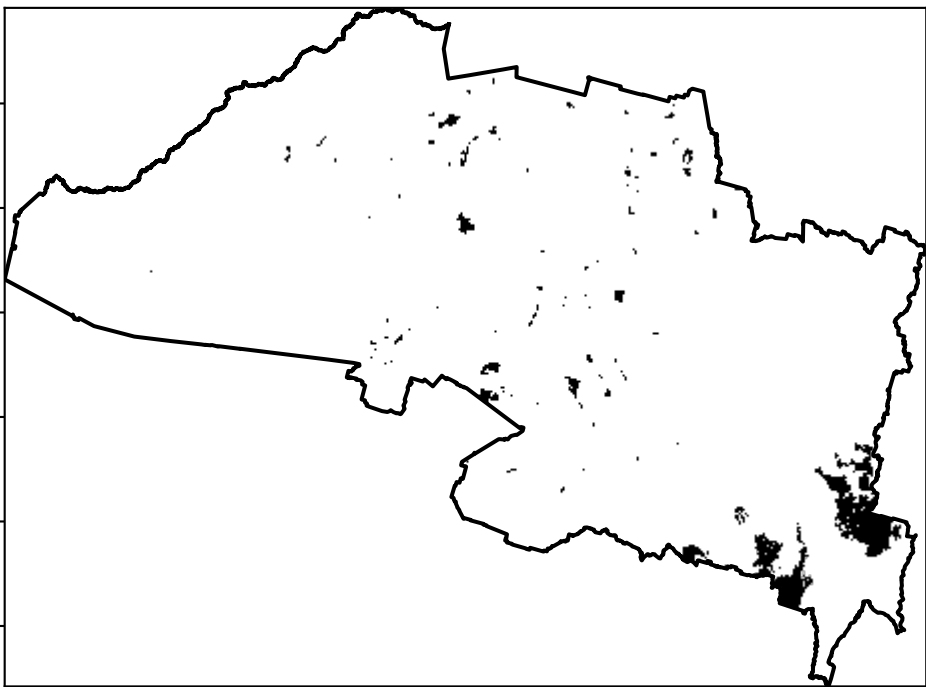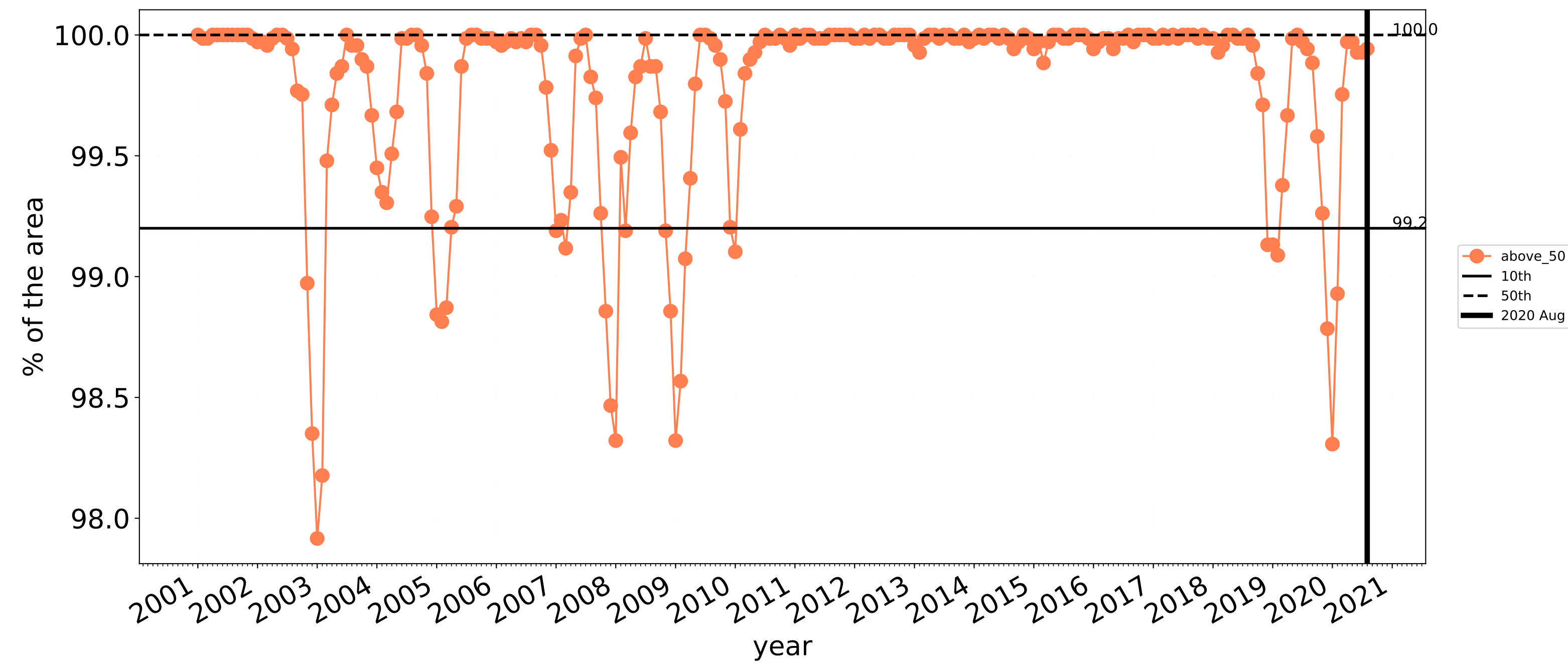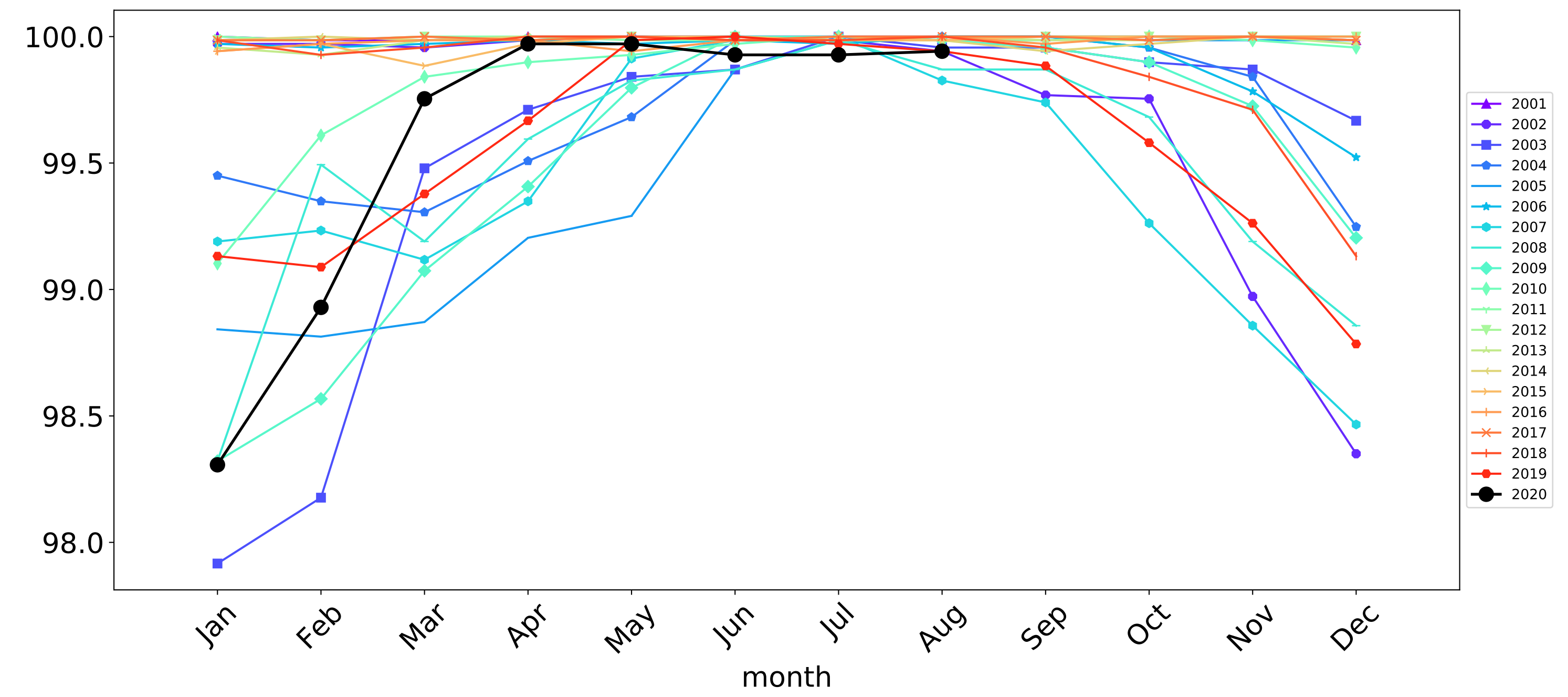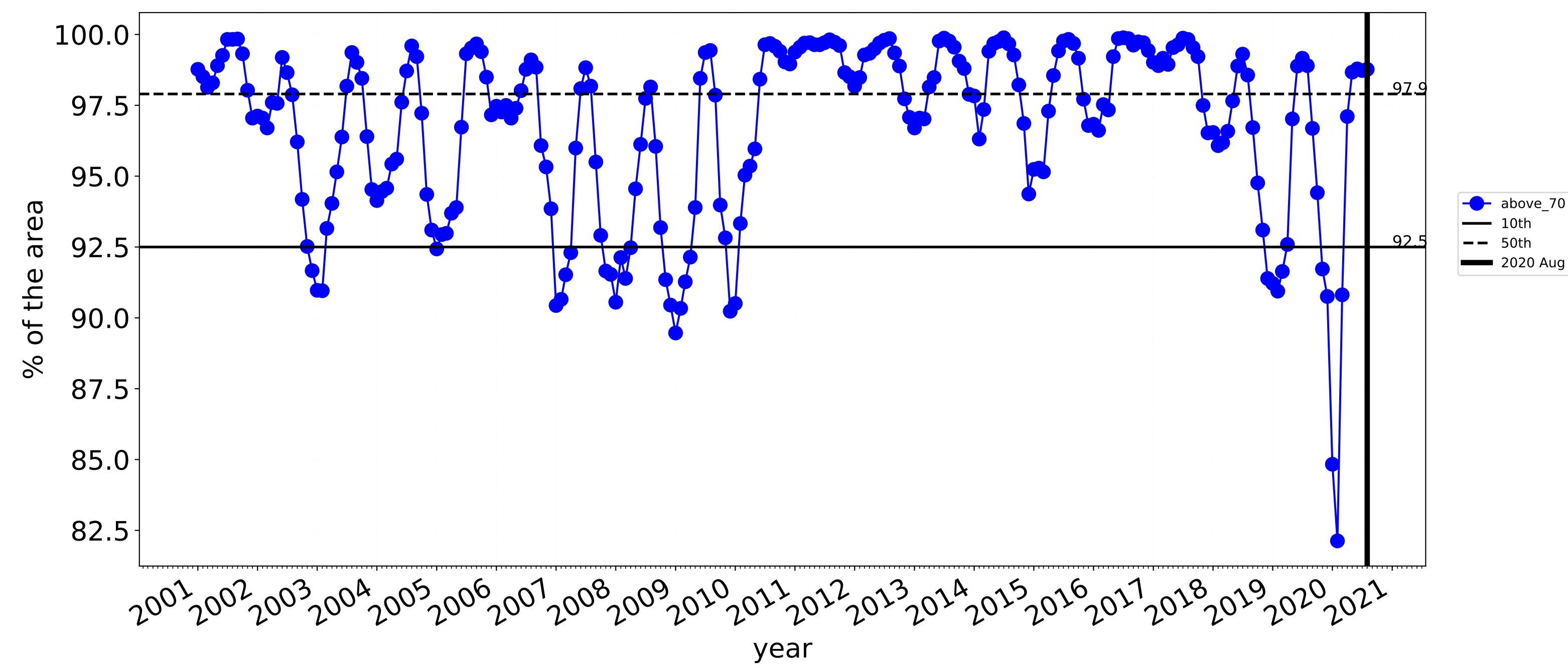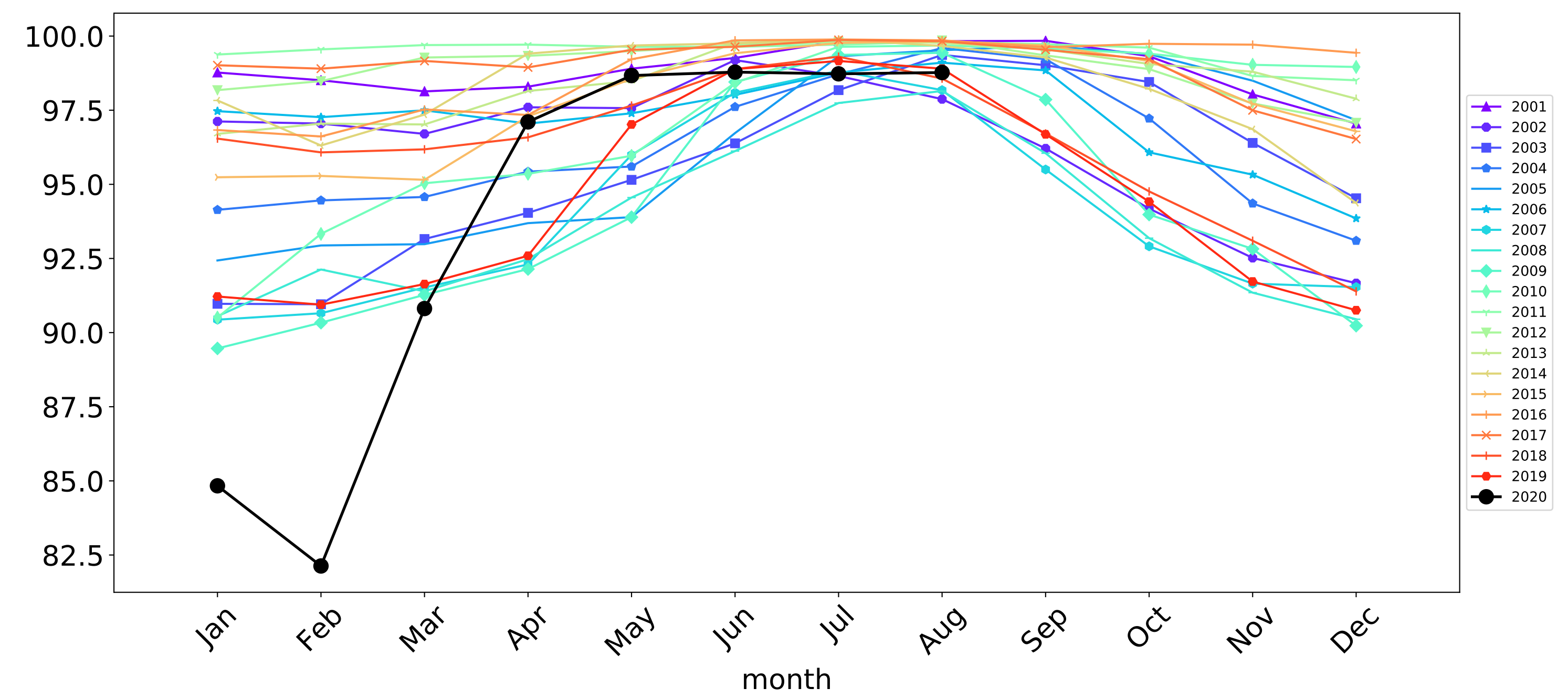Water erosion historical monthly area protected (Total Veg Cov>70%)

Riverina (6,695,850 ha and no data 12,485 ha) Percentage area and hectares protected with TVC threshold 30,50,70,80,90 and 95%

Land use and forest cover Class	area(ha)	above_30	above_50	above_70	above_80	above_90	above_95
Entire region	6,695,850	100.0% 6,694,175	99.8% 6,682,750	96.1% 6,434,125	84.0% 5,627,175	35.5% 2,374,050	12.8% 855,425
Conservation and natural environments	323,125	99.9% 322,825	99.3% 320,725	92.2% 298,025	79.0% 255,250	51.2% 165,600	22.6% 73,125
Conservation and natural environments non forest	83,350	100.0% 83,350	99.9% 83,300	87.9% 73,225	61.8% 51,475	23.7% 19,775	6.6% 5,525
Conservation and natural environments Forest (non woodland)	195,275	99.9% 195,025	99.0% 193,300	92.9% 181,450	82.7% 161,500	59.0% 115,250	29.6% 57,875
Agriculture	6,068,050	100.0% 6,067,550	99.9% 6,060,275	96.5% 5,853,075	84.5% 5,130,300	34.1% 2,066,975	11.6% 704,350
Grazing	2,311,600	100.0% 2,311,475	99.9% 2,309,025	95.2% 2,199,625	78.9% 1,823,050	29.3% 677,500	6.9% 159,350
Grazing non forest	2,066,600	100.0% 2,066,475	99.9% 2,064,025	94.6% 1,955,125	76.8% 1,586,975	25.8% 532,825	5.6% 115,050
Grazing Woodland forest	141,650	100.0% 141,650	100.0% 141,650	99.9% 141,450	96.4% 136,500	59.3% 84,050	17.4% 24,675
Grazing - Forest (non woodland)	103,350	100.0% 103,350	100.0% 103,350	99.7% 103,050	96.3% 99,575	58.7% 60,625	19.0% 19,625
Cropping	3,186,925	100.0% 3,186,925	100.0% 3,186,600	99.2% 3,160,100	93.6% 2,981,725	41.9% 1,333,850	16.7% 530,725
Irrigation	567,700	99.9% 567,325	99.1% 562,825	86.7% 492,000	57.2% 324,800	9.8% 55,475	2.5% 14,250
Production native forests and plantation forests	172,775	100.0% 172,750	99.9% 172,675	98.8% 170,650	94.1% 162,500	72.3% 124,975	43.2% 74,675