# **Total vegetation cover soil protection Region:NRM Mackay Whitsunday QLD**

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 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 Mar 2025**

### Land use and forest cover

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

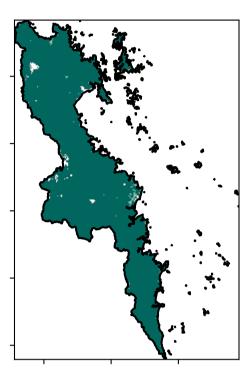
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520070010

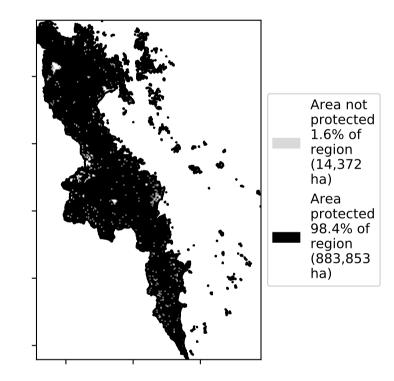
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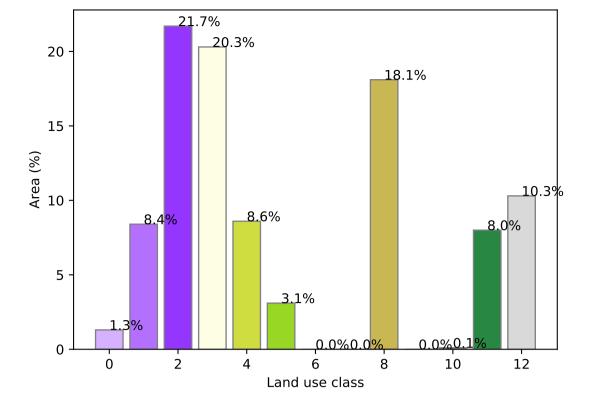
0-30%

### **Total Vegetation Cover [%]**

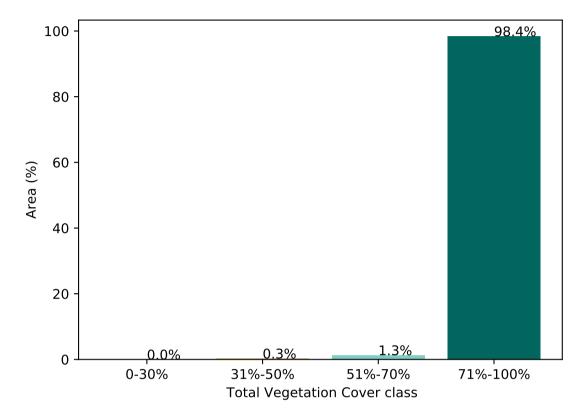


% Area protected from water erosion (>70%)

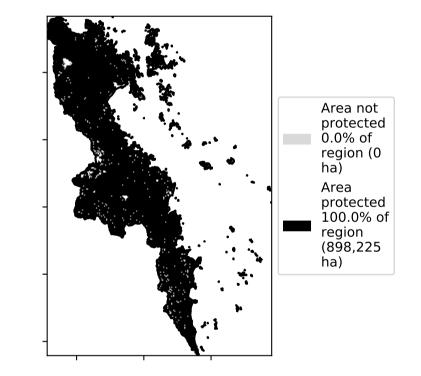




### Proportion of vegetation cover class in area



### % Area protected from wind erosion (>50%)



### Proportion of each land class in area

**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.

Catchment Scale

of Australia (2018)

(2018) and Forests

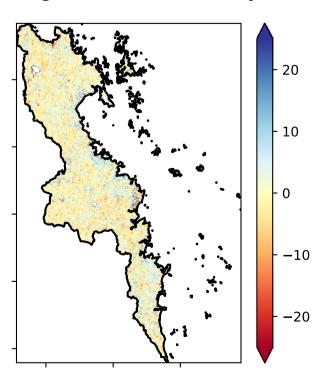
of Australia (2018)

Derived from

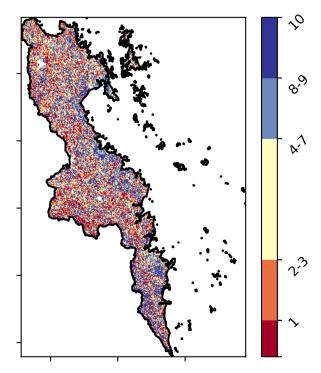
Use of Australia

Land Use and Forests

Catchment Scale Land



**Total Vegetation Cover Decile [%]** 





Deciles show where the

pixel value lies in the

record, from highest to

lowest, for that month.

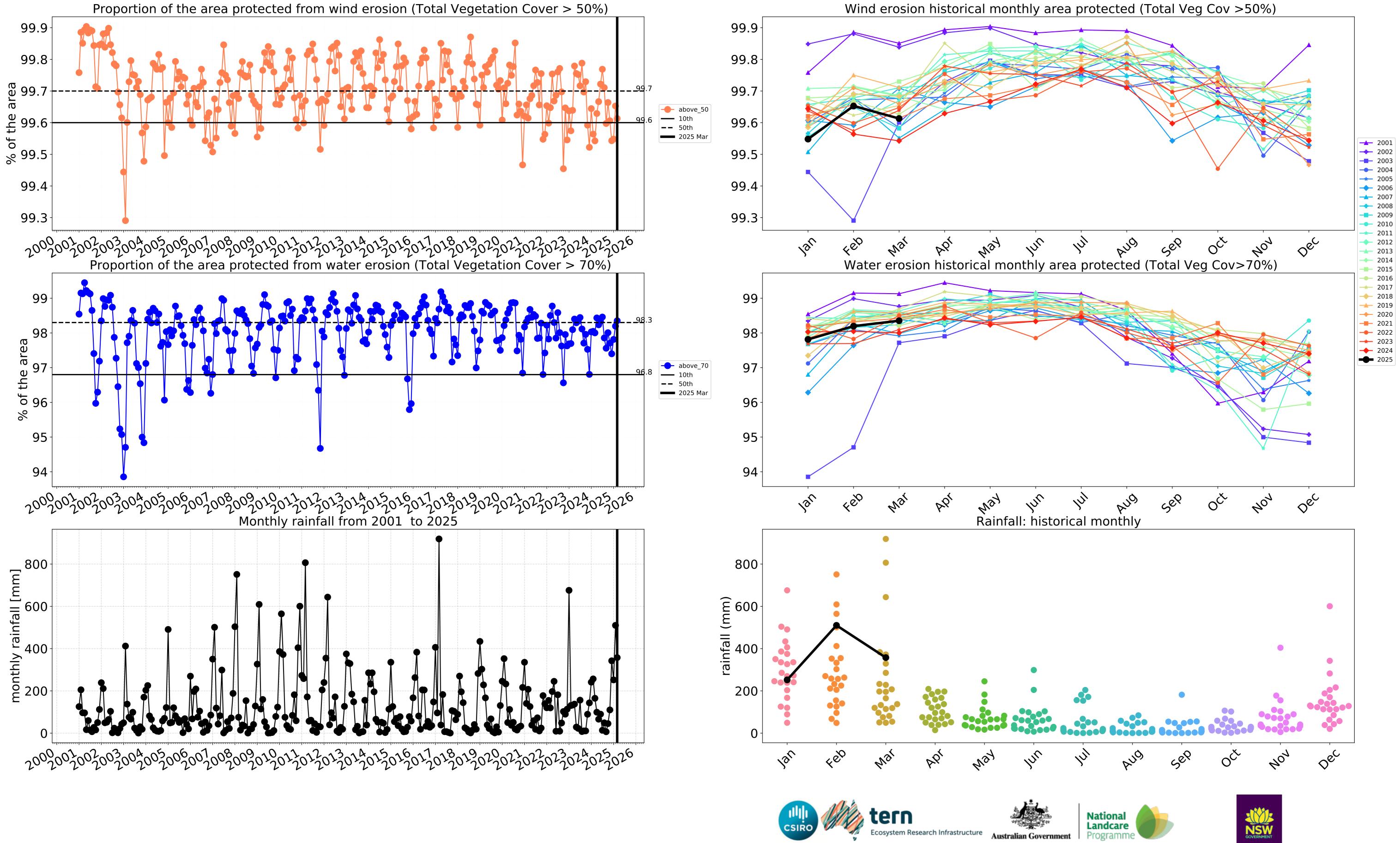
That is, red pixels are

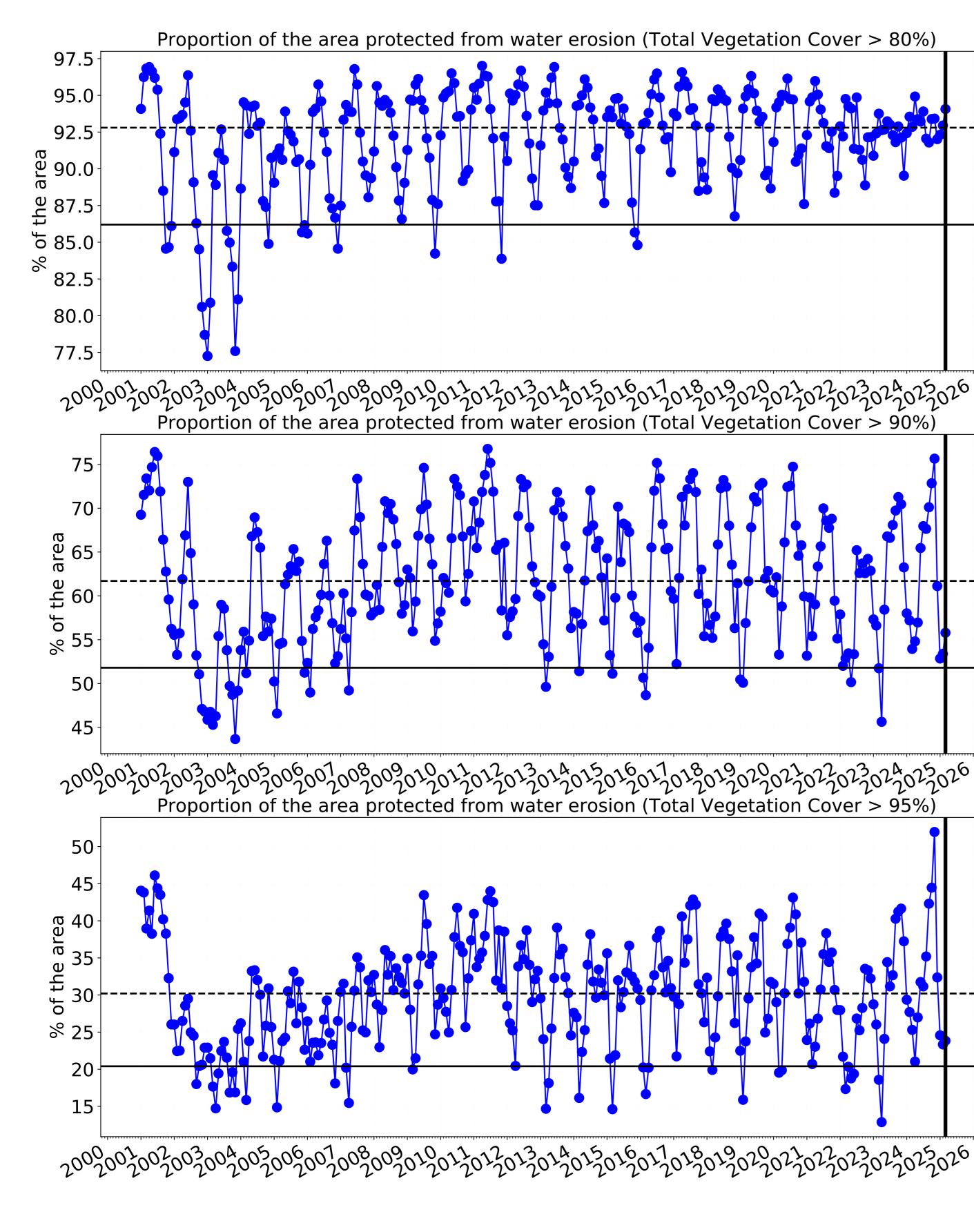
in the lowest 10% of

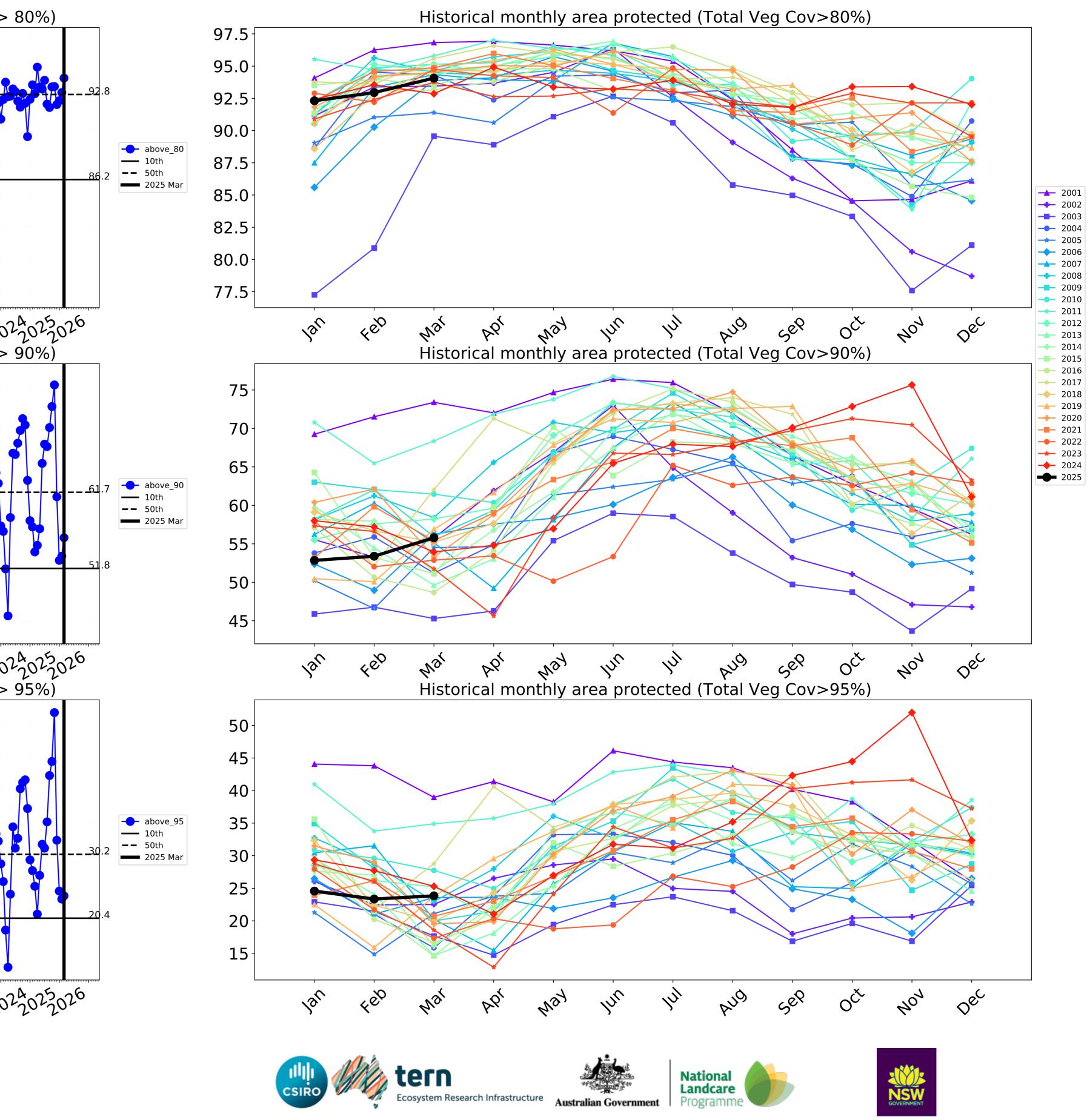
from 2001 to 2019.

records for that month of

the map using baseline





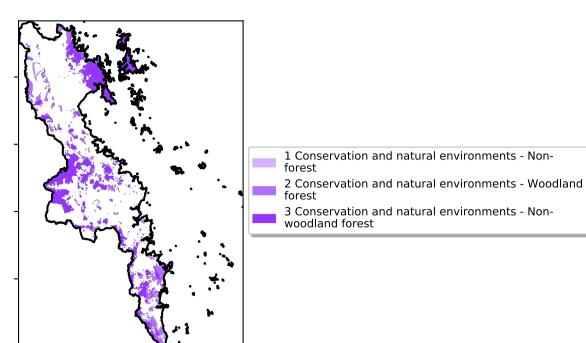




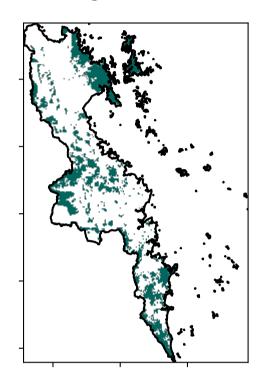
## **Conservation and natural environments**

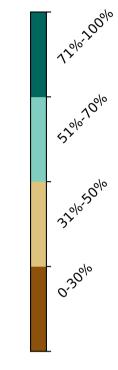
### Land use and forest cover

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

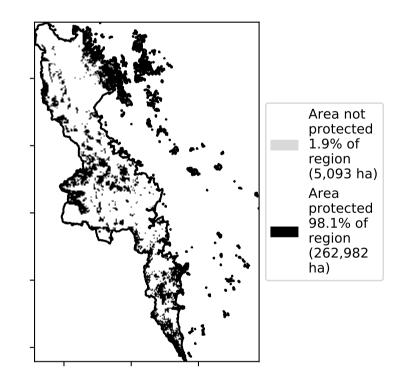


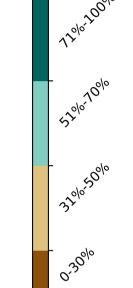
**Total Vegetation Cover [%]** 

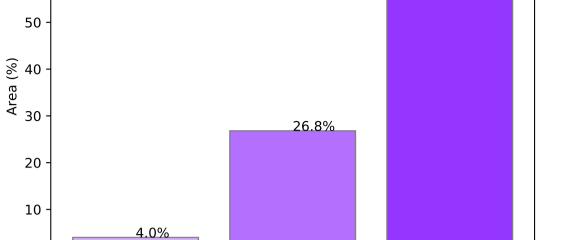




% Area protected from water erosion (>70%)







### Proportion of each land class in area

70

60

50

0

-0.5

69.1%

2.0

2.5

1.5

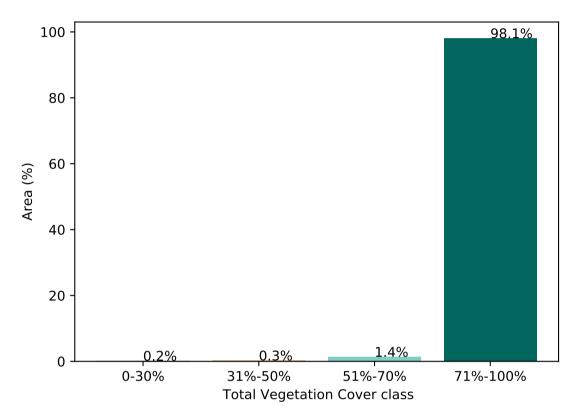
Proportion of vegetation cover class in area

1.0

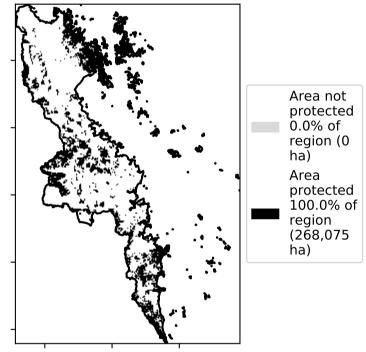
Land use class

0.5

0.0

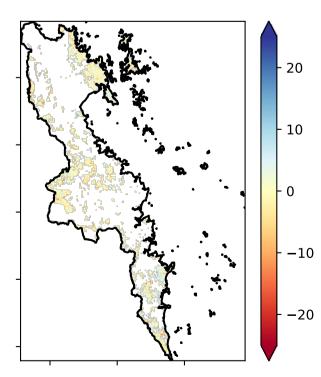


% Area protected from wind erosion (>50%)

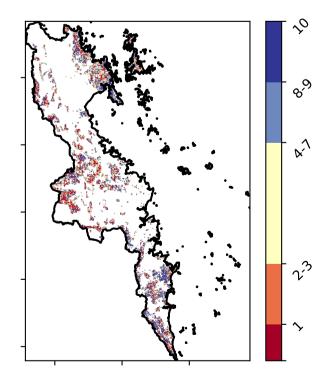


**Total Vegetation Cover Anomaly [%]** 

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.

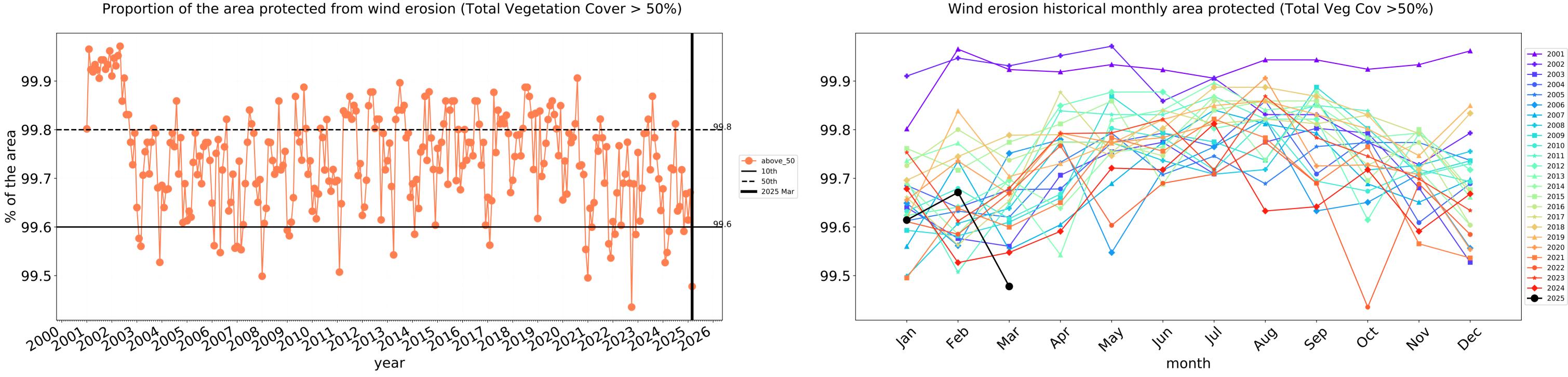


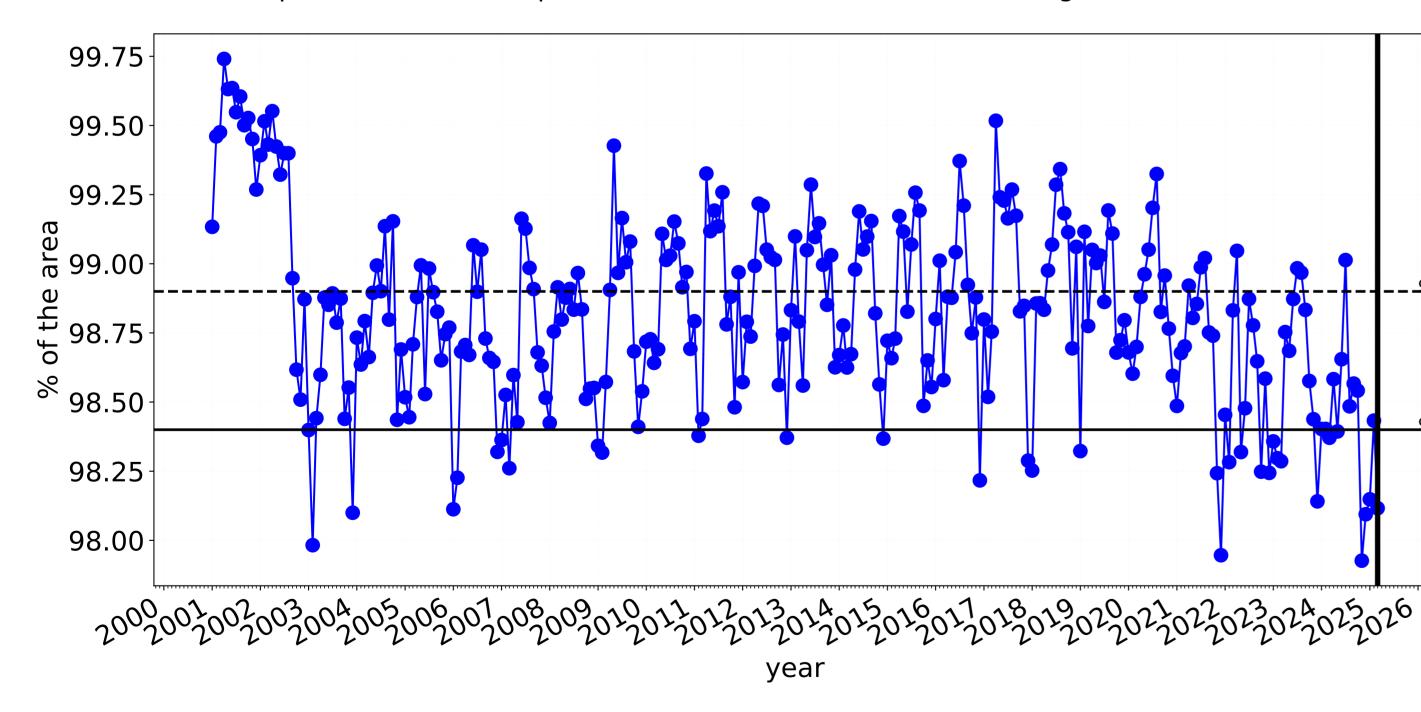
Deciles show where the pixel value lies in the record, from highest to lowest, for that month. That is, red pixels are in the lowest 10% of records for that month of the map using baseline from 2001 to 2019.



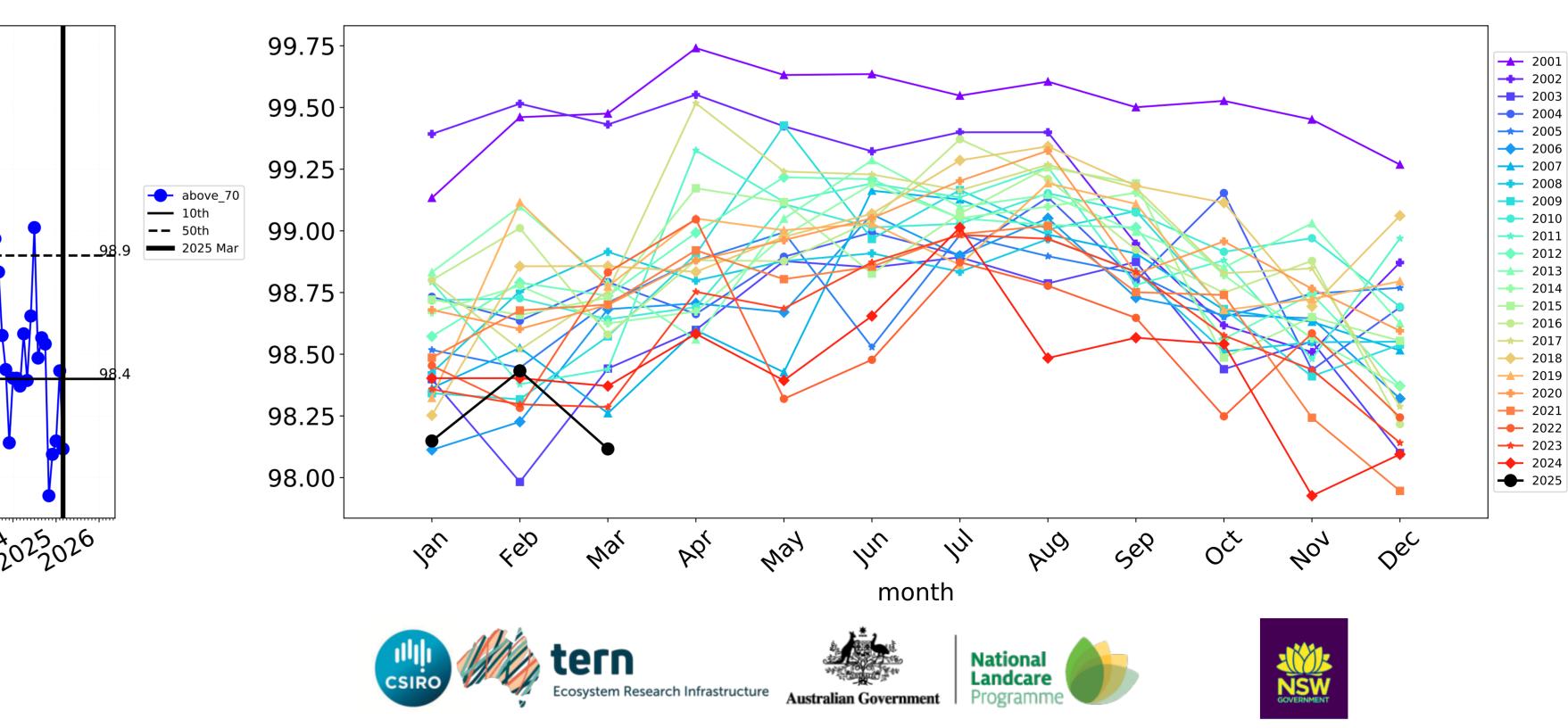






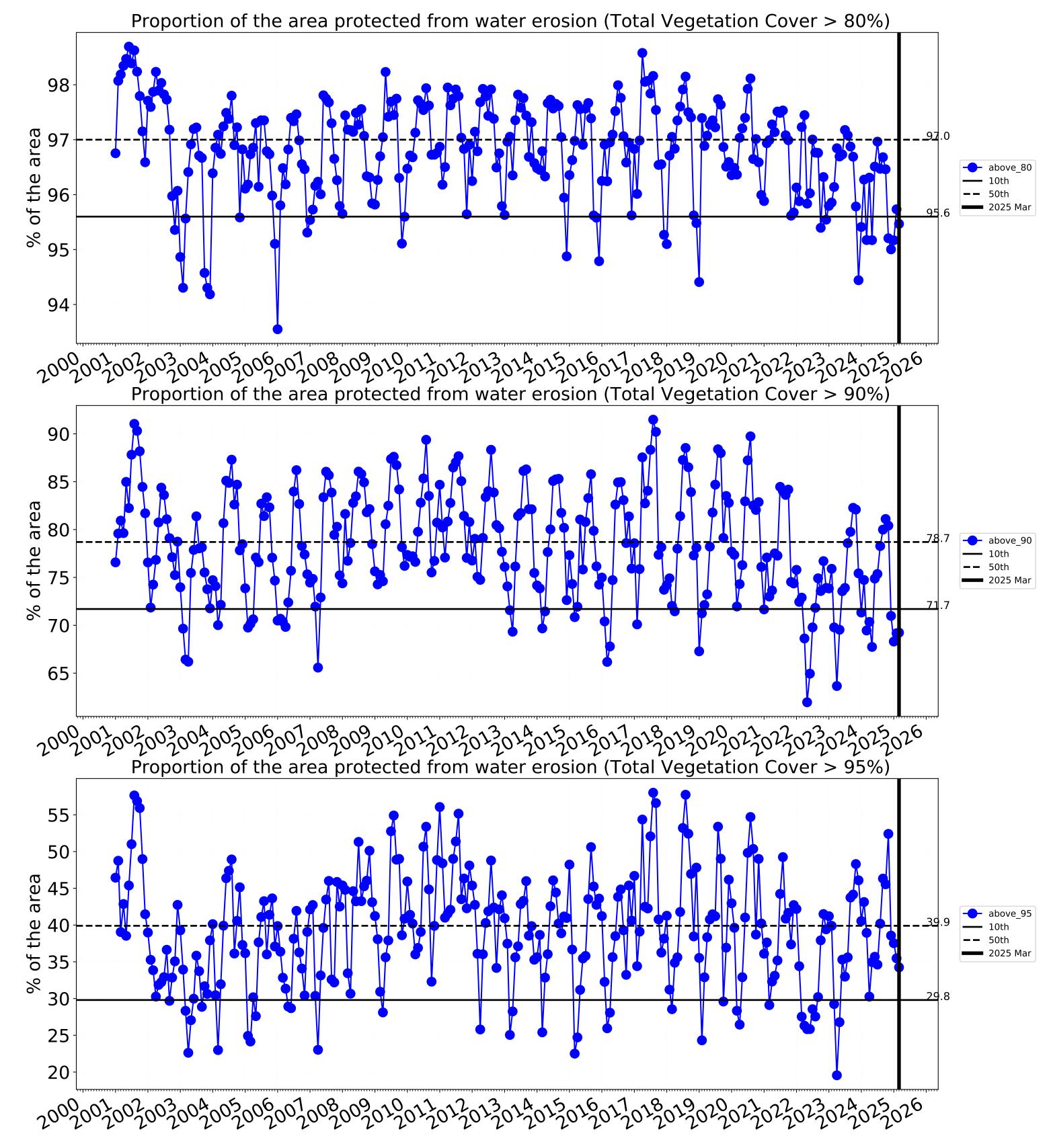


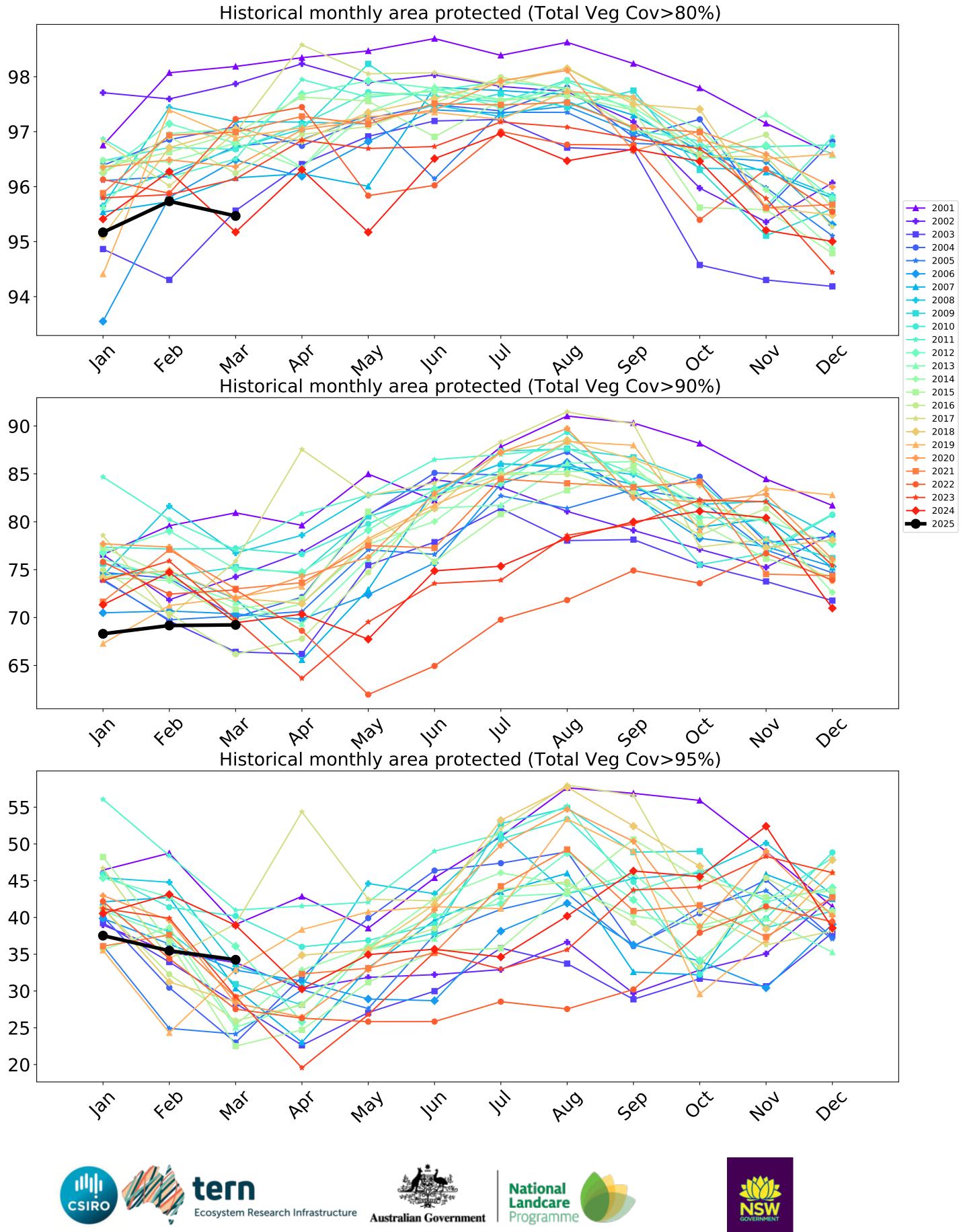
# **Conservation and natural environments timeseries**



6

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

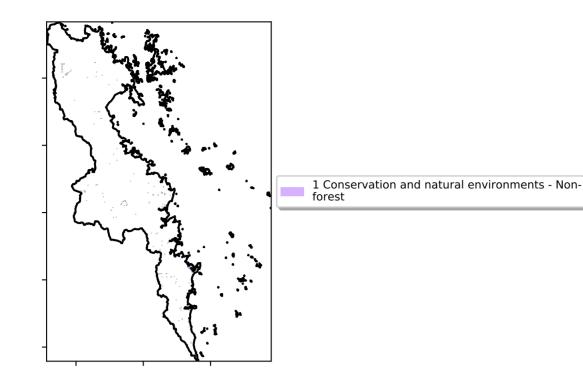




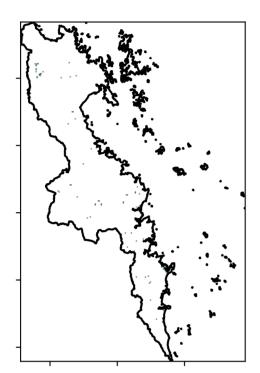


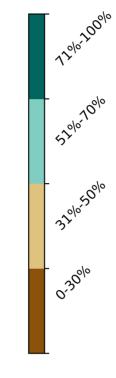
## **Conservation and natural environments non forest**

Land use and forest cover

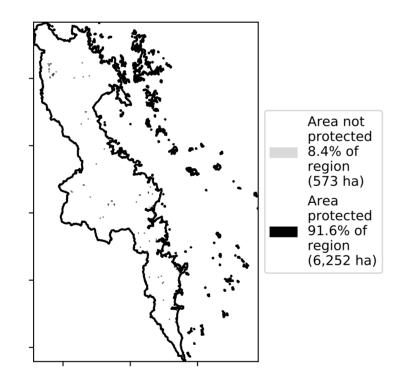


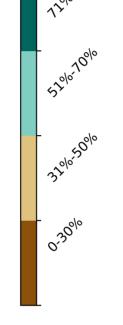
**Total Vegetation Cover [%]** 

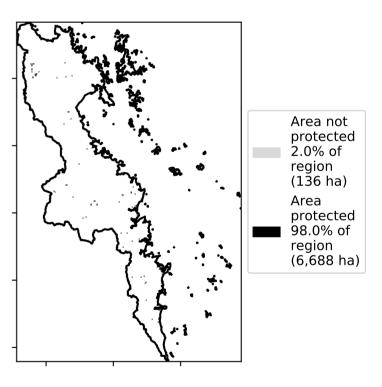




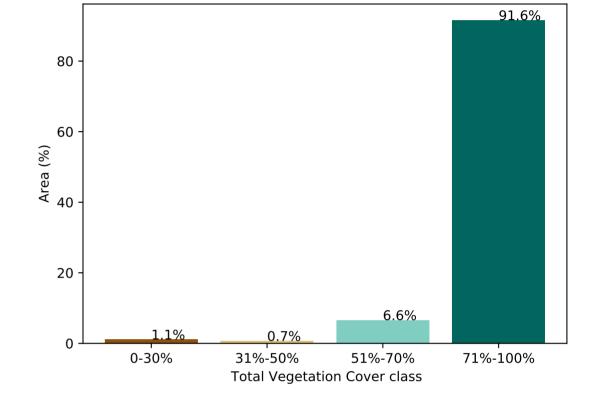
% Area protected from water erosion (>70%)







Proportion of vegetation cover class in area



% Area protected from wind erosion (>50%)

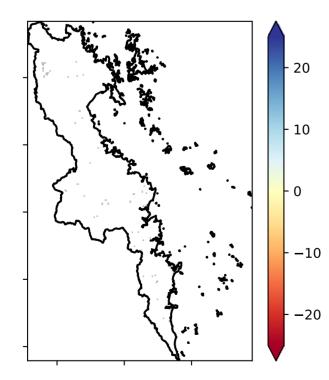
**Total Vegetation Cover Anomaly [%]** 

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.

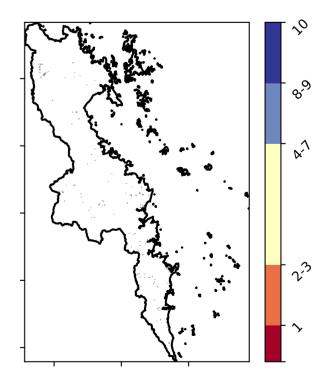
Catchment Scale Land Use and Forests of Australia (2018) Derived from

Use of Australia (2018) and Forests of Australia (2018)

Catchment Scale Land

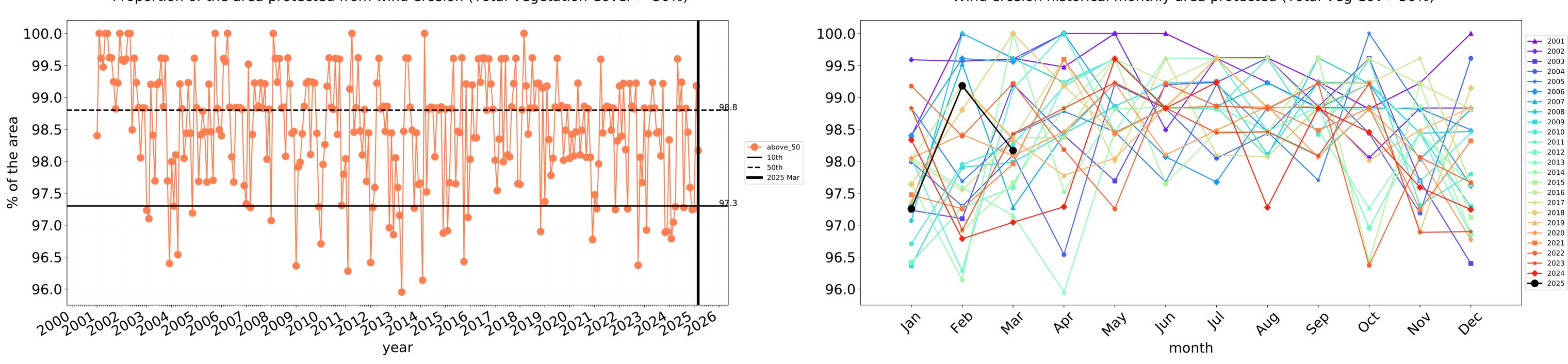


Deciles show where the pixel value lies in the record, from highest to lowest, for that month. That is, red pixels are in the lowest 10% of records for that month of the map using baseline from 2001 to 2019.

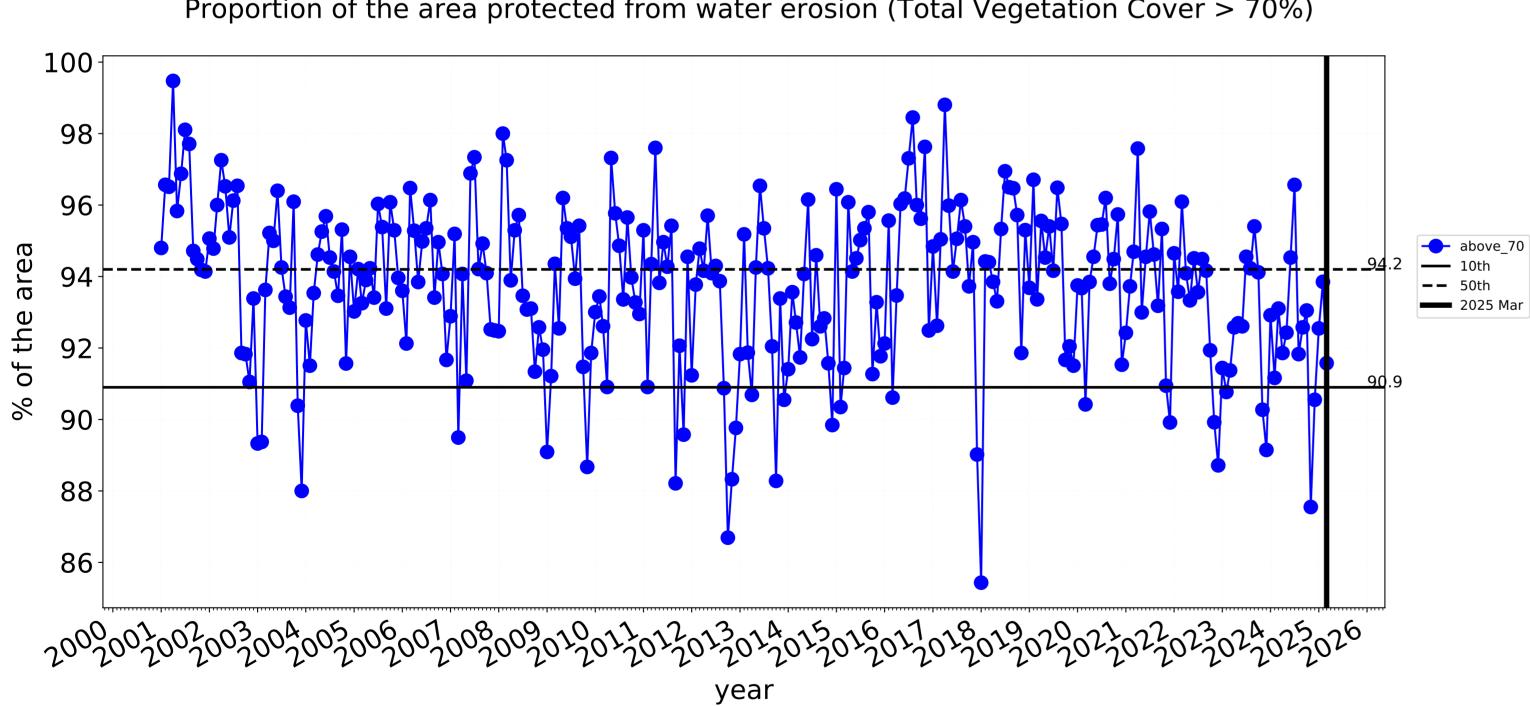




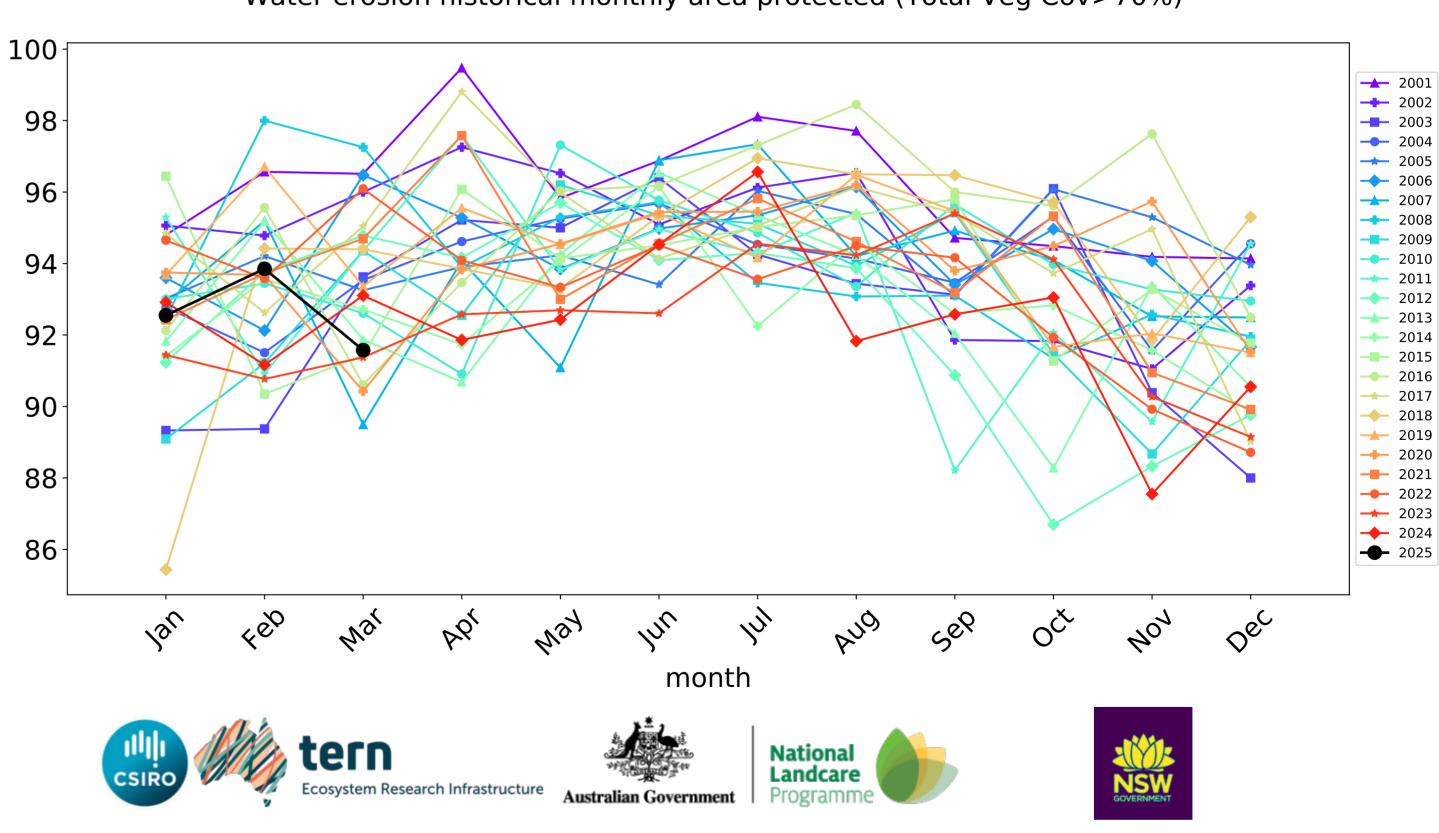




Proportion of the area protected from wind erosion (Total Vegetation Cover > 50%)

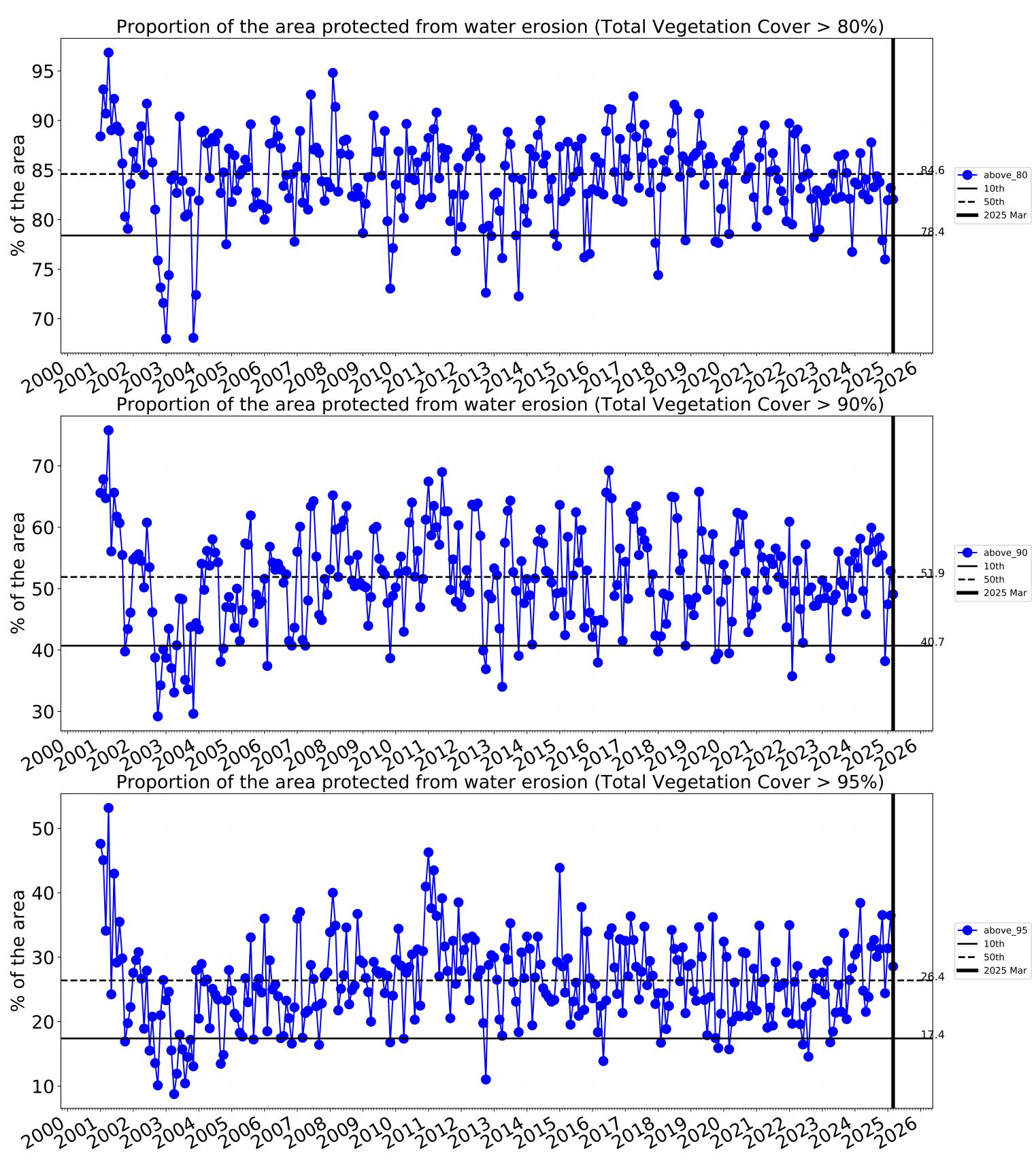


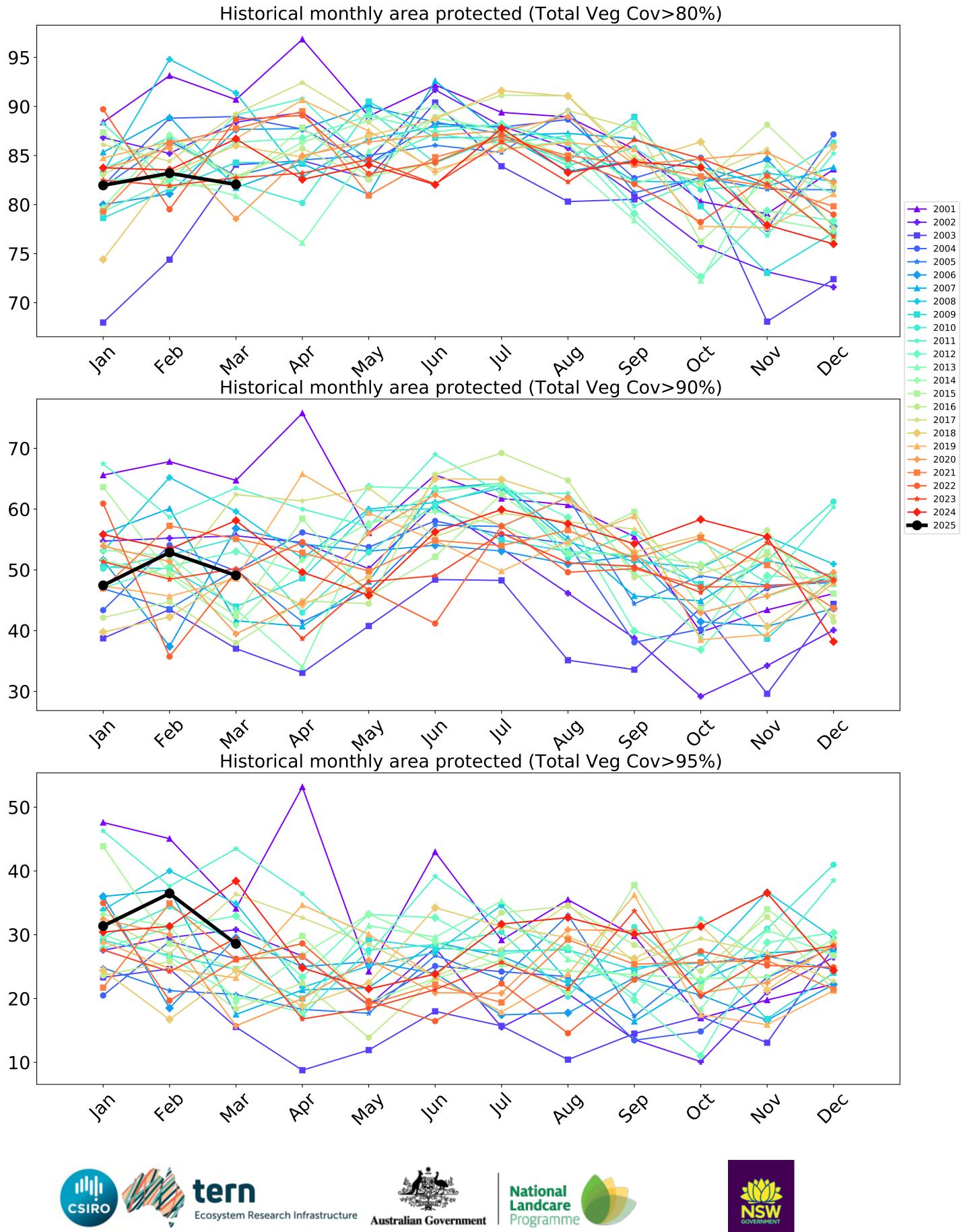
Proportion of the area protected from water erosion (Total Vegetation Cover > 70%)



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

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

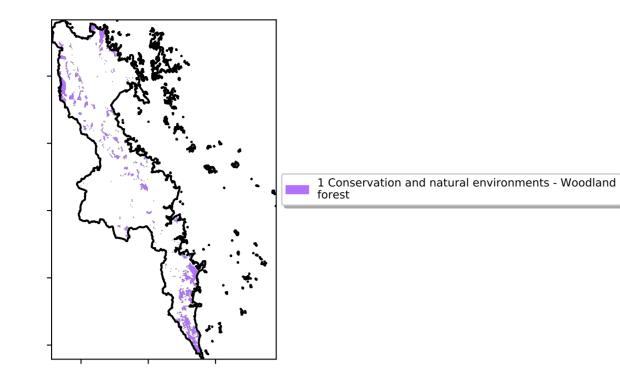




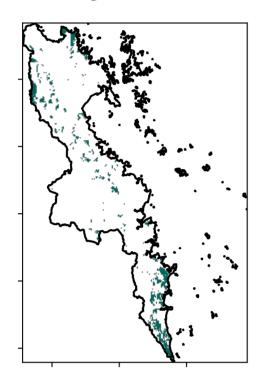


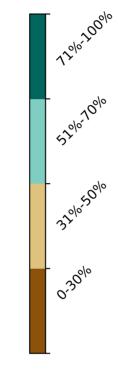
## **Conservation and natural environments Woodland forest**

Land use and forest cover

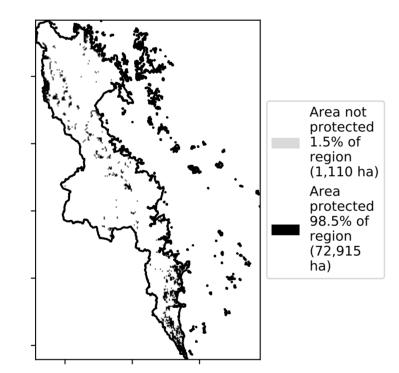


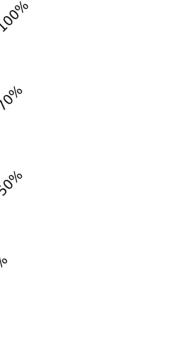
**Total Vegetation Cover [%]** 



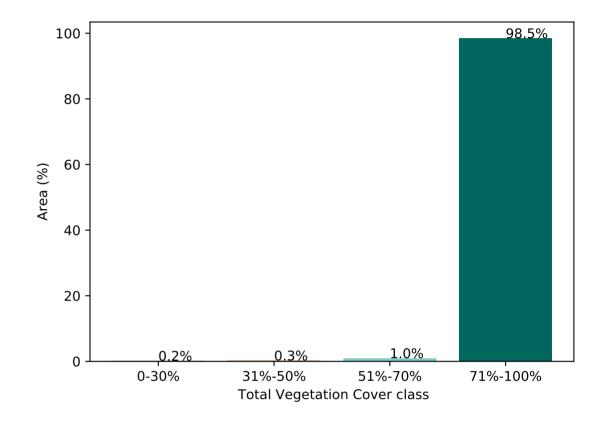


% Area protected from water erosion (>70%)

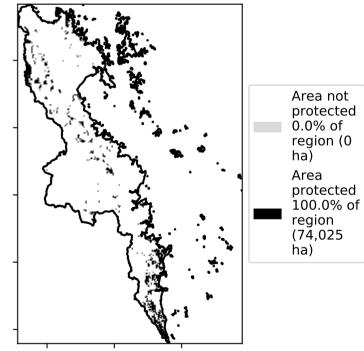




Proportion of vegetation cover class in area



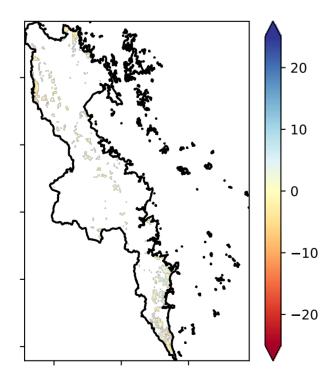
% Area protected from wind erosion (>50%)



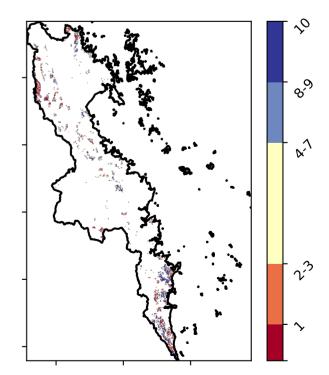
Catchment Scale Land Use and Forests of Australia (2018) Derived from Catchment Scale Land Use of Australia (2018) and Forests of Australia (2018)

**Total Vegetation Cover Anomaly [%]** 

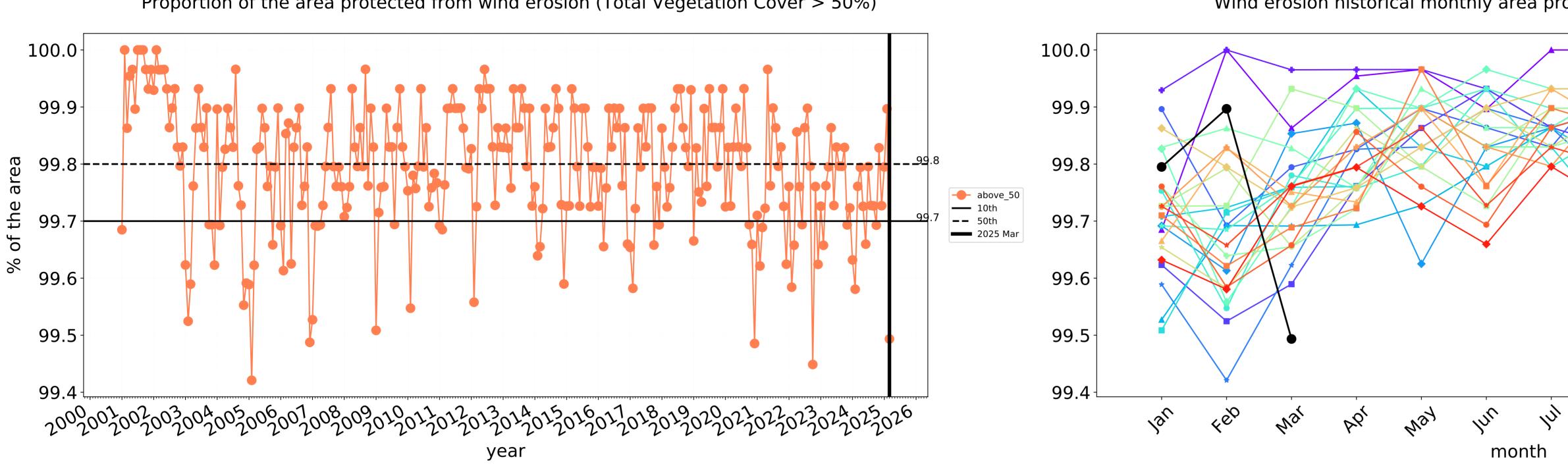
Anomaly show how many percetage points each pixel is from the mean. That is, red pixels are about 20% lower than the mean of that pixel. The mean is only for the month of the map using baseline from 2001 to 2019.



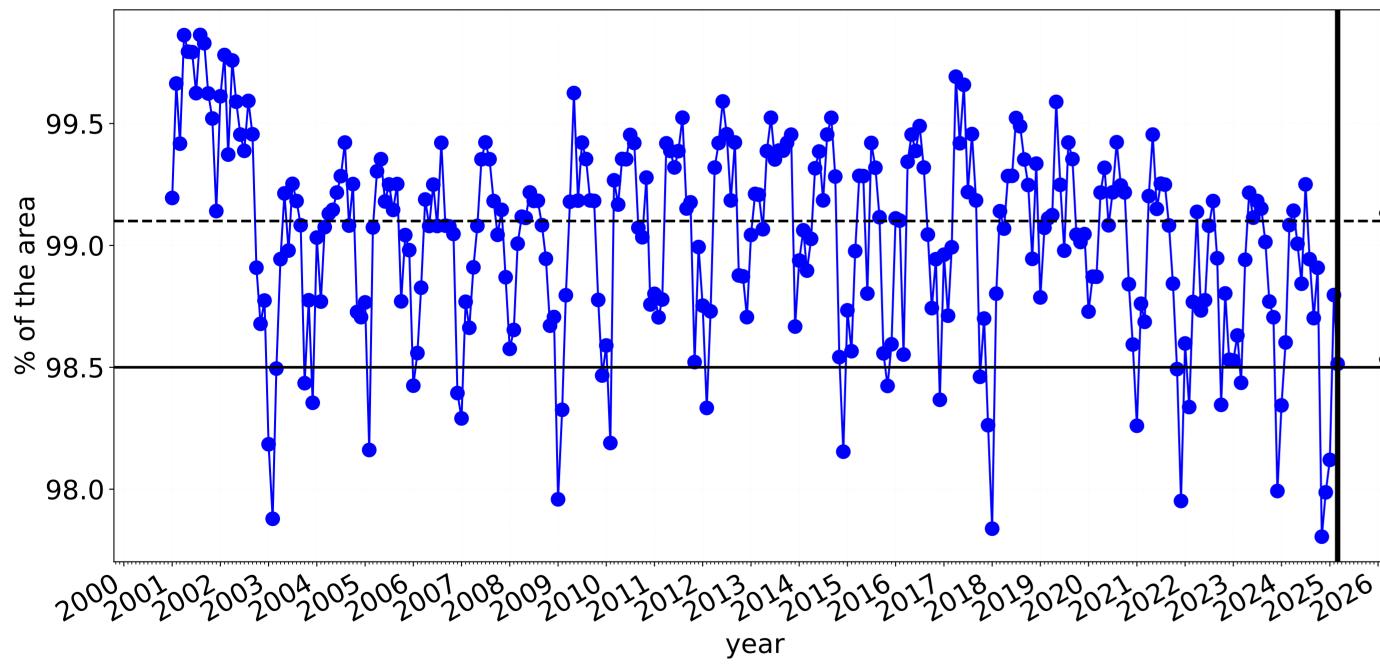
Deciles show where the pixel value lies in the record, from highest to lowest, for that month. That is, red pixels are in the lowest 10% of records for that month of the map using baseline from 2001 to 2019.







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



99.5above\_70 10th **——** 50th 99.0 **——** 2025 Mar 98.5 98.0 Jan 4er In Mai Nat month tern Ecosystem Research Infrastructure Australian Government

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**→** 2002**→** 2003

0<sup>Č</sup>

401

**---** 2001

**—** 2004

**----** 2005 **---** 2006 **\_\_\_** 2007 ---- 2008

---- 2009

--- 2010 **----** 2011

→ 2012→ 2013

**---** 2014

---- 2015 ---- 2016

---- 2017

---- 2018 ---- 2020 \_\_\_\_ 2021 ---- 2022

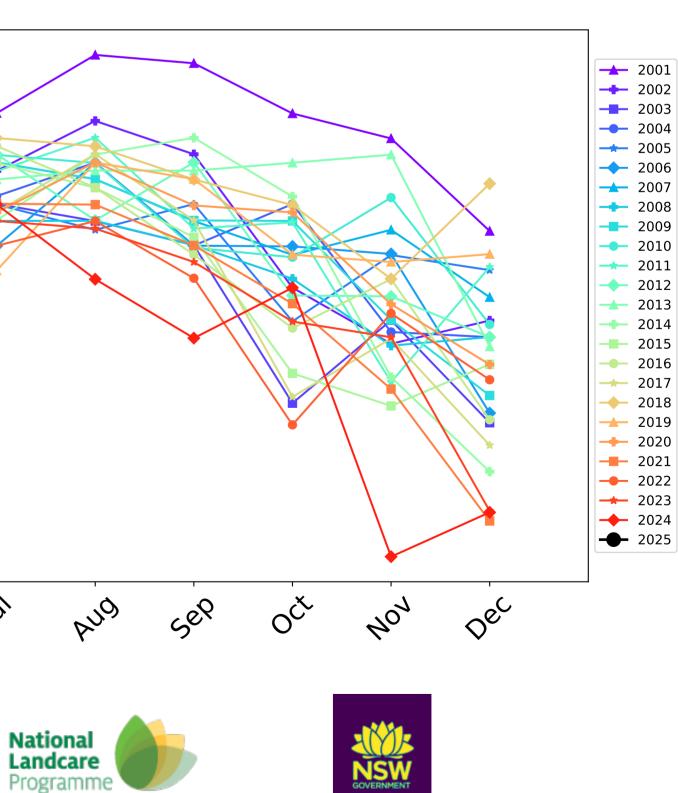
**----** 2023 **---** 2024 ---- 2025

Dec



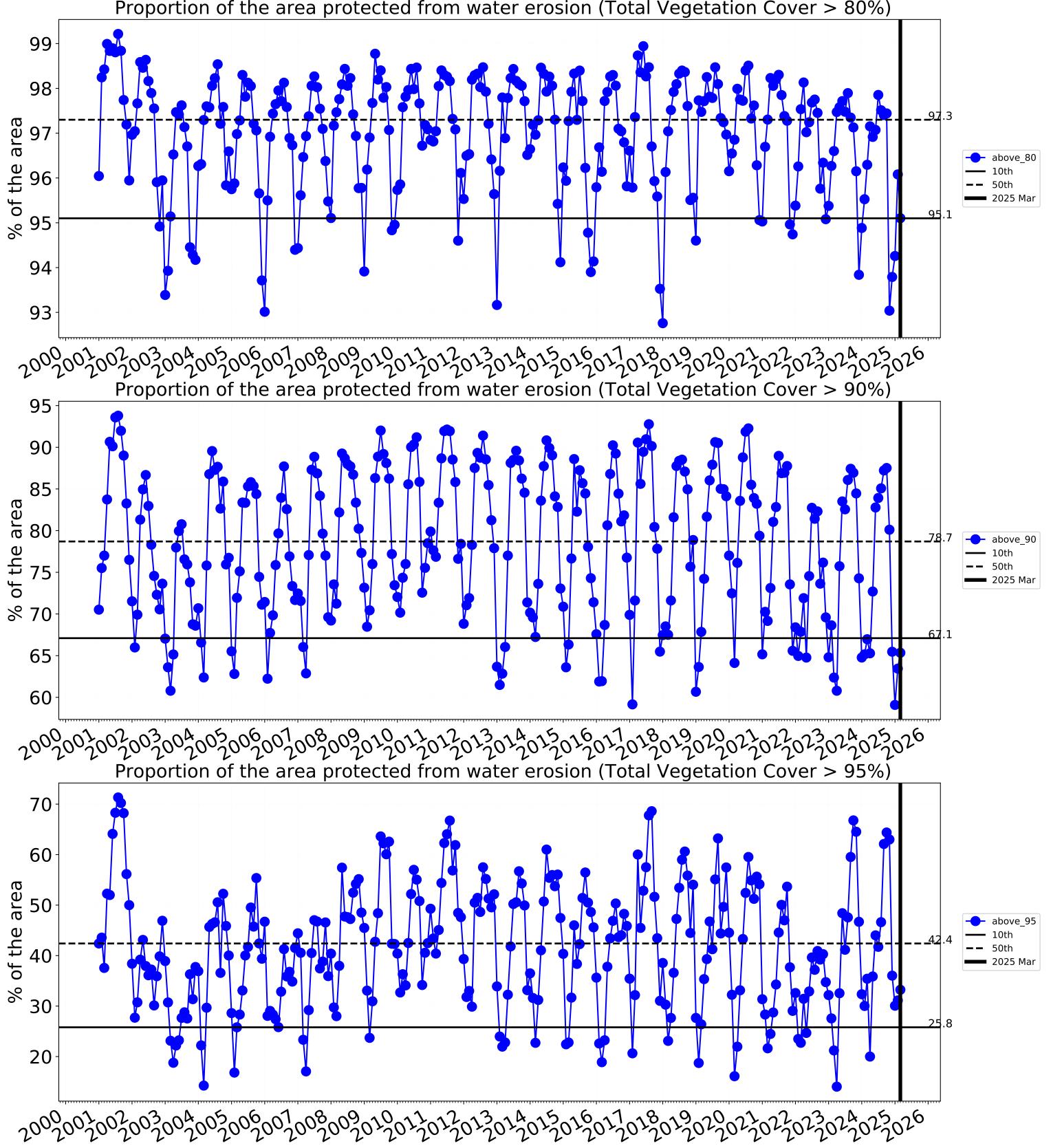
Ler

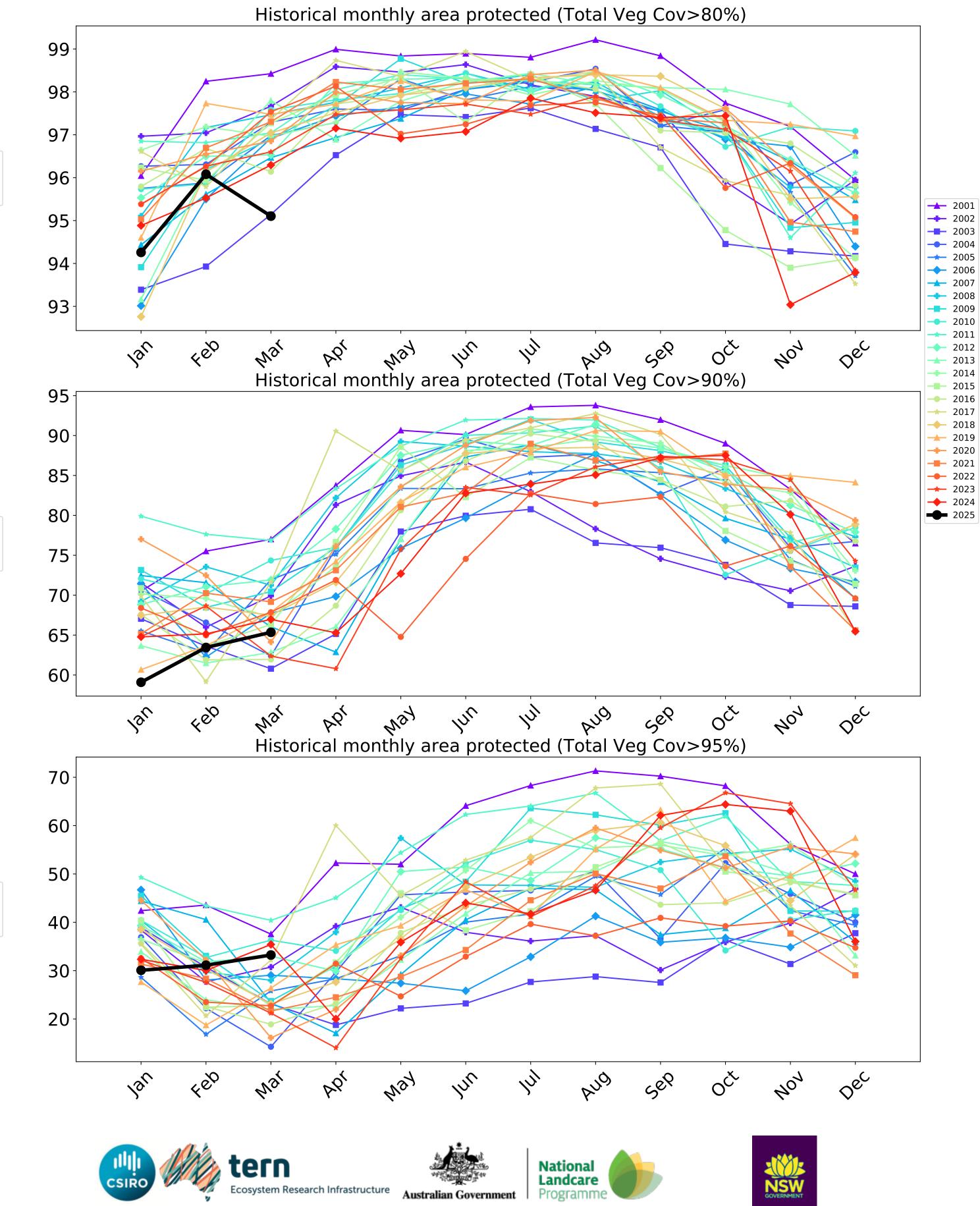
AUG



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

Proportion of the area protected from water erosion (Total Vegetation Cover > 80%)







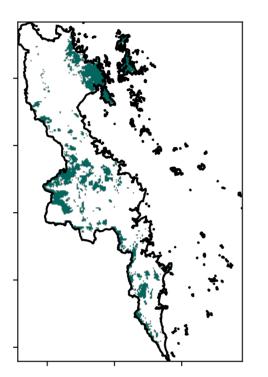
## **Conservation and natural environments Forest (non woodland)**

Land use and forest cover

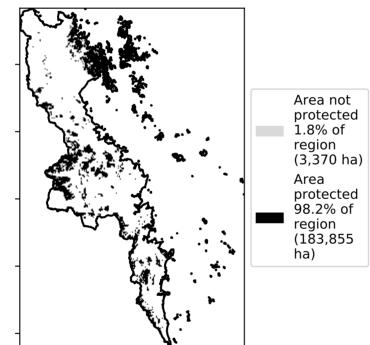


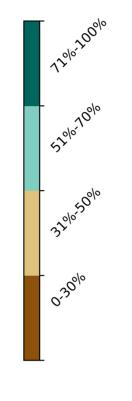
1 Conservation and natural environments - Nonwoodland forest

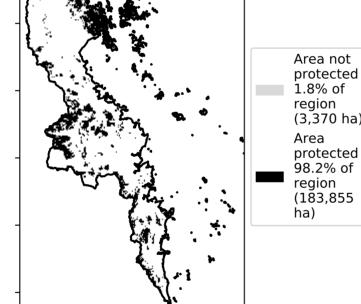
**Total Vegetation Cover [%]** 



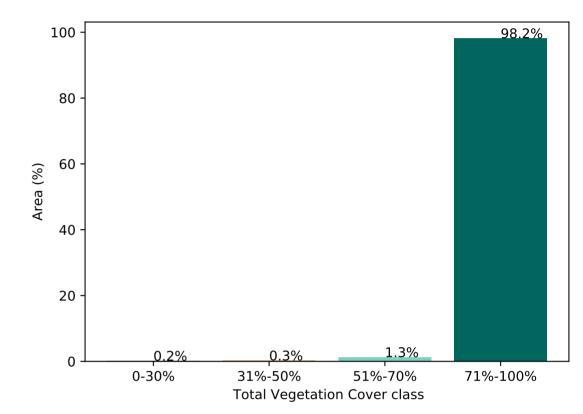
% Area protected from water erosion (>70%)







Proportion of vegetation cover class in area

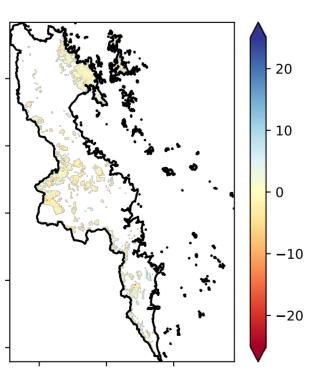


% Area protected from wind erosion (>50%)



**Total Vegetation Cover Anomaly [%]** 

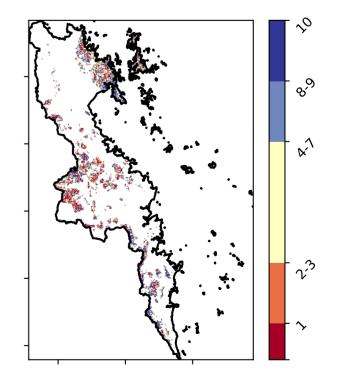
Anomaly show how many percetage points each pixel is from the mean. That is, red pixels are about 20% lower than the mean of that pixel. The mean is only for the month of the map using baseline from 2001 to 2019.



Area not protected 0.0% of region (0 ha) Area protected 100.0% of region (187,225 ha)

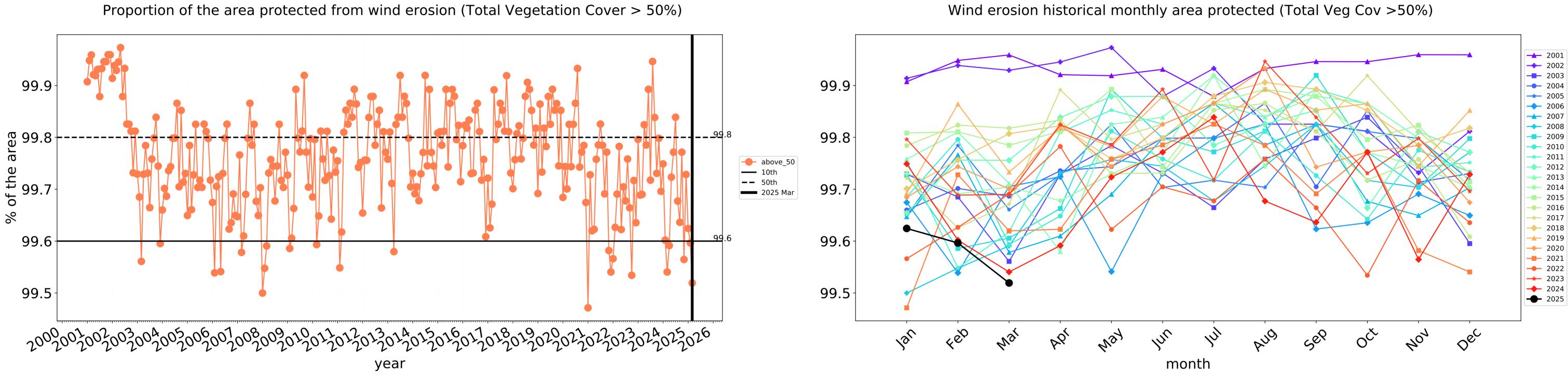
Total Vegetation Cover Decile [%]

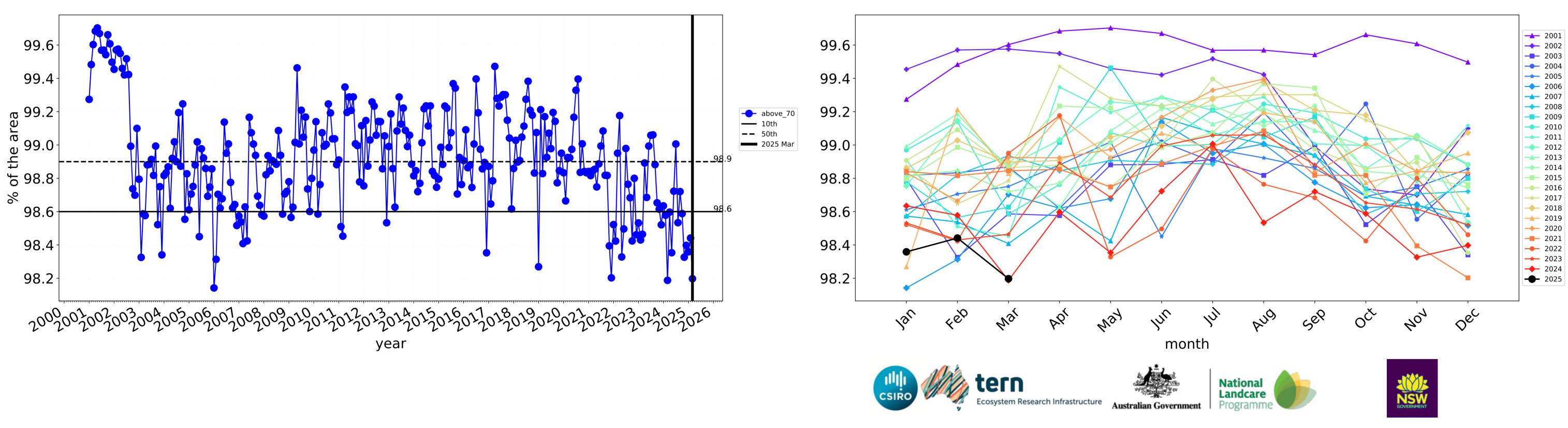
Deciles show where the pixel value lies in the record, from highest to lowest, for that month. That is, red pixels are in the lowest 10% of records for that month of the map using baseline from 2001 to 2019.





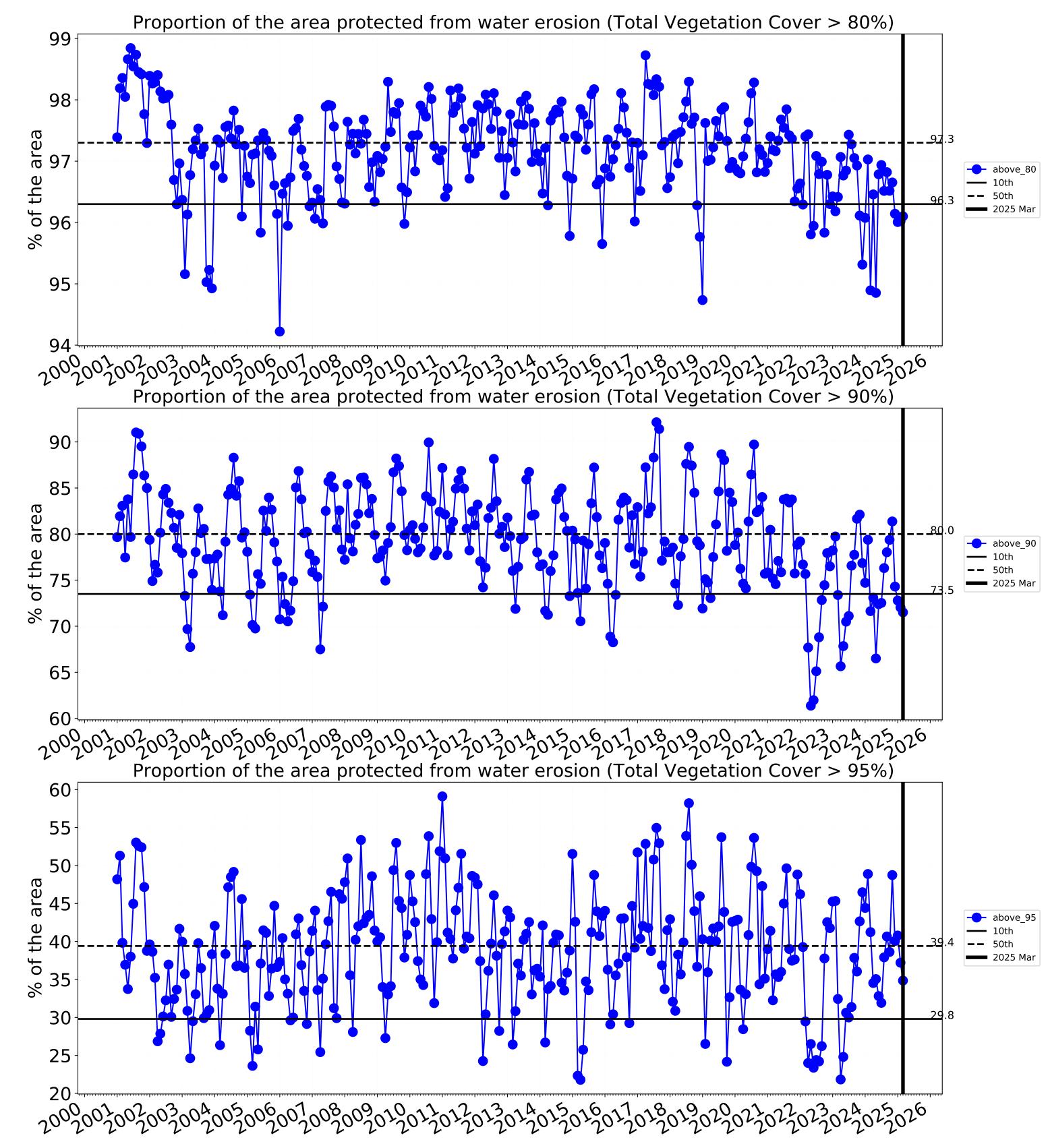


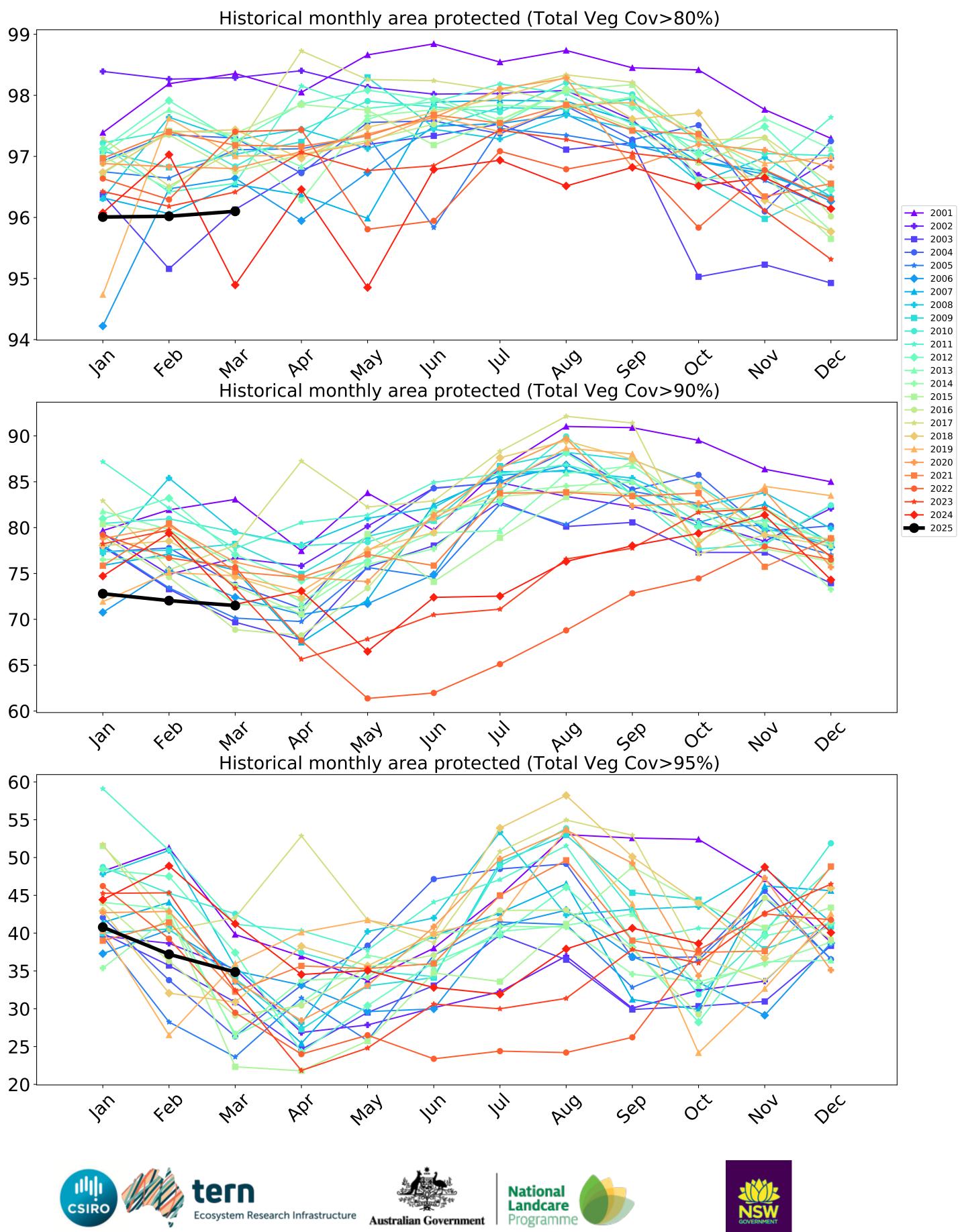




15

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

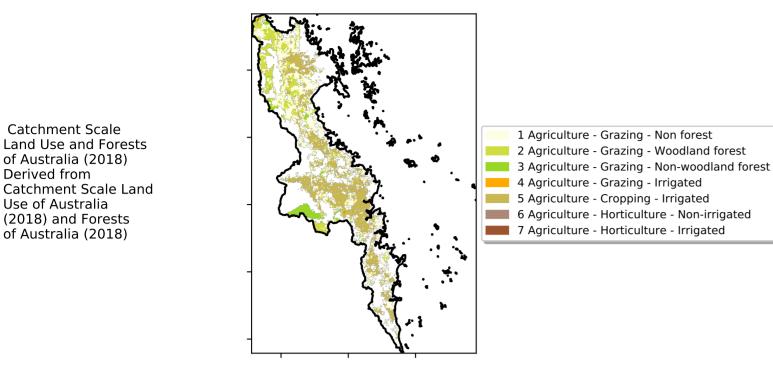




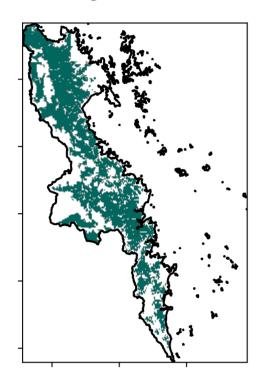


## Agriculture

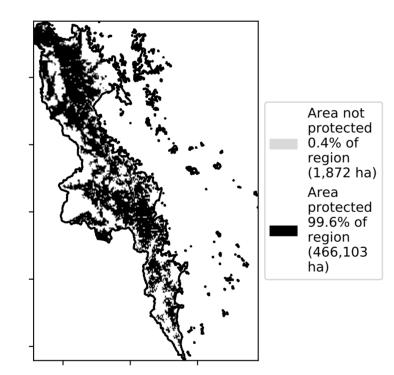
### Land use and forest cover

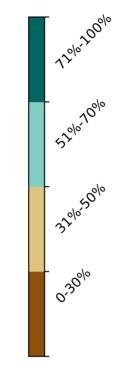


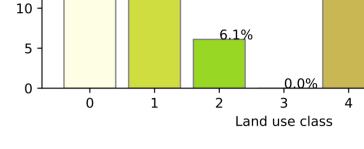
**Total Vegetation Cover [%]** 











17.2%

40

35

30

Area (%) 05 20

15

# 40.4%

36.0%

0.0%

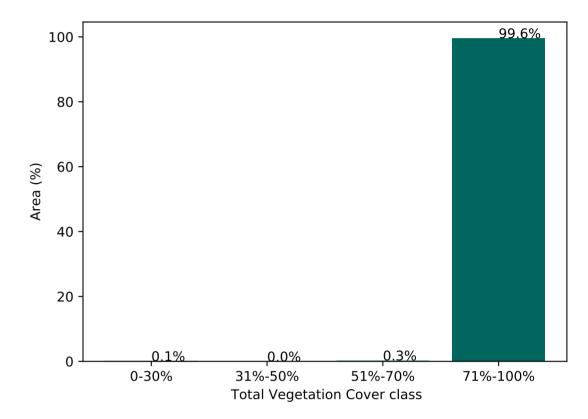
5

0.2%

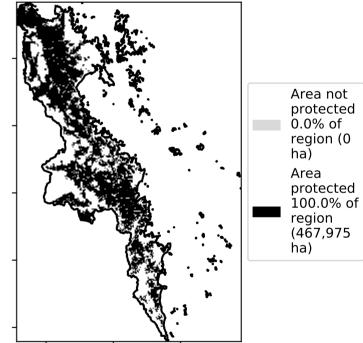
6

Proportion of each land class in area

### Proportion of vegetation cover class in area



% Area protected from wind erosion (>50%)



**Total Vegetation Cover Anomaly [%]** 

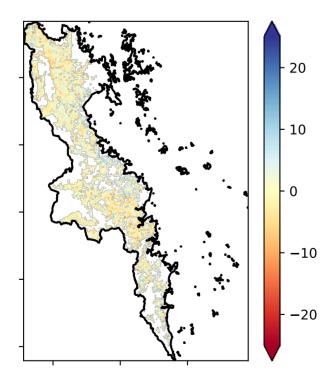
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Catchment Scale

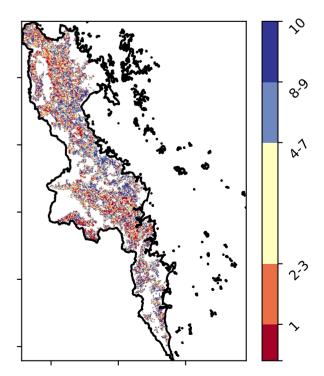
Derived from

Use of Australia

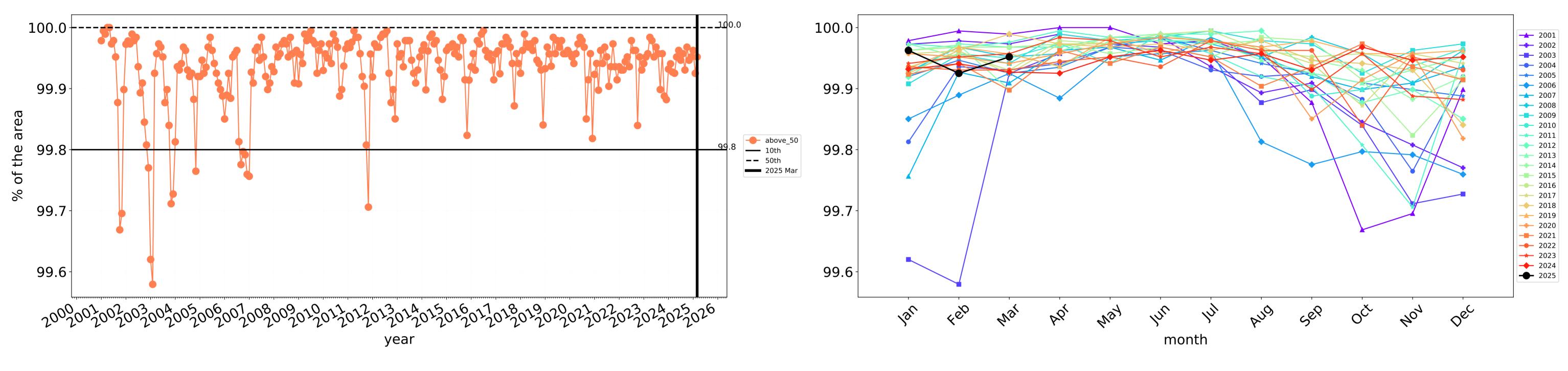
of Australia (2018)



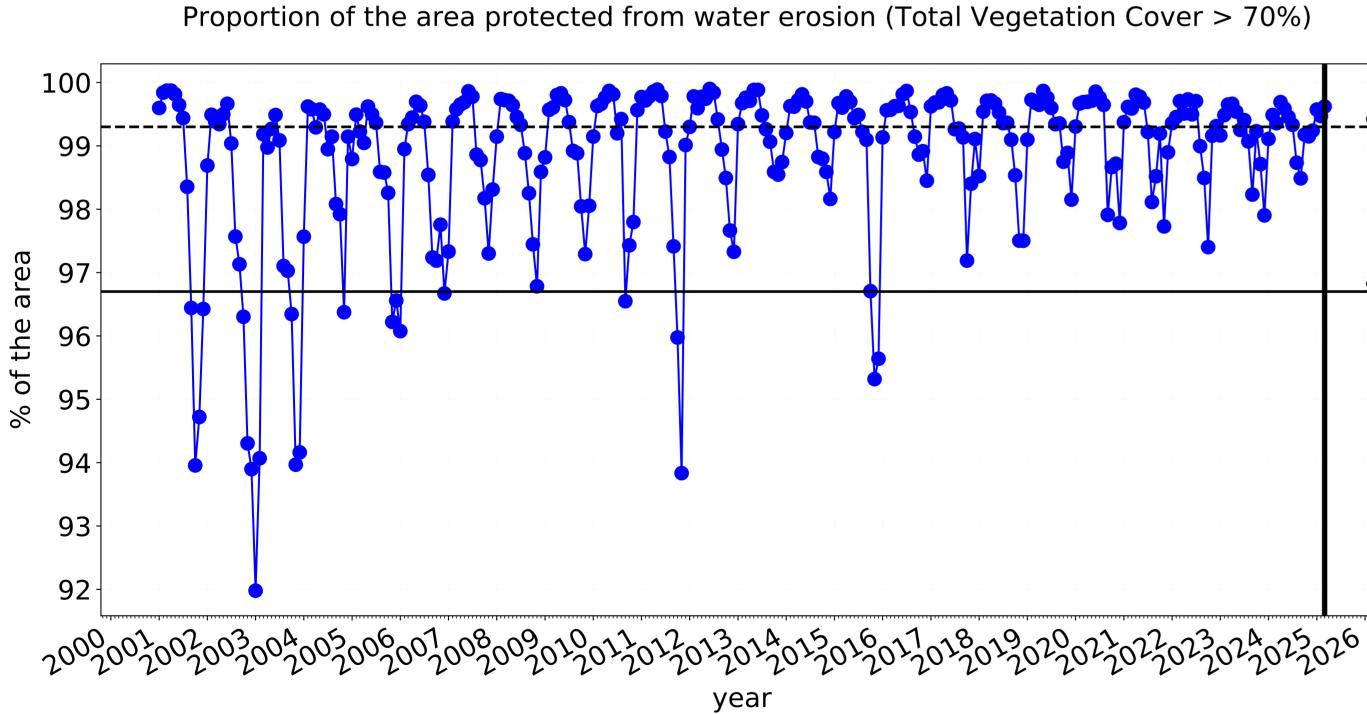
Deciles show where the pixel value lies in the record, from highest to lowest, for that month. That is, red pixels are in the lowest 10% of records for that month of the map using baseline from 2001 to 2019.







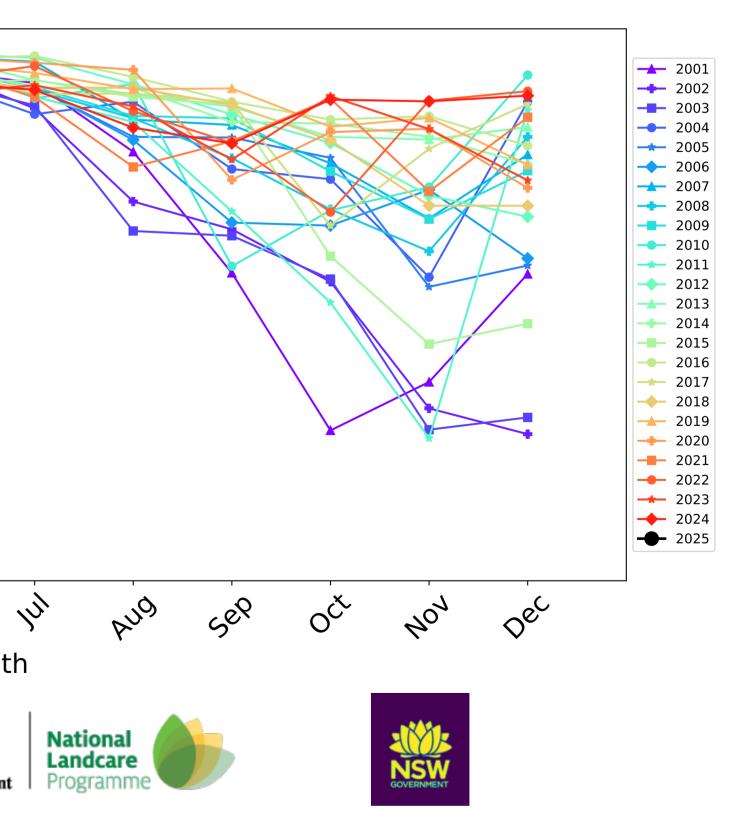
Proportion of the area protected from wind erosion (Total Vegetation Cover > 50%)

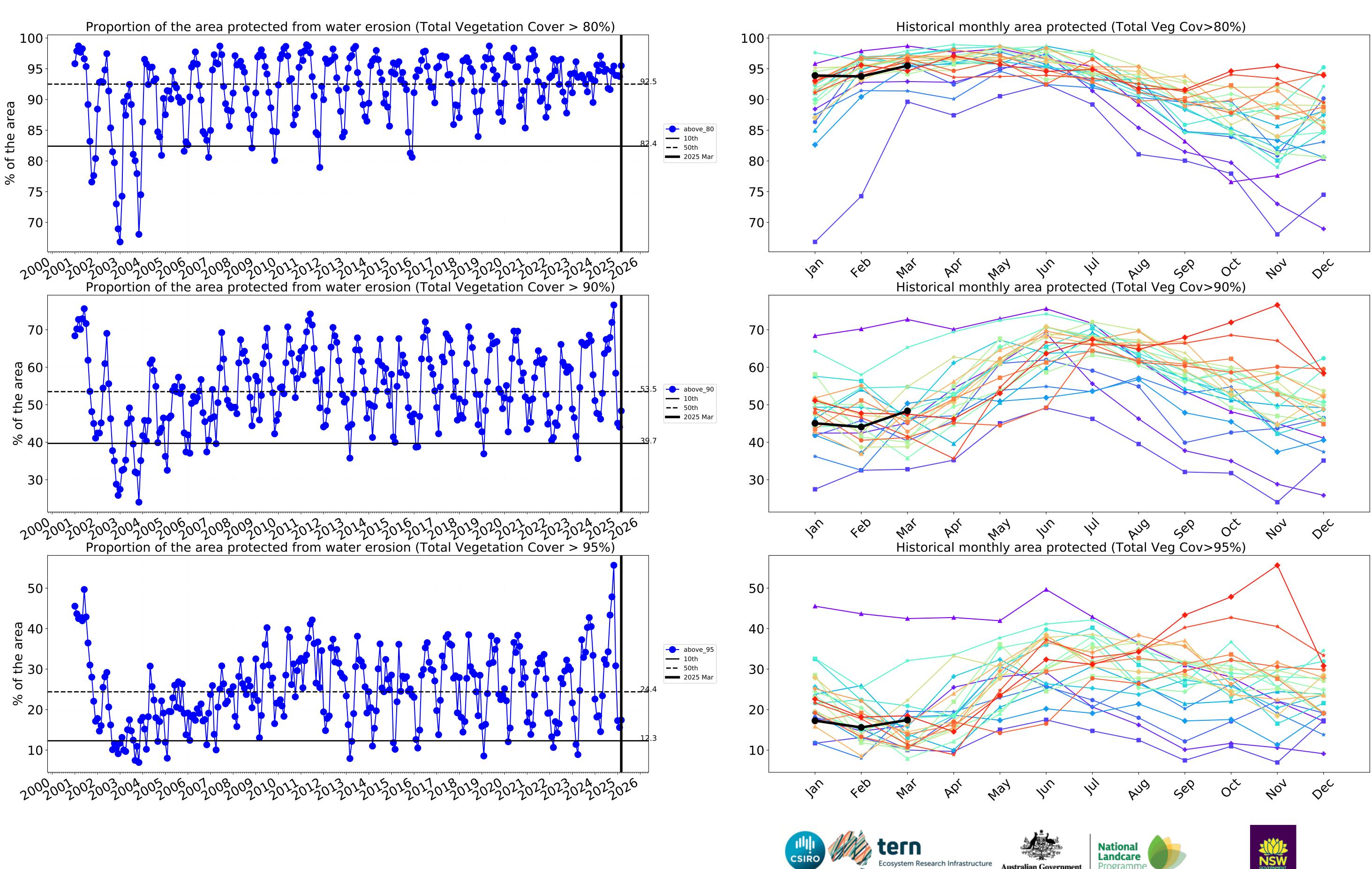


Wind erosion historical monthly area protected (Total Veg Cov >50%)

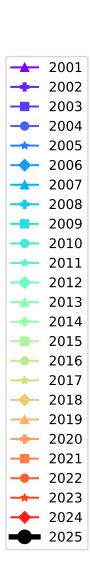
100 99 98 ---- above\_70 97 **——** 10th **——** 50th **—** 2025 Mar 96 95 94 93 92 Jan 4eb In Mai May PG, month tern Ecosystem Research Infrastructure Australian Government

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





Ecosystem Research Infrastructure Australian Government



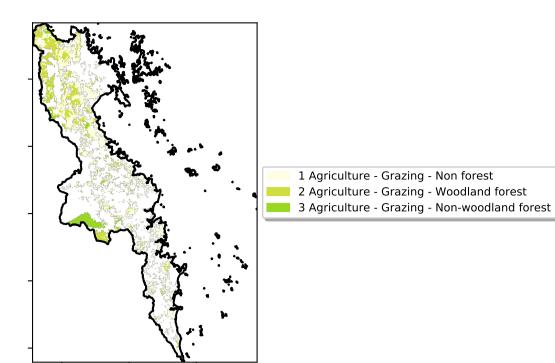




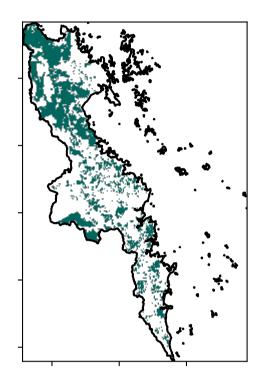
## Grazing

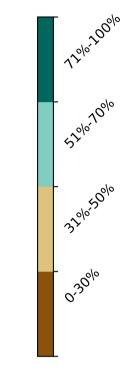
Land use and forest cover

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

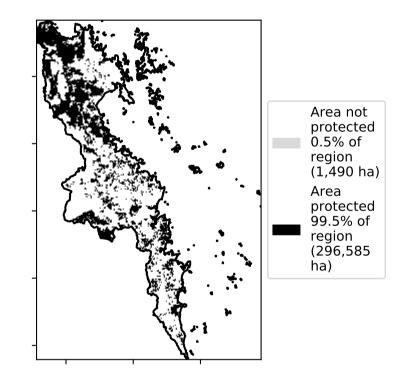


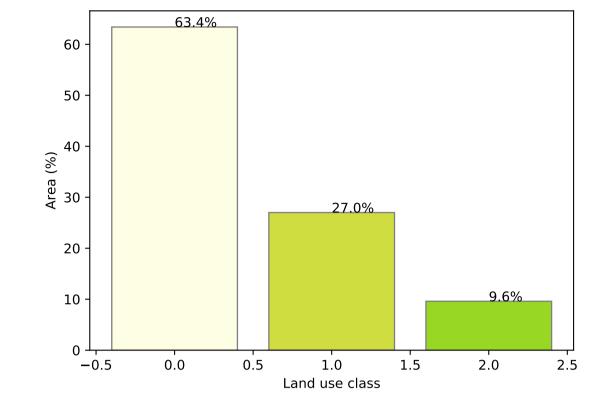
Total Vegetation Cover [%]





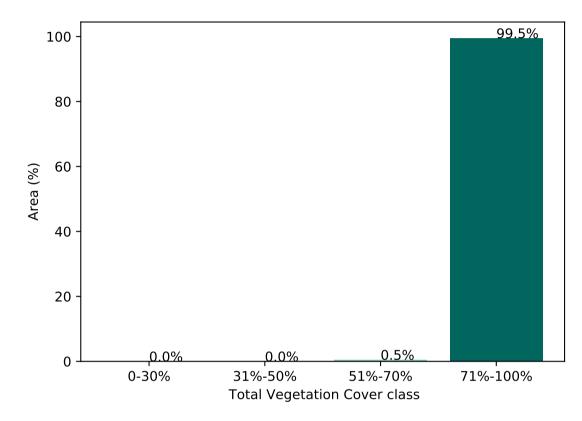
% Area protected from water erosion (>70%)





### Proportion of each land class in area

Proportion of vegetation cover class in area

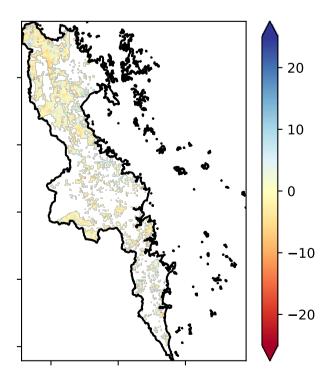


% Area protected from wind erosion (>50%)



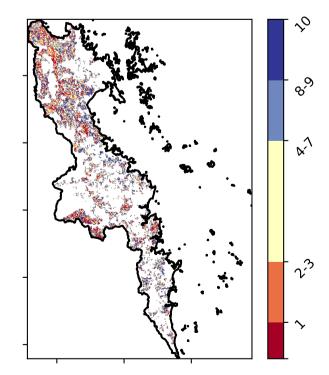
**Total Vegetation Cover Anomaly [%]** 

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.



region (0 ha) Area protected 100.0% of region (298,075 ha)

**Total Vegetation Cover Decile [%]** 





Deciles show where the

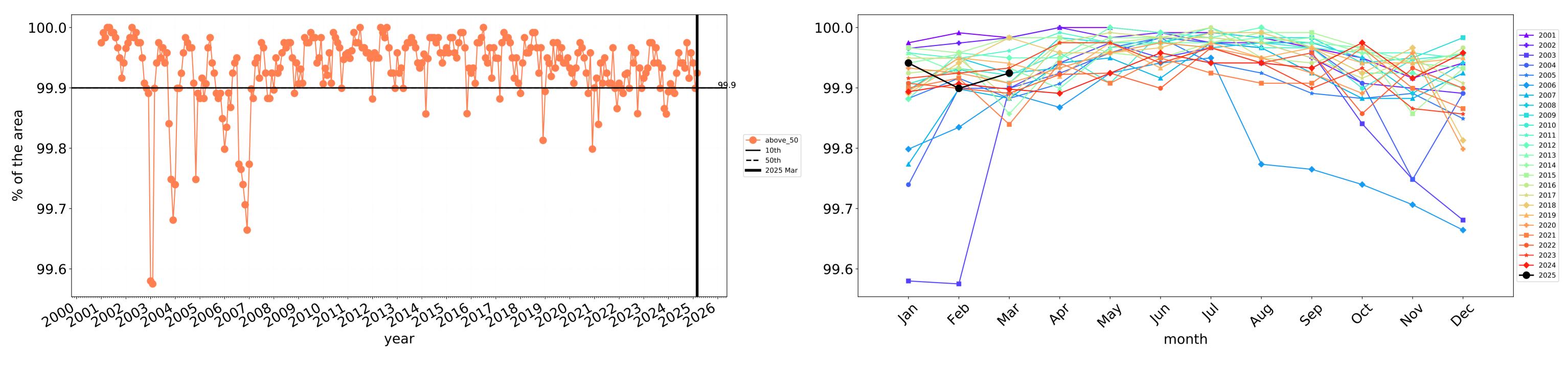
pixel value lies in the

record, from highest to lowest, for that month. That is, red pixels are

records for that month of

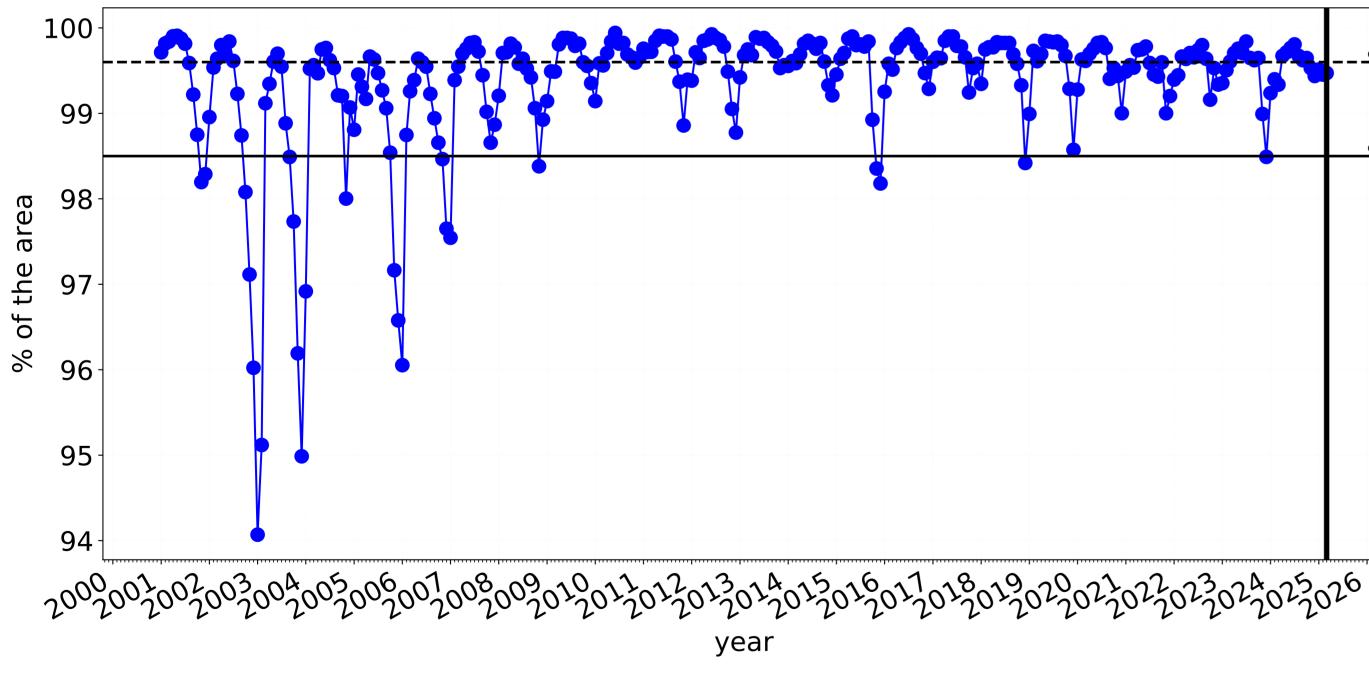
the map using baseline from 2001 to 2019.

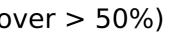
in the lowest 10% of



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





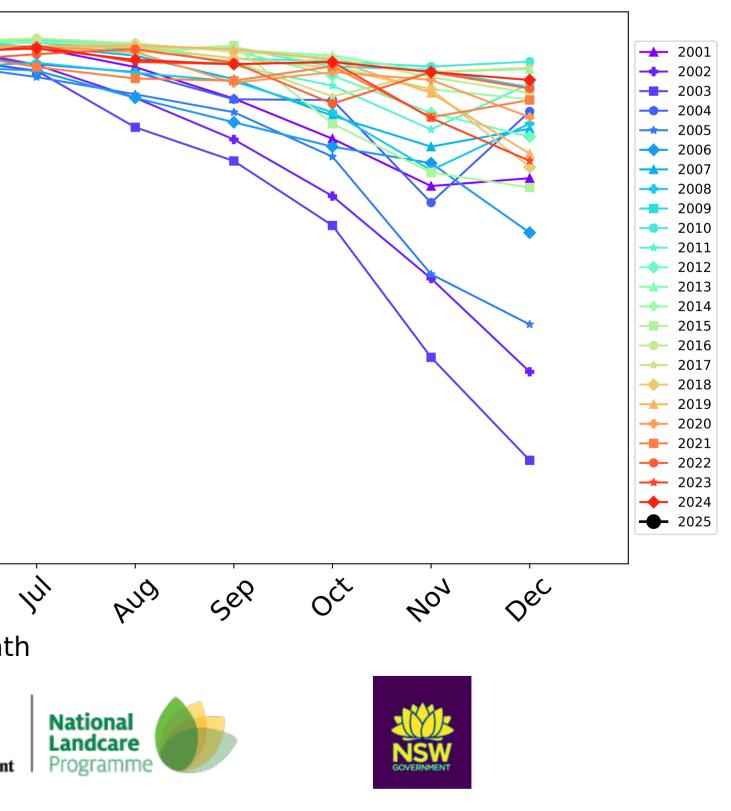


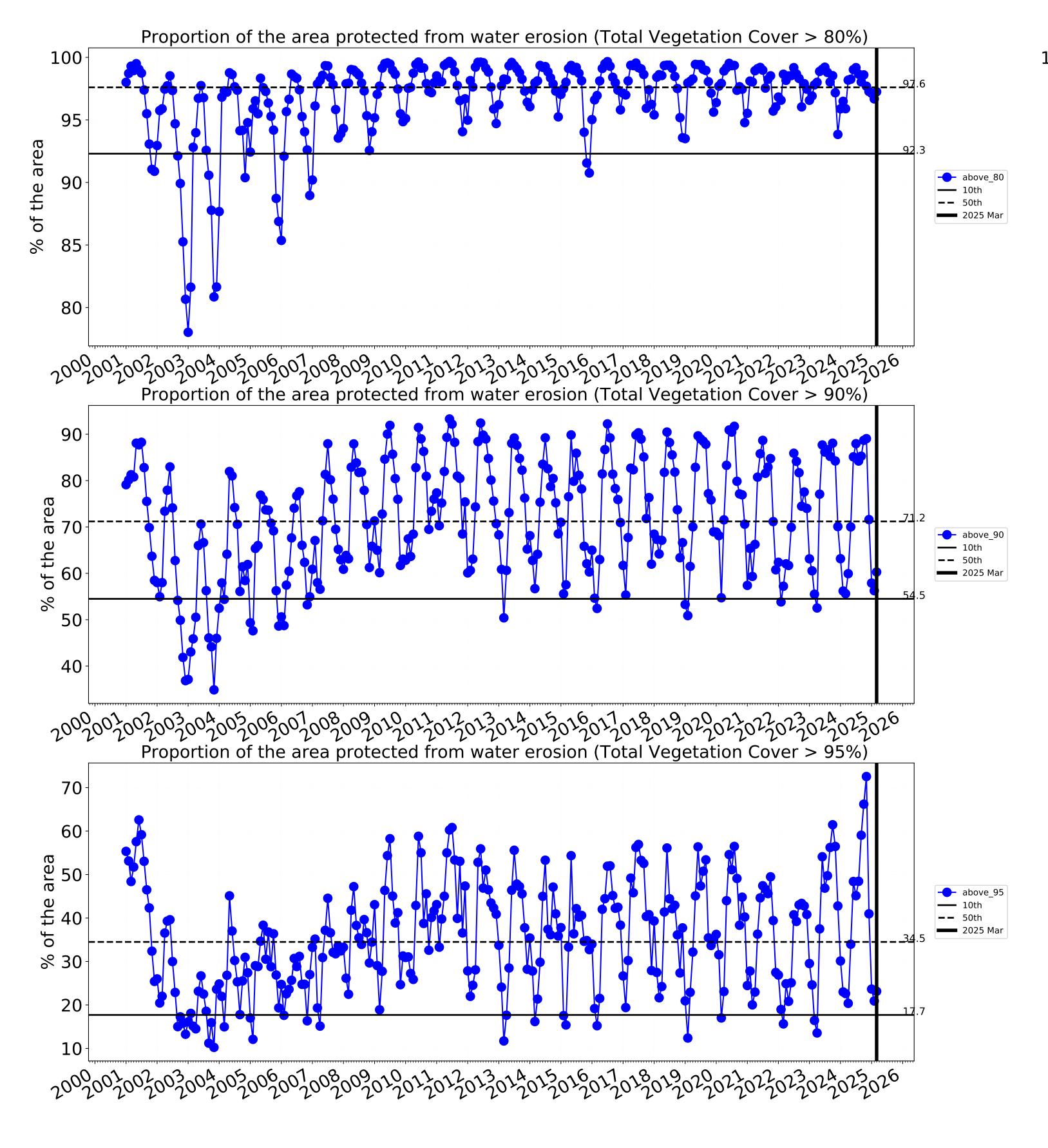
Wind erosion historical monthly area protected (Total Veg Cov >50%)

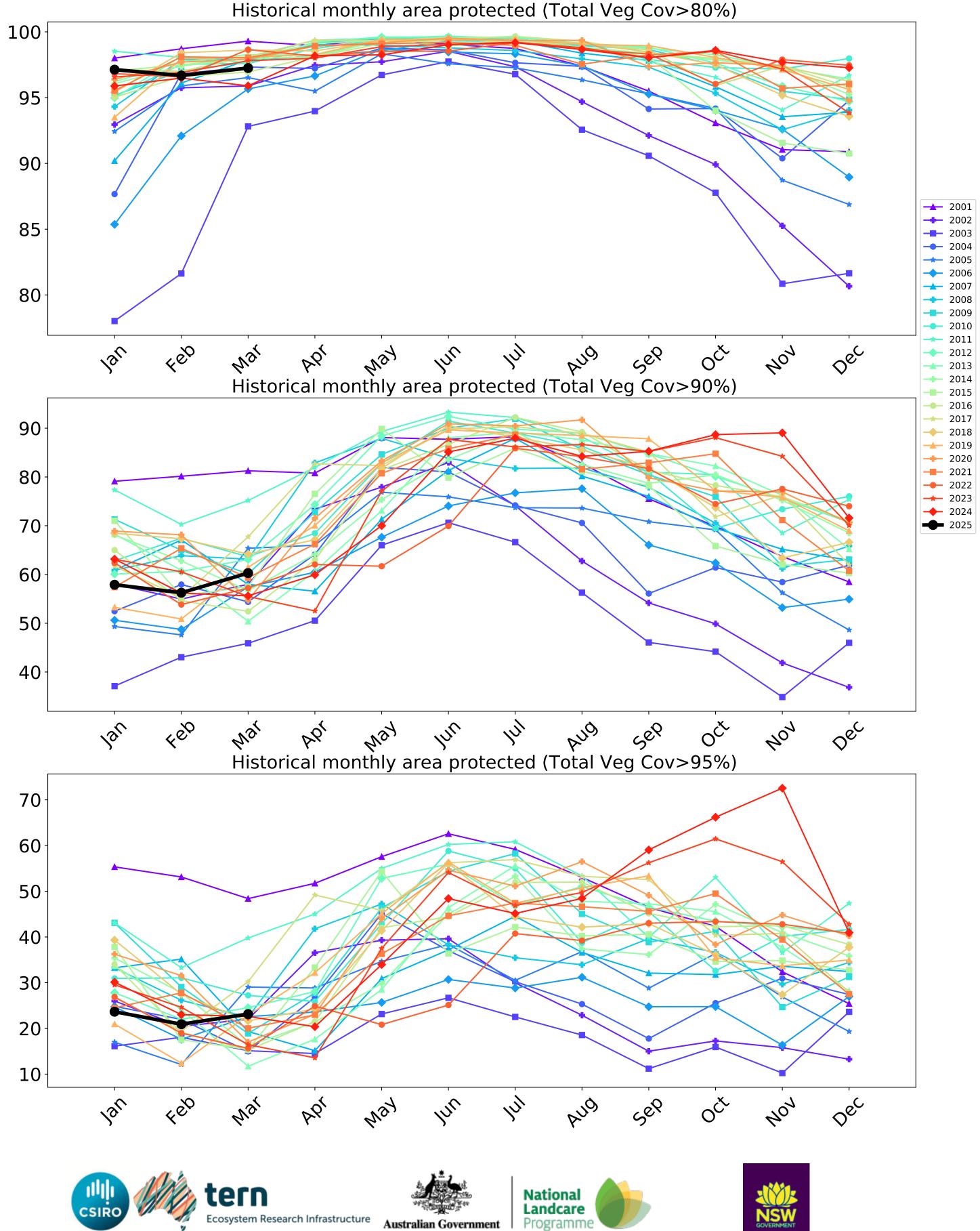
---- above\_70 **—** 10th **——** 50th **—** 2025 Mar

100-99 98 97 96 95 94 Par 4eb way In Mai Þb, month tern Ecosystem Research Infrastructure Australian Government

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



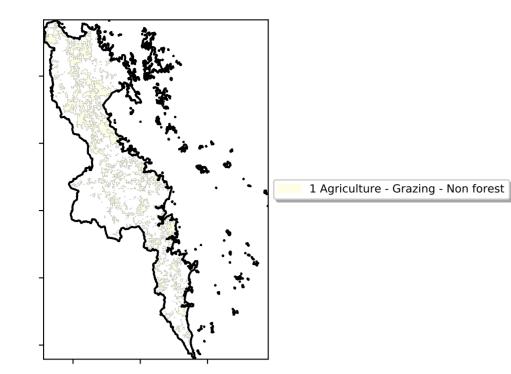




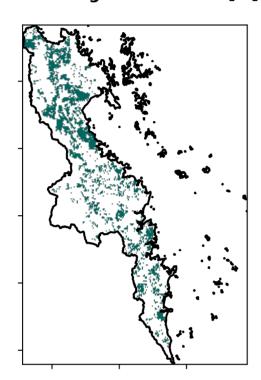


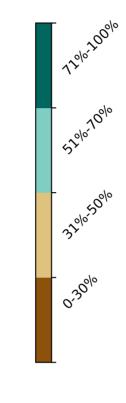
## **Grazing non forest**

Land use and forest cover

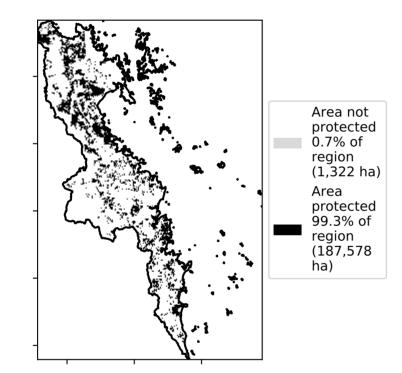


**Total Vegetation Cover [%]** 

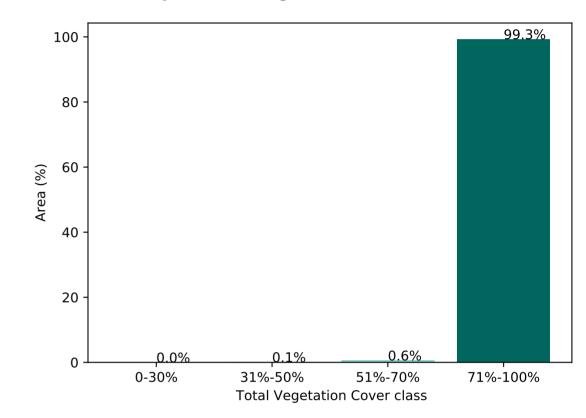




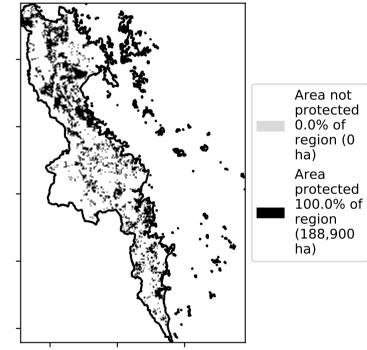
% Area protected from water erosion (>70%)



Proportion of vegetation cover class in area



% Area protected from wind erosion (>50%)

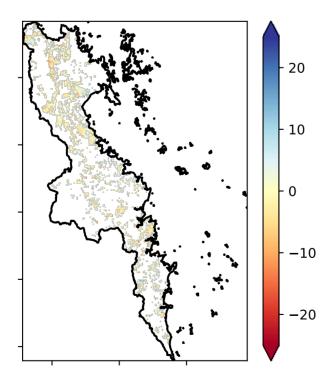


Land Use and Forests of Australia (2018) Derived from Catchment Scale Land Use of Australia (2018) and Forests of Australia (2018)

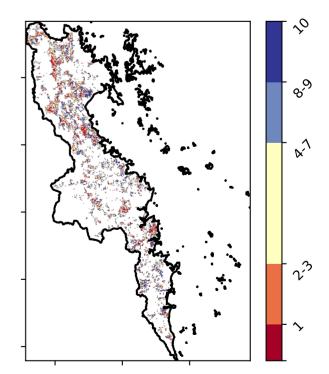
Catchment Scale

**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.

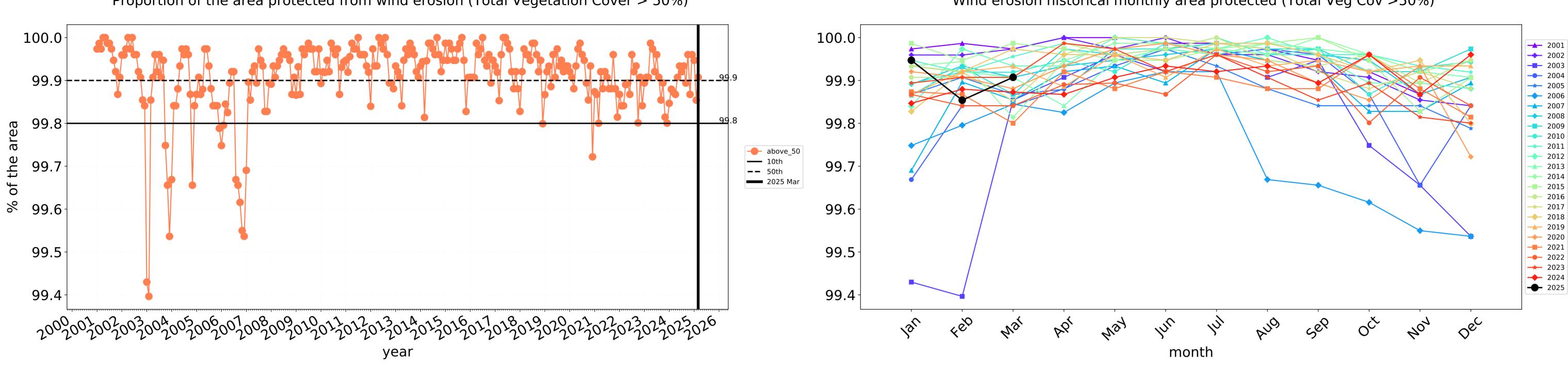


Deciles show where the pixel value lies in the record, from highest to lowest, for that month. That is, red pixels are in the lowest 10% of records for that month of the map using baseline from 2001 to 2019.

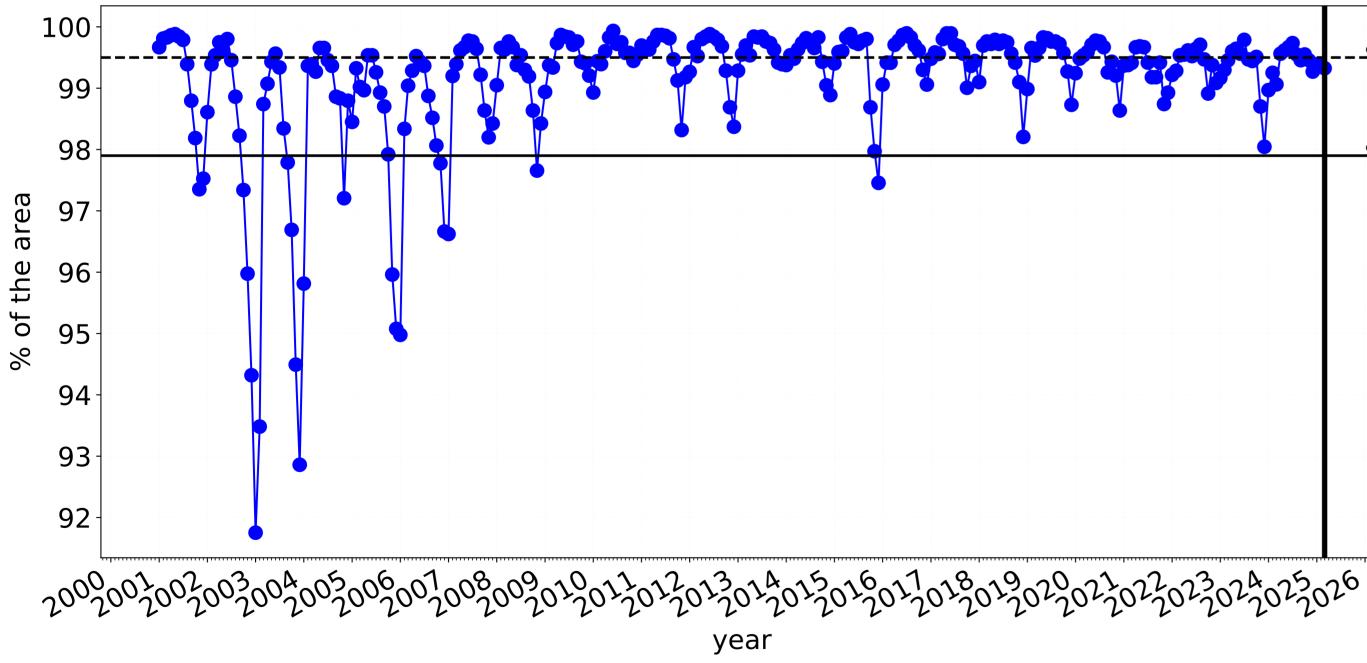








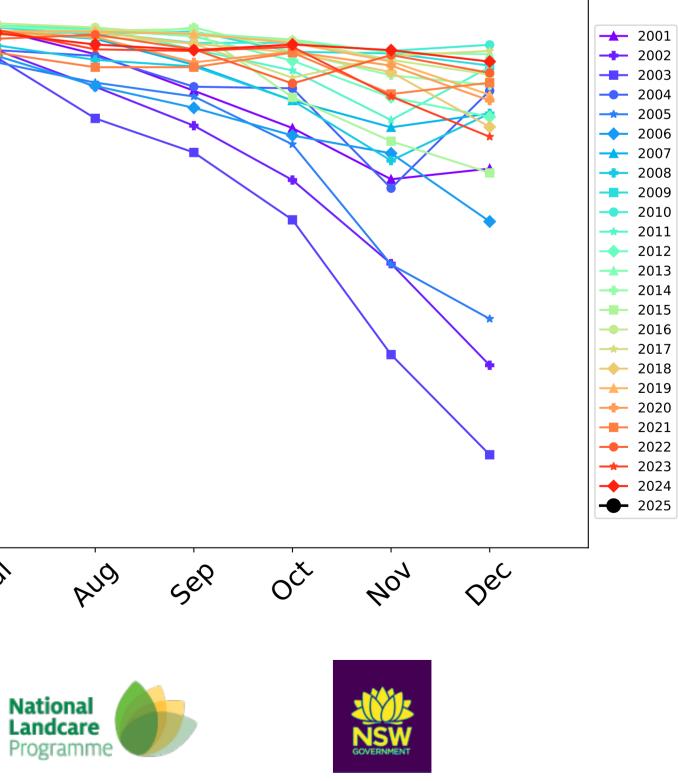
Proportion of the area protected from wind erosion (Total Vegetation Cover > 50%)

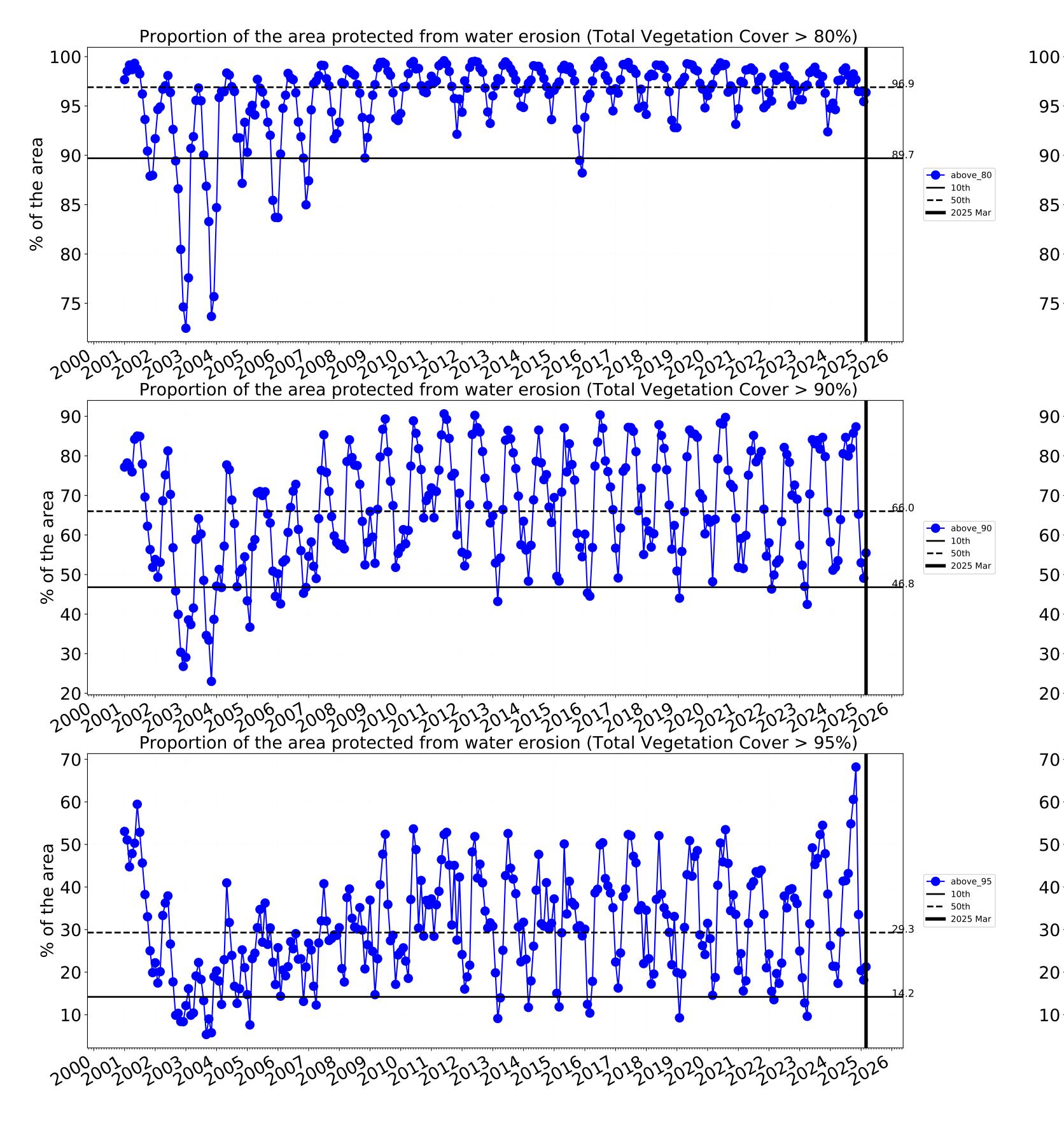


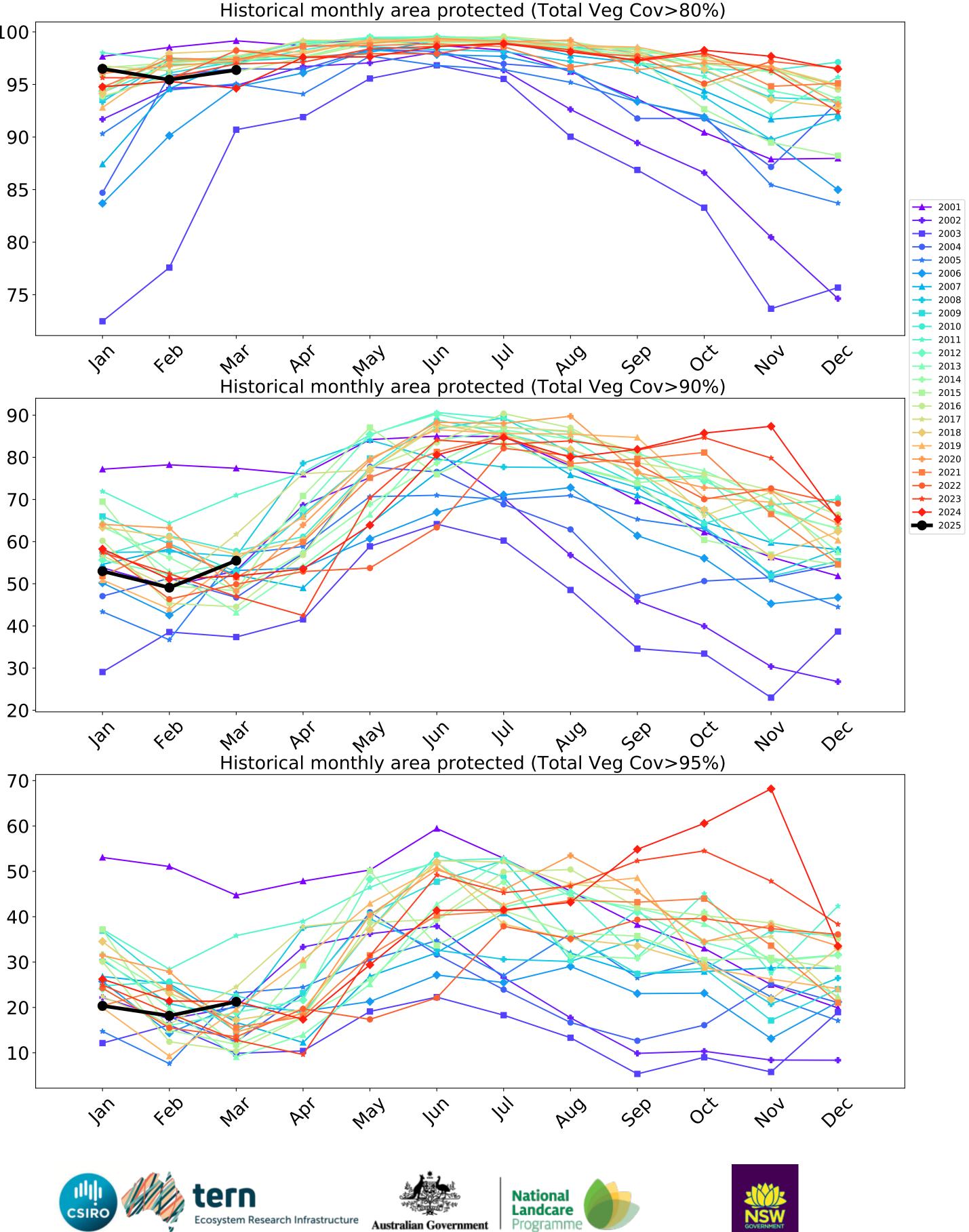
100-99 98 ---- above\_70 97 **——** 10th **——** 50th **—** 2025 Mar 96 95 94 93 92 4e0 Jan way In Mai PQ 1<sup>1</sup>1 month tern Ecosystem Research Infrastructure Australian Government

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

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

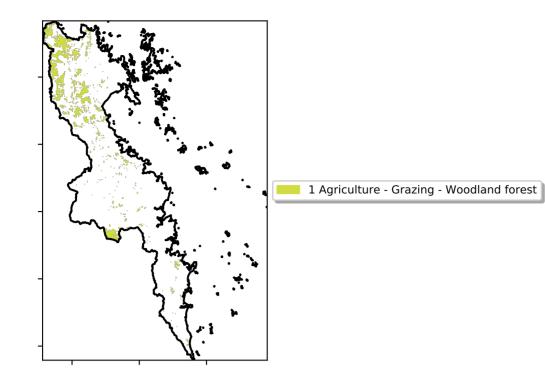




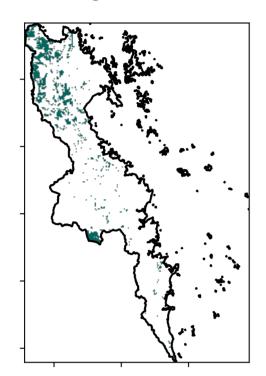


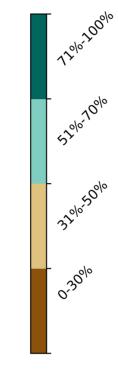
## **Grazing Woodland forest**

Land use and forest cover

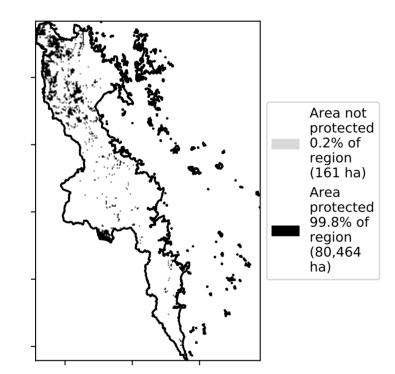


**Total Vegetation Cover [%]** 

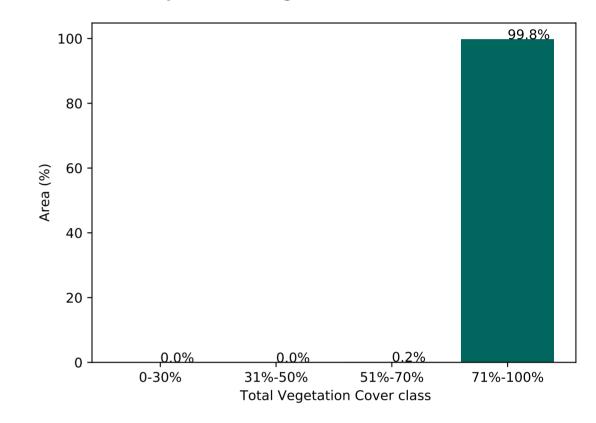




% Area protected from water erosion (>70%)



Proportion of vegetation cover class in area



% Area protected from wind erosion (>50%)



**Total Vegetation Cover Anomaly [%]** 

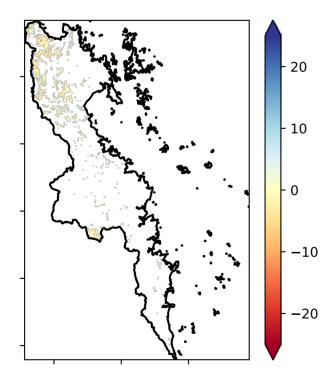
Anomaly show how many percetage points each pixel is from the mean. That is, red pixels are about 20% lower than the mean of that pixel. The mean is only for the month of the map using baseline from 2001 to 2019.

Catchment Scale Land Use and Forests of Australia (2018)

Catchment Scale Land

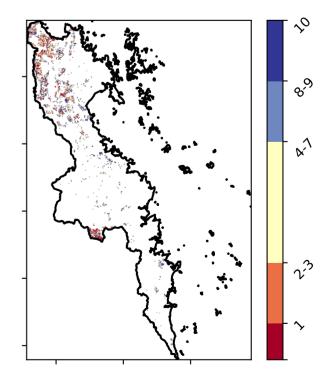
Derived from

Use of Australia (2018) and Forests of Australia (2018)



Area not protected 0.0% of region (0 ha) Area protected 100.0% of region (80,625 ha)

Total Vegetation Cover Decile [%]





Deciles show where the pixel value lies in the

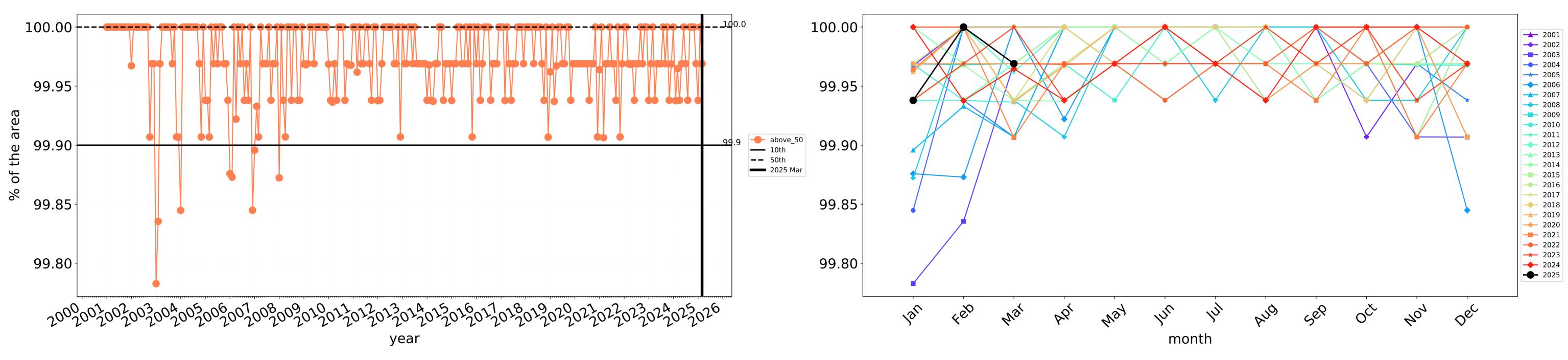
record, from highest to lowest, for that month. That is, red pixels are

records for that month of

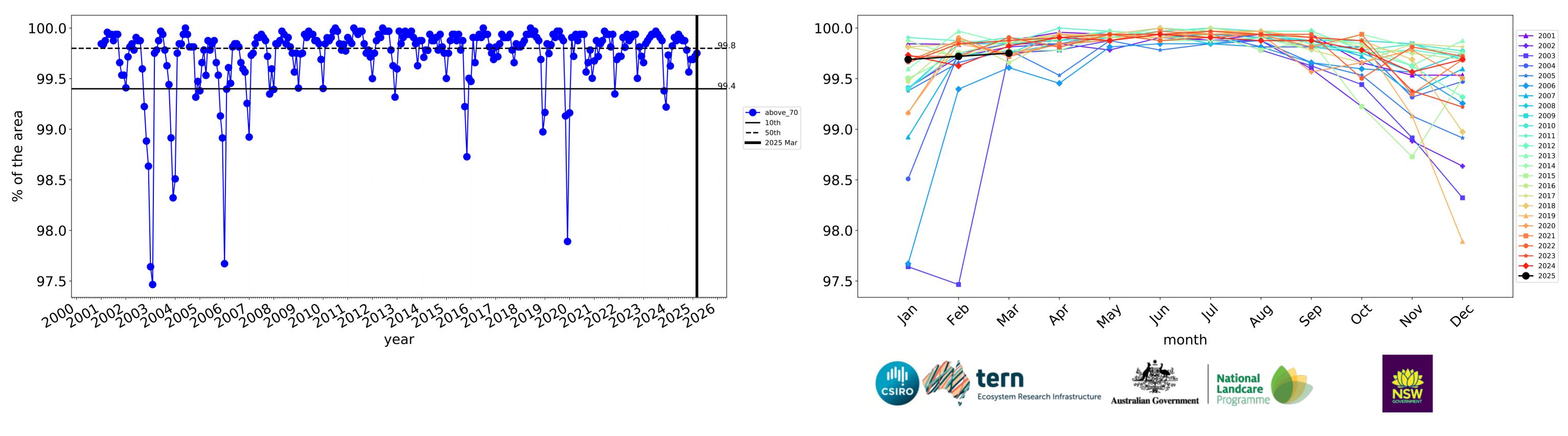
the map using baseline from 2001 to 2019.

in the lowest 10% of

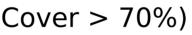




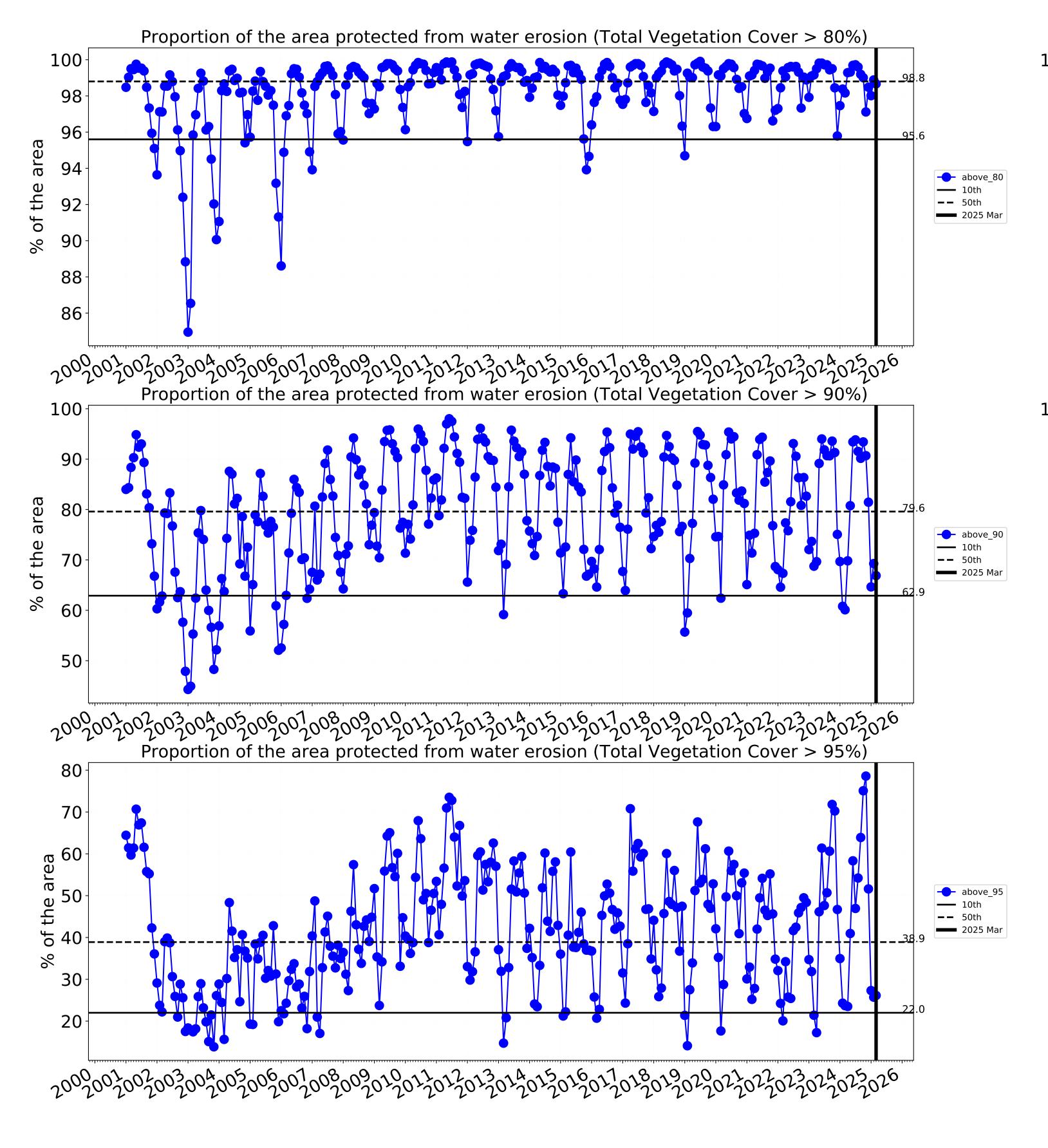
Proportion of the area protected from wind erosion (Total Vegetation Cover > 50%)

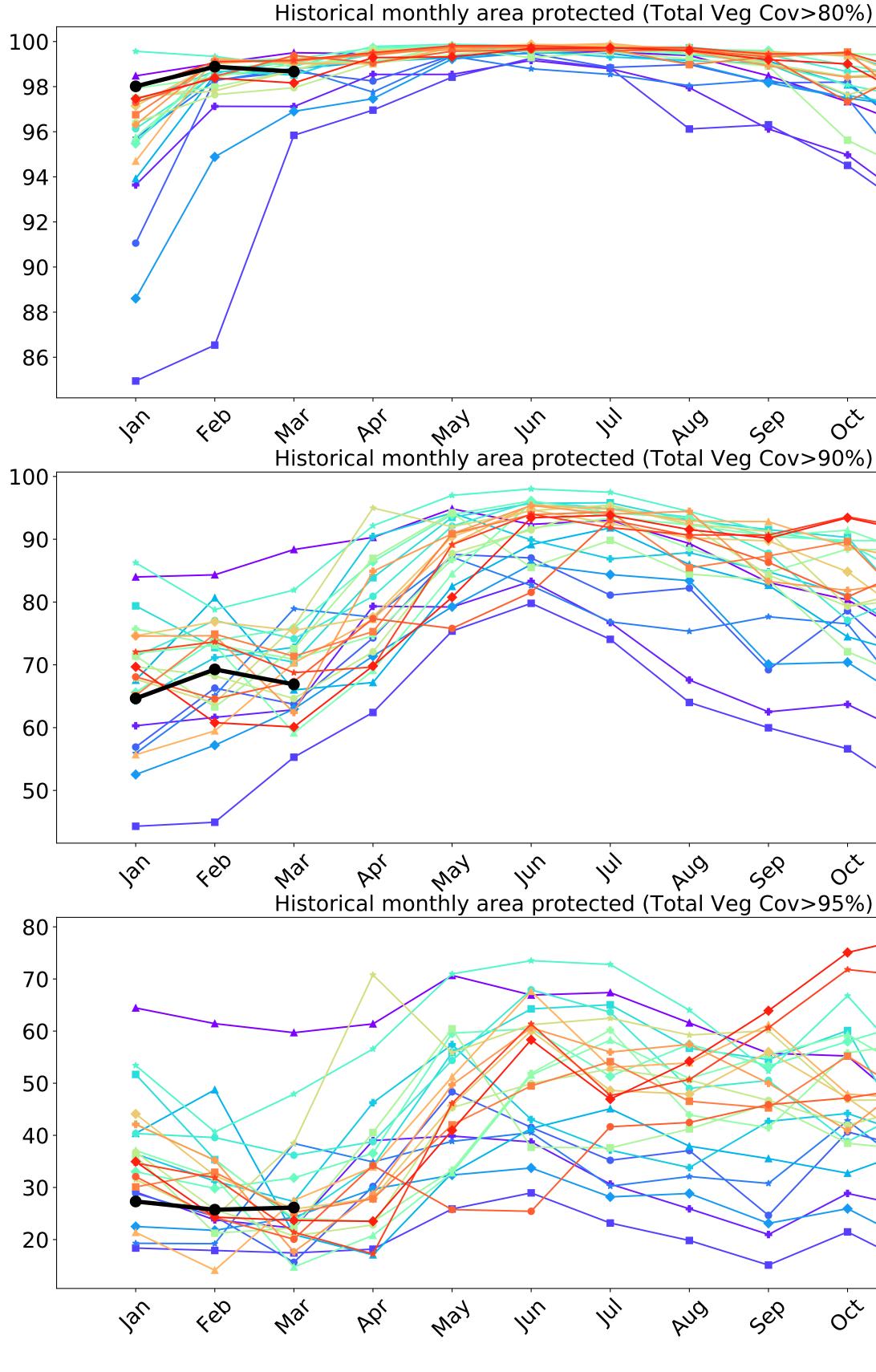


Wind erosion historical monthly area protected (Total Veg Cov >50%)



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







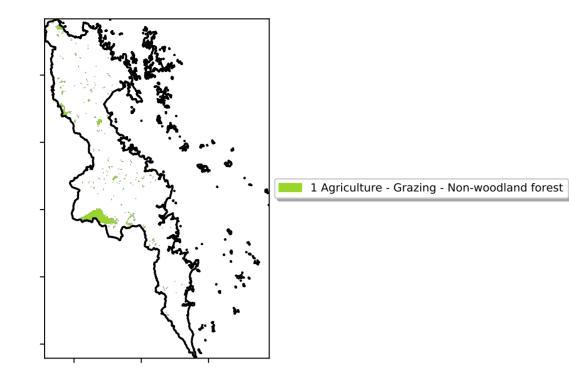
**—** 2001 **---** 2002 **—** 2003 **—** 2004 **----** 2005 ---- 2006 **\_\_\_** 2007 ---- 2008 **\_\_\_** 2009 --- 2010 **---** 2011 401 AUG sel OČ --- 2012 **----** 2013 - 2014 - 2015 --- 2016 ---- 2017 ---- 2018 **----** 2020 **—** 2021 --- 2022 **—** 2023 **—** 2024 **—** 2025 401 Dec AUG Sel OČ AUG sep 401 Dec OČ



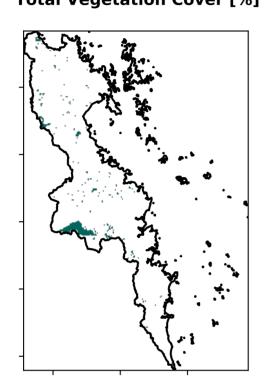


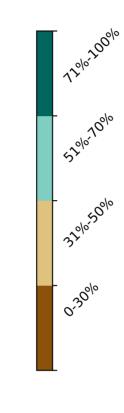
## Grazing - Forest (non woodland)

Land use and forest cover

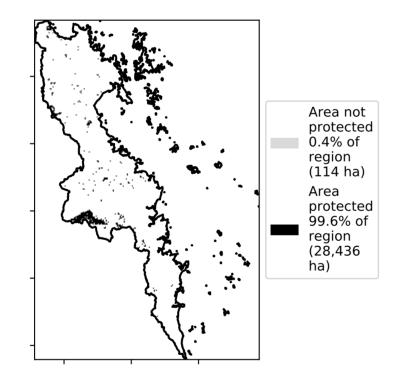


**Total Vegetation Cover [%]** 





% Area protected from water erosion (>70%)



Deciles show where the pixel value lies in the

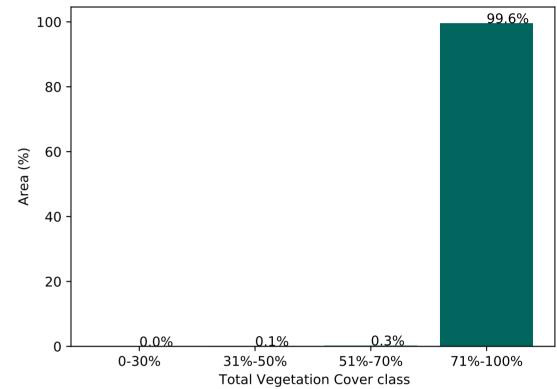
record, from highest to lowest, for that month. That is, red pixels are

in the lowest 10% of

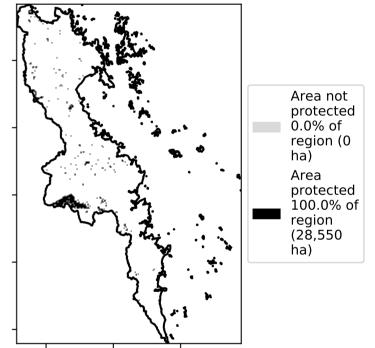
records for that month of

the map using baseline from 2001 to 2019.

Proportion of vegetation cover class in area



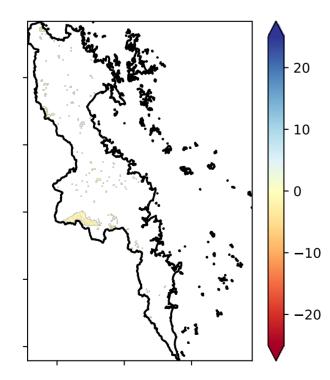
% Area protected from wind erosion (>50%)

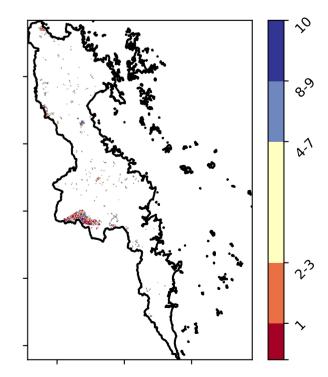


Catchment Scale Land Use and Forests of Australia (2018) Derived from Catchment Scale Land Use of Australia (2018) and Forests of Australia (2018)

**Total Vegetation Cover Anomaly [%]** 

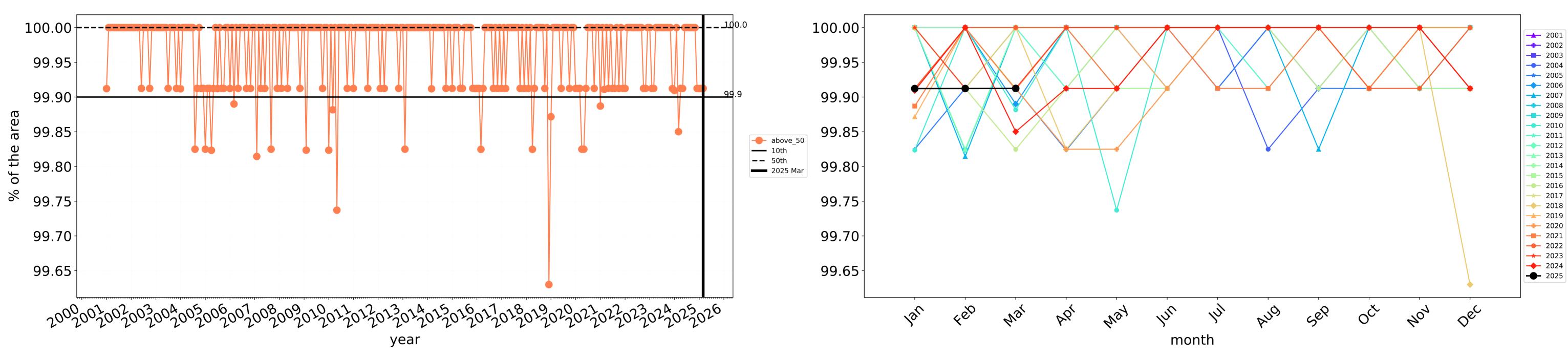
Anomaly show how many percetage points each pixel is from the mean. That is, red pixels are about 20% lower than the mean of that pixel. The mean is only for the month of the map using baseline from 2001 to 2019.



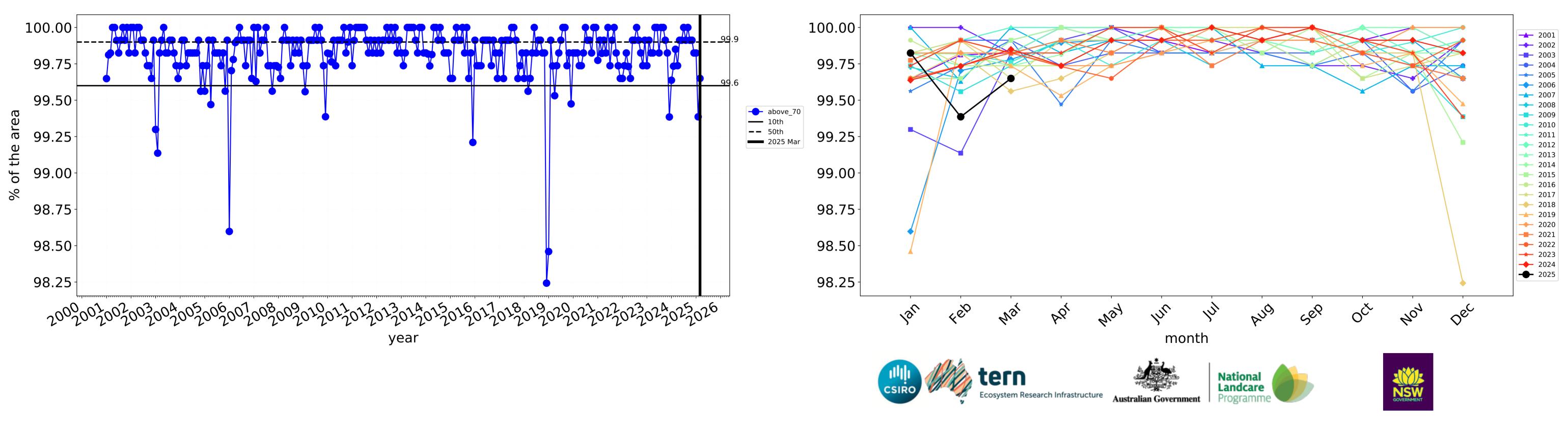


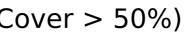






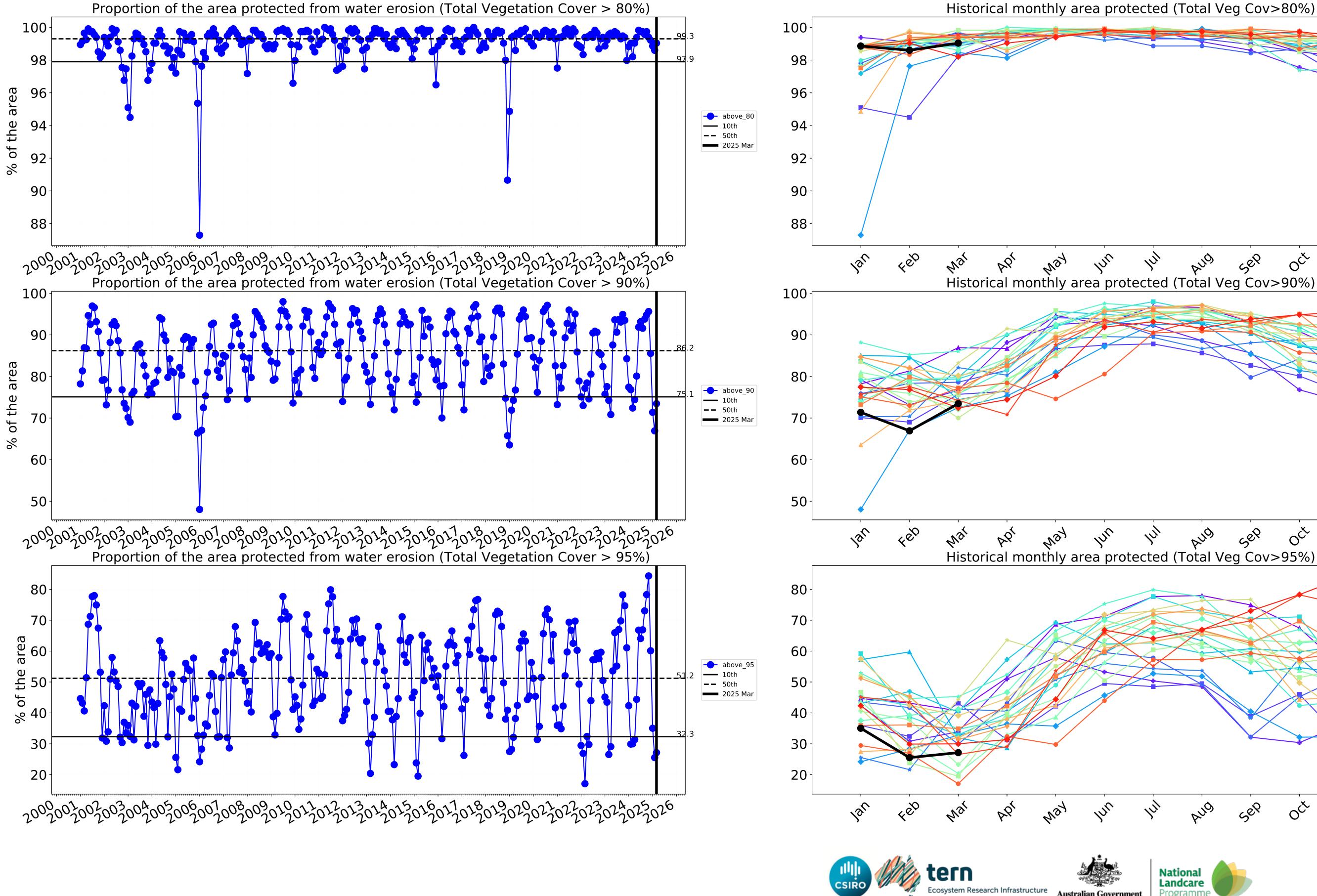
Proportion of the area protected from water erosion (Total Vegetation Cover > 70%)





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

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



3**4** 

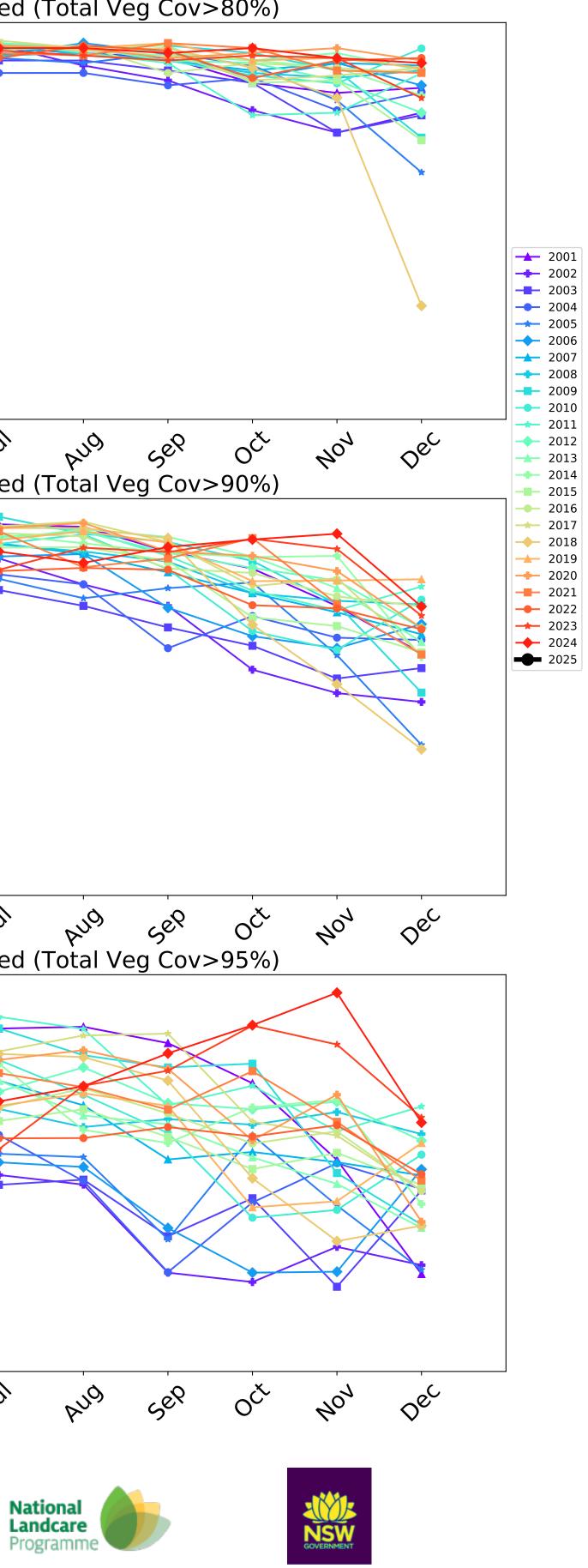
Australian Government

Ecosystem Research Infrastructure

Historical monthly area protected (Total Veg Cov>80%)

(J)

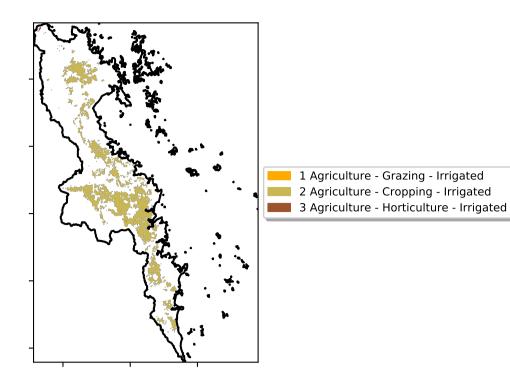
1/2/



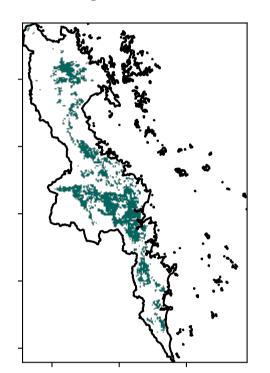
## Irrigation

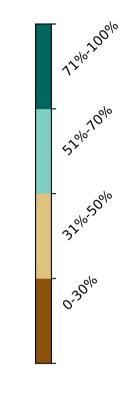
Land use and forest cover

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

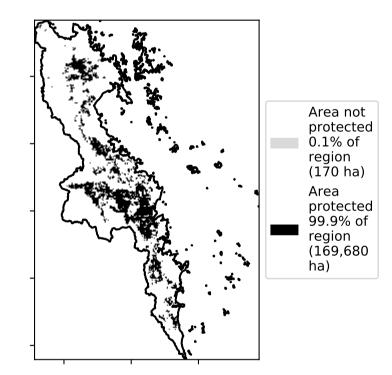


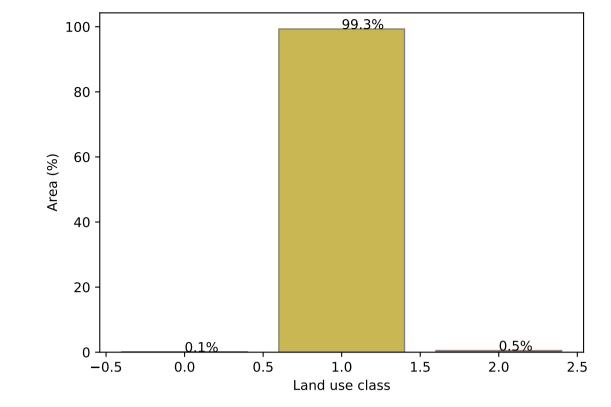
**Total Vegetation Cover [%]** 





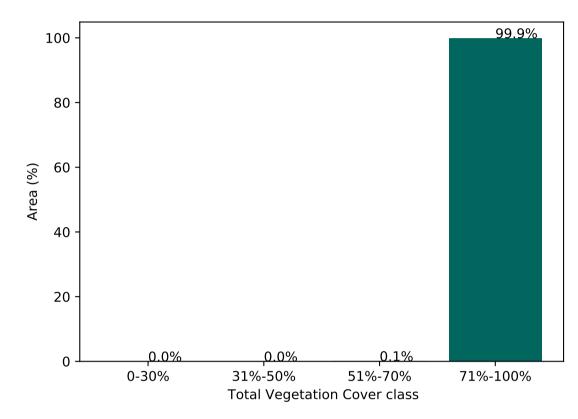
% Area protected from water erosion (>70%)





### Proportion of each land class in area

Proportion of vegetation cover class in area

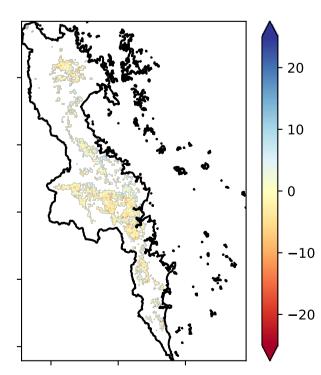


% Area protected from wind erosion (>50%)

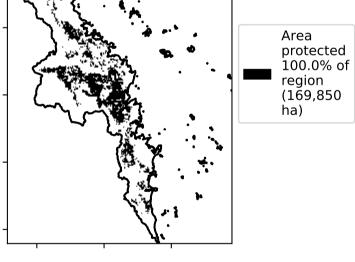


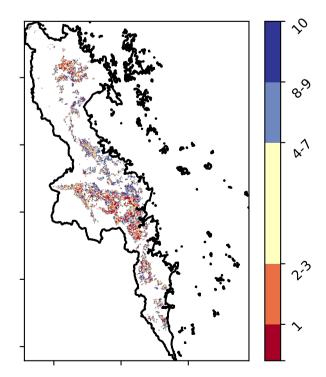
**Total Vegetation Cover Anomaly [%]** 

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.



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.

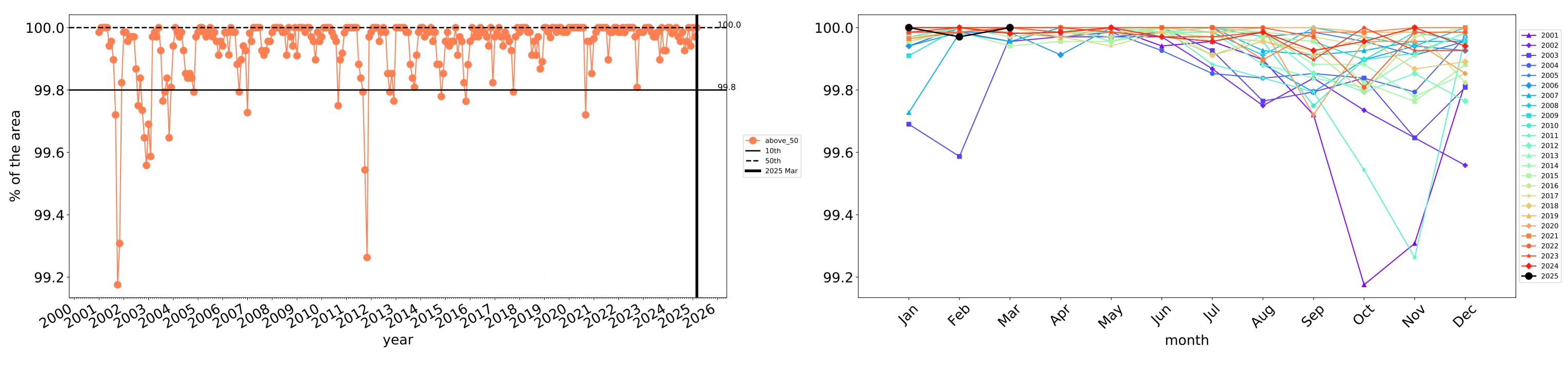




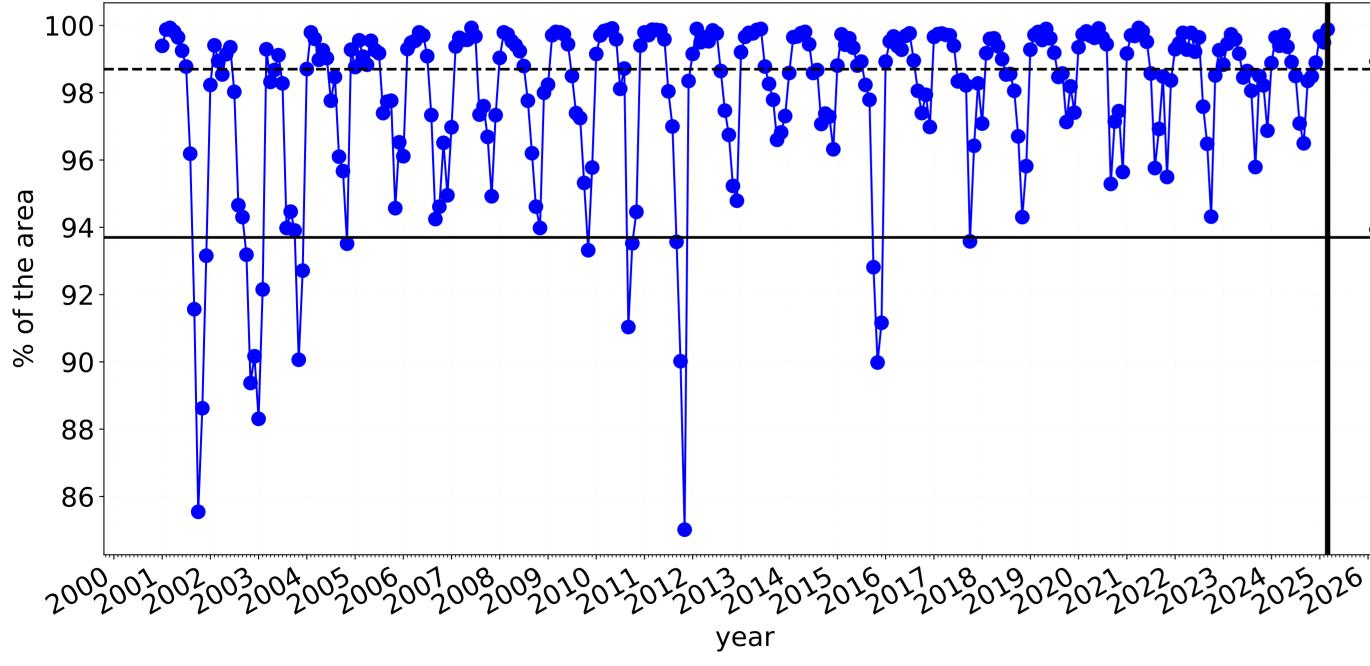


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Proportion of the area protected from wind erosion (Total Vegetation Cover > 50%)

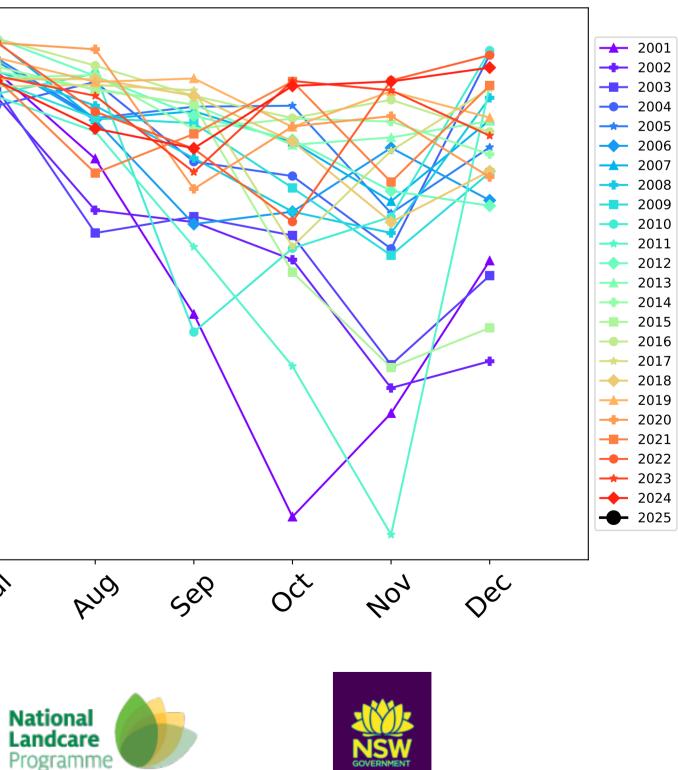


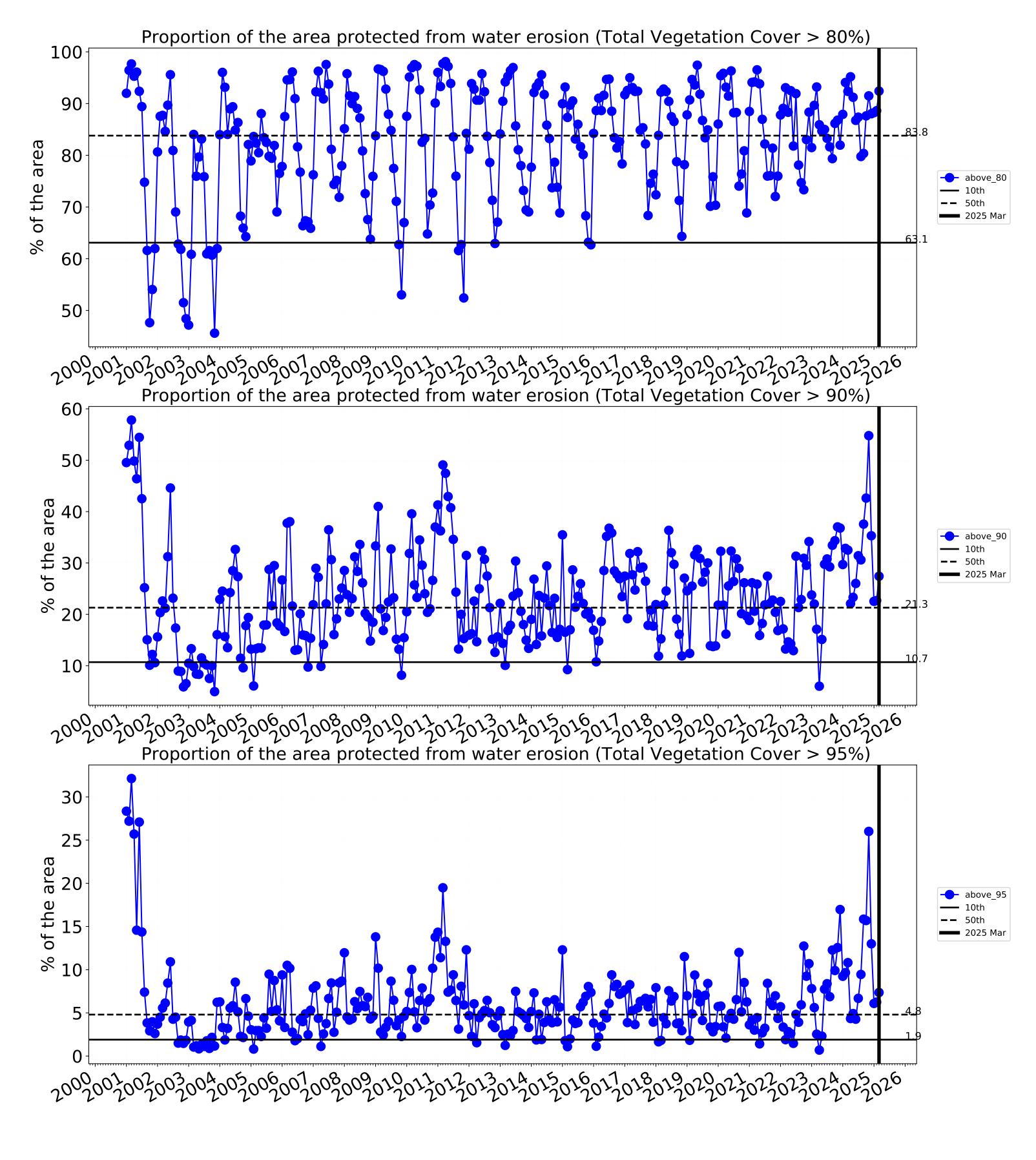
Wind erosion historical monthly area protected (Total Veg Cov >50%)

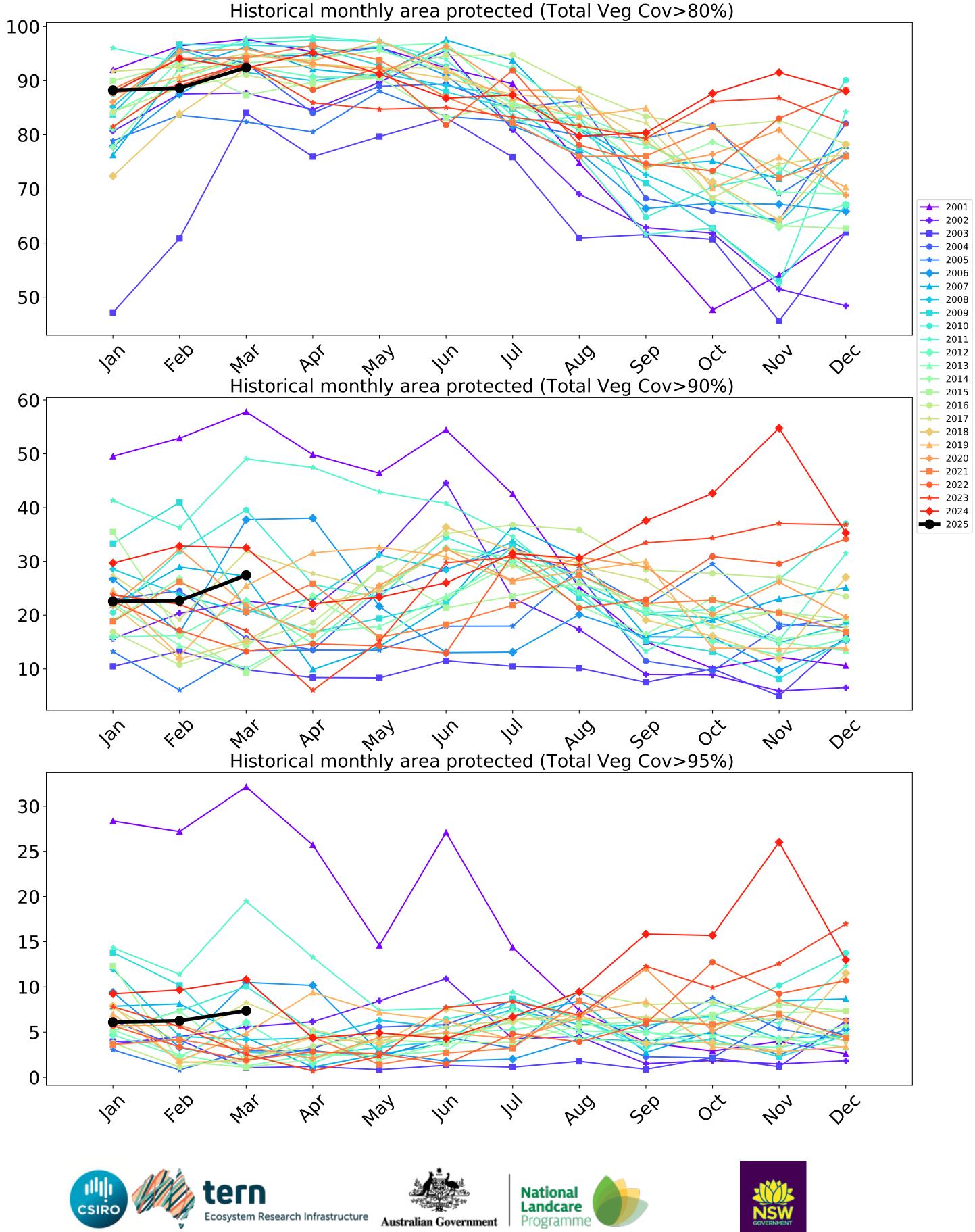
100 98 96 ---- above\_70 **—** 10th 94 **——** 50th **——** 2025 Mar 92 90 88 86 4eb Par In way Mai 1<sup>1</sup>/<sub>1</sub> PQ' month tern Ecosystem Research Infrastructure Programme

Australian Government

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



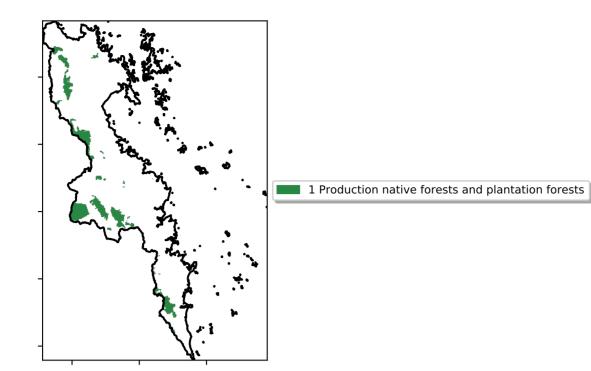




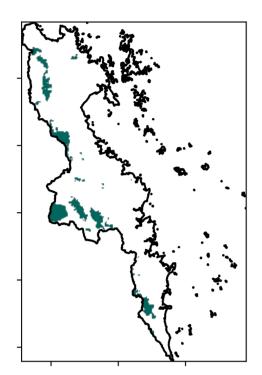


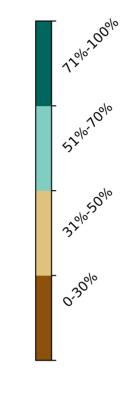
## **Production native forests and plantation forests**

Land use and forest cover

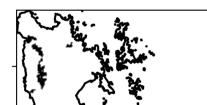


**Total Vegetation Cover [%]** 

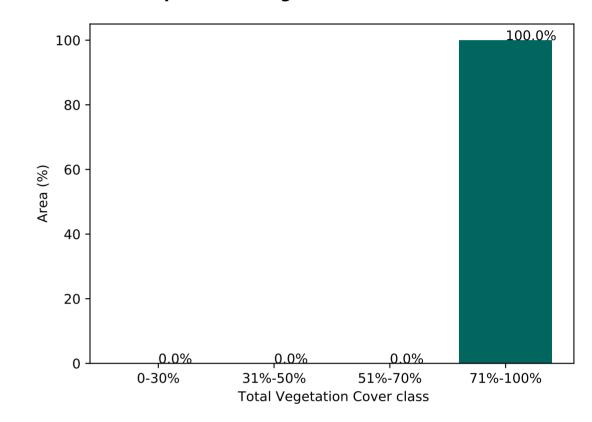




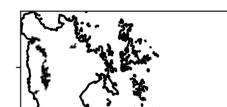
% Area protected from water erosion (>70%)



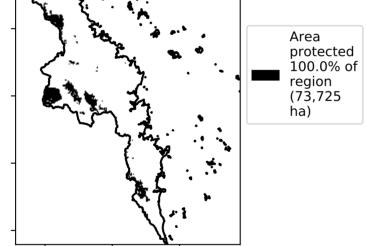
Proportion of vegetation cover class in area



% Area protected from wind erosion (>50%)

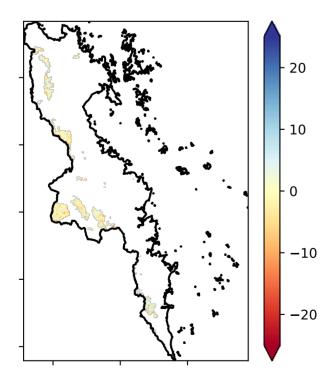


Catchment Scale Land Use and Forests of Australia (2018) Derived from Catchment Scale Land Use of Australia (2018) and Forests of Australia (2018)

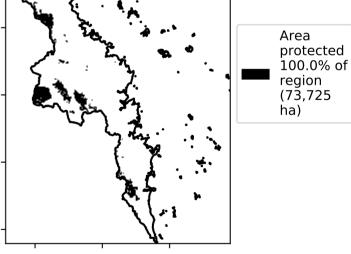


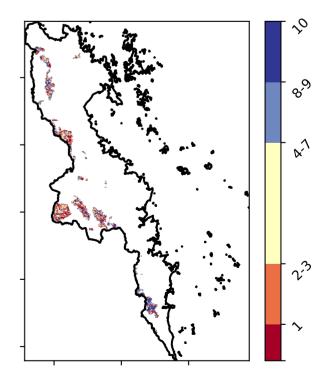
**Total Vegetation Cover Anomaly [%]** 

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.



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.

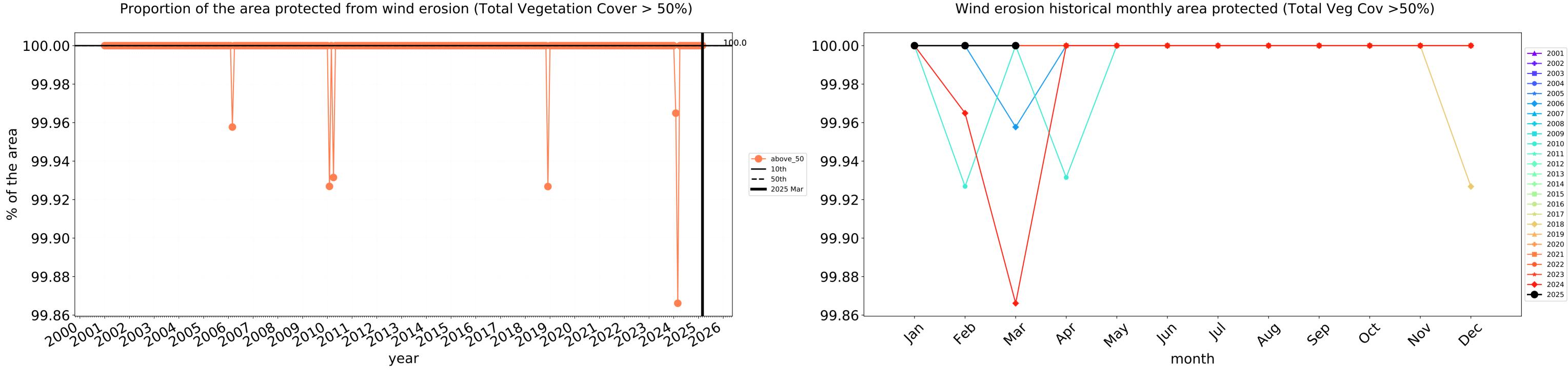




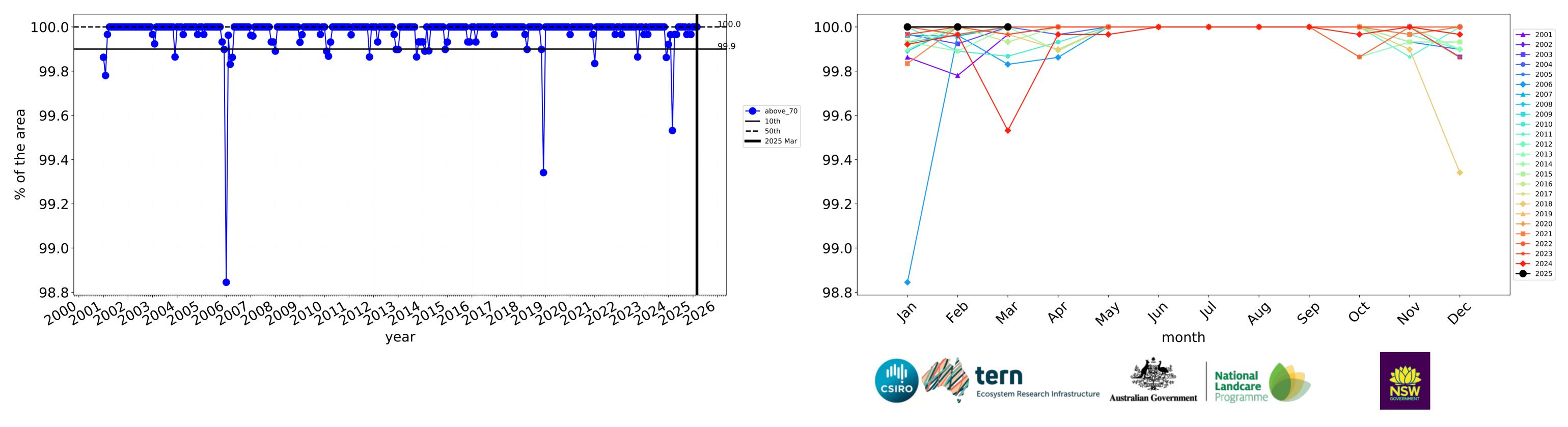




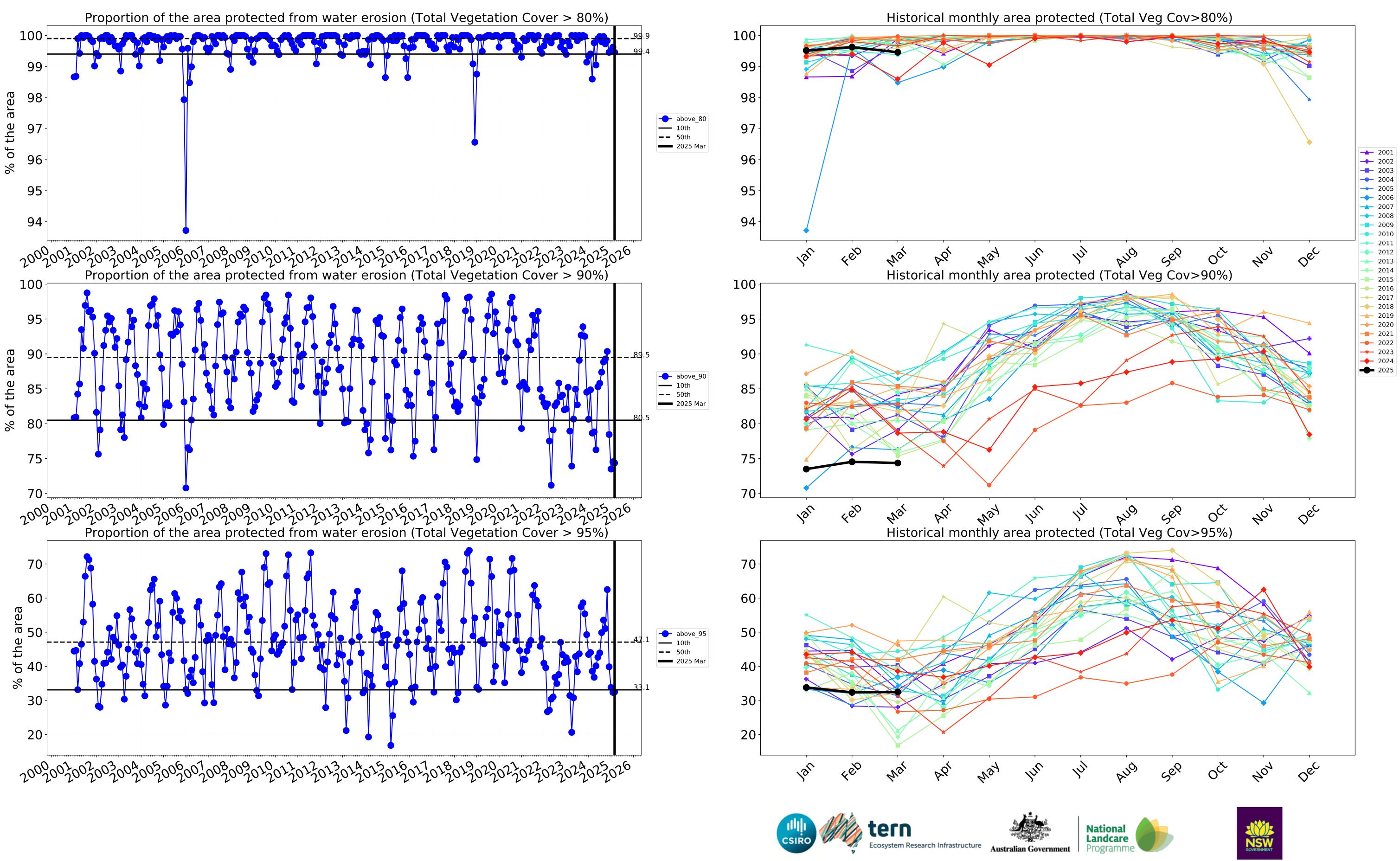
## Production native forests and plantation forests timeseries



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



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





# Mackay Whitsunday (898,225 ha and no data 34,835 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	898,225	99.9% 897,050	99.6% 894,750	98.4% 883,425	94.1% 844,950	55.8% 501,150	23.8% 214,100
Conservation and natural environments	268,075	99.8% 267,525	99.5% 266,675	98.1% 263,025	95.5% 255,925	69.2% 185,600	34.2% 91,800
Conservation and natural environments non forest	6,825	98.9% 6,750	98.2% 6,700	91.6% 6,250	82.1% 5,600	49.1% 3,350	28.6% 1,950
Conservation and natural environments Woodland forest	74,025	99.8% 73,900	99.5% 73,650	98.5% 72,925	95.1% 70,400	65.3% 48,375	33.2% 24,600
Conservation and natural environments Forest (non woodland)	187,225	99.8% 186,875	99.5% 186,325	98.2% 183,850	96.1% 179,925	71.5% 133,875	34.9% 65,250
Agriculture	467,975	100.0% 467,875	100.0% 467,750	99.6% 466,200	95.5% 446,900	48.4% 226,325	17.4% 81,475
Grazing	298,075	100.0% 297,975	99.9% 297,850	99.5% 296,500	97.2% 289,875	60.3% 179,700	23.1% 68,975
Grazing non forest	188,900	100.0% 188,825	99.9% 188,725	99.3% 187,625	96.4% 182,050	55.5% 104,800	21.3% 40,150
Grazing Woodland forest	80,625	100.0% 80,600	100.0% 80,600	99.8% 80,425	98.7% 79,550	66.9% 53,925	26.1% 21,075
Grazing - Forest (non woodland)	28,550	100.0% 28,550	99.9% 28,525	99.6% 28,450	99.0% 28,275	73.5% 20,975	27.1% 7,750
Irrigation	169,850	100.0% 169,850	100.0% 169,850	99.9% 169,650	92.4% 156,975	27.4% 46,575	7.4% 12,500
Production native forests and plantation forests	73,725	100.0% 73,725	100.0% 73,725	100.0% 73,725	99.5% 73,325	74.4% 54,825	32.5% 23,950

