

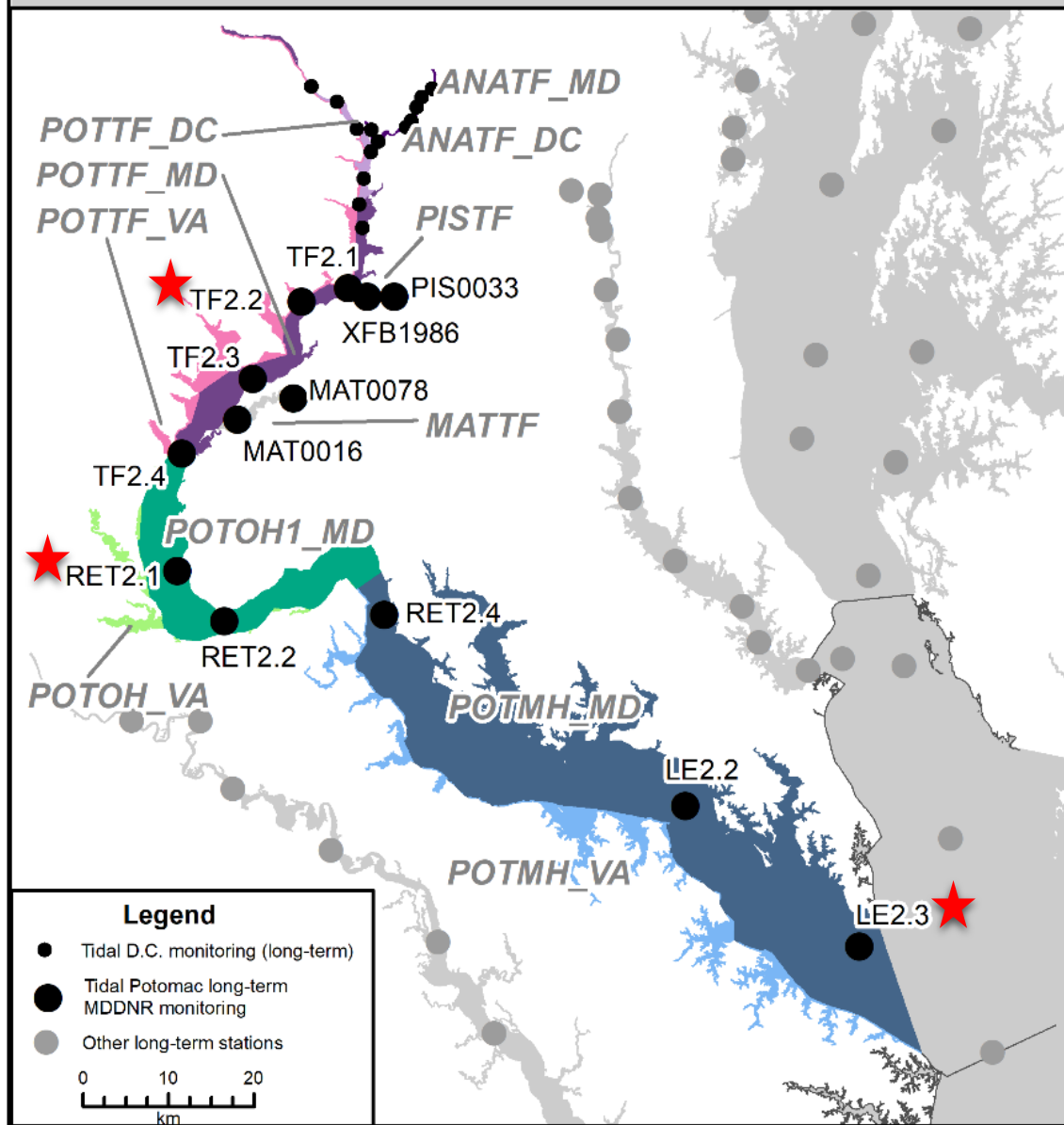
DRAFT

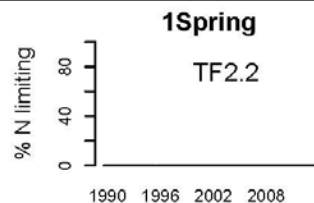
Nutrient Limitation at Potomac Tidal Stations

Tidal Trends Team Meeting

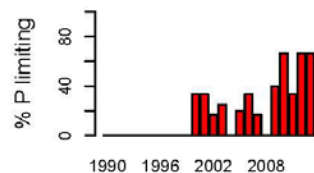
Qian Zhang, Cuiyin Wu, Emily Trentacoste
9/26/2018

Potomac River Segments and Stations

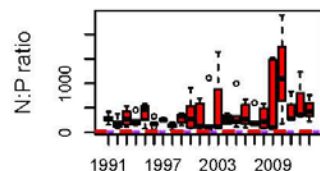




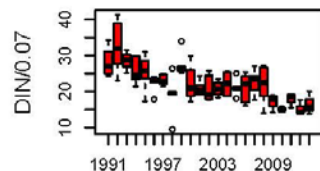
Barchart: % of cases with $N < 0.07$ mg/L



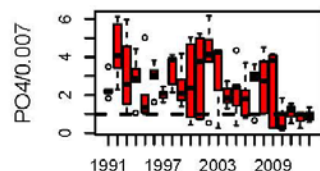
Barchart: % of cases with $P < 0.007$ mg/L



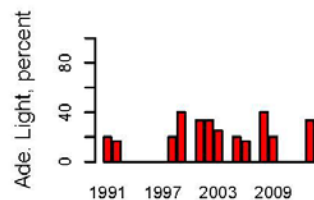
Boxplot: values of N:P molar ratio



Boxplot: values of $DIN/0.07$



Boxplot: values of $PO4/0.007$



Barchart: % of cases with light in the “best/better” category

Seasons (months)

Spring (3-4-5)

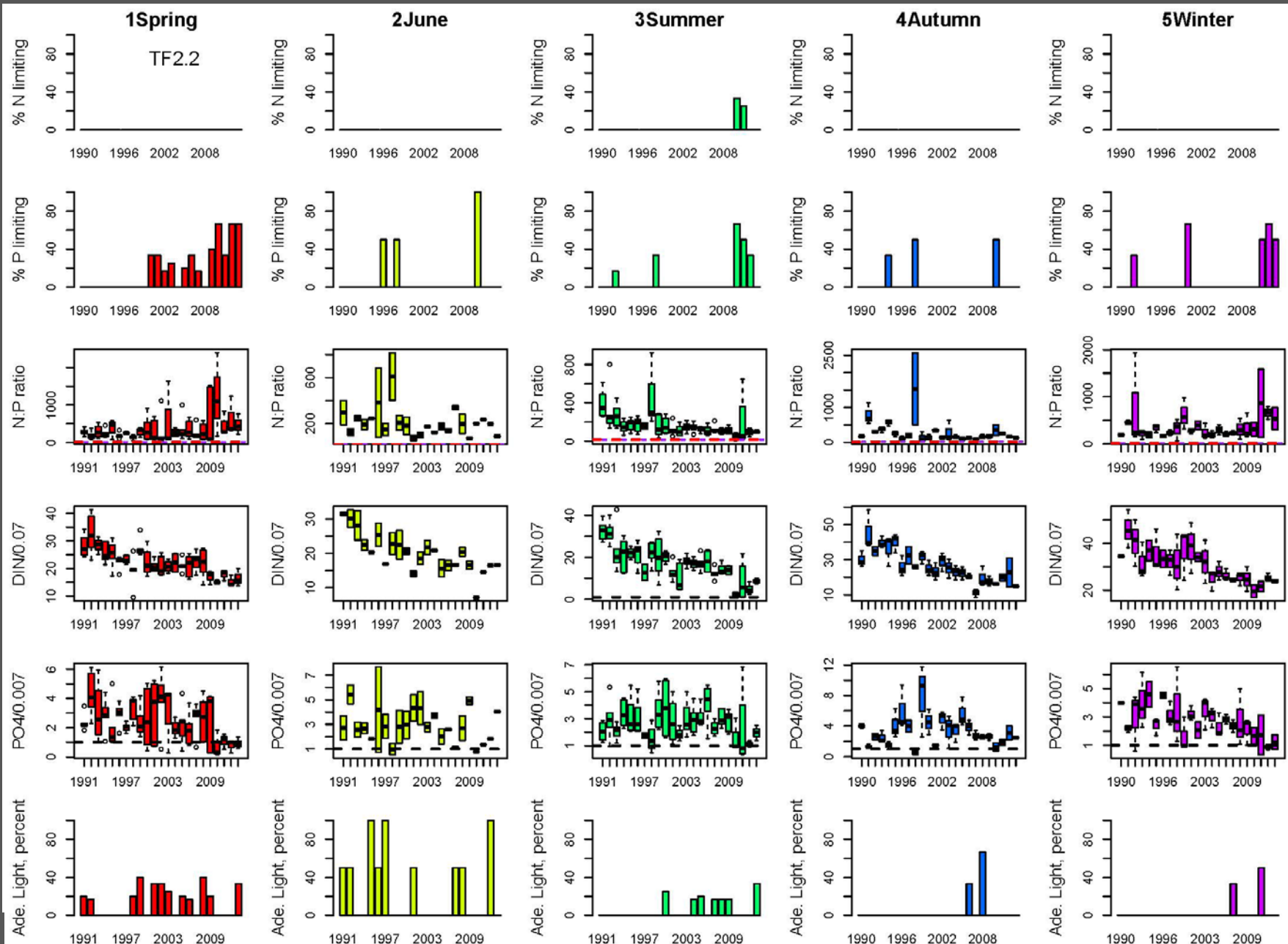
June (6)

Summer (7-8-9)

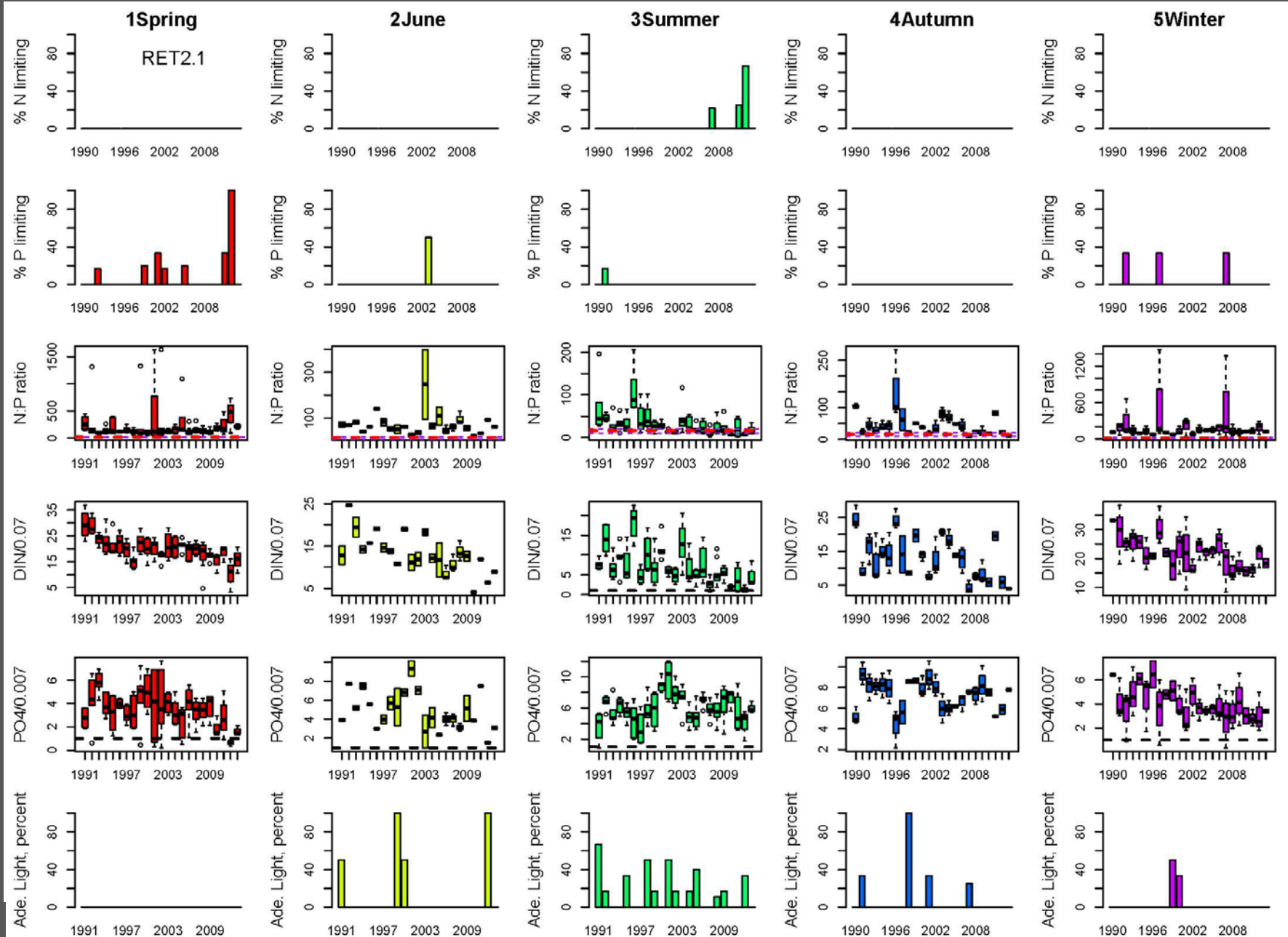
Autumn (10-11)

Winter (12-1-2)

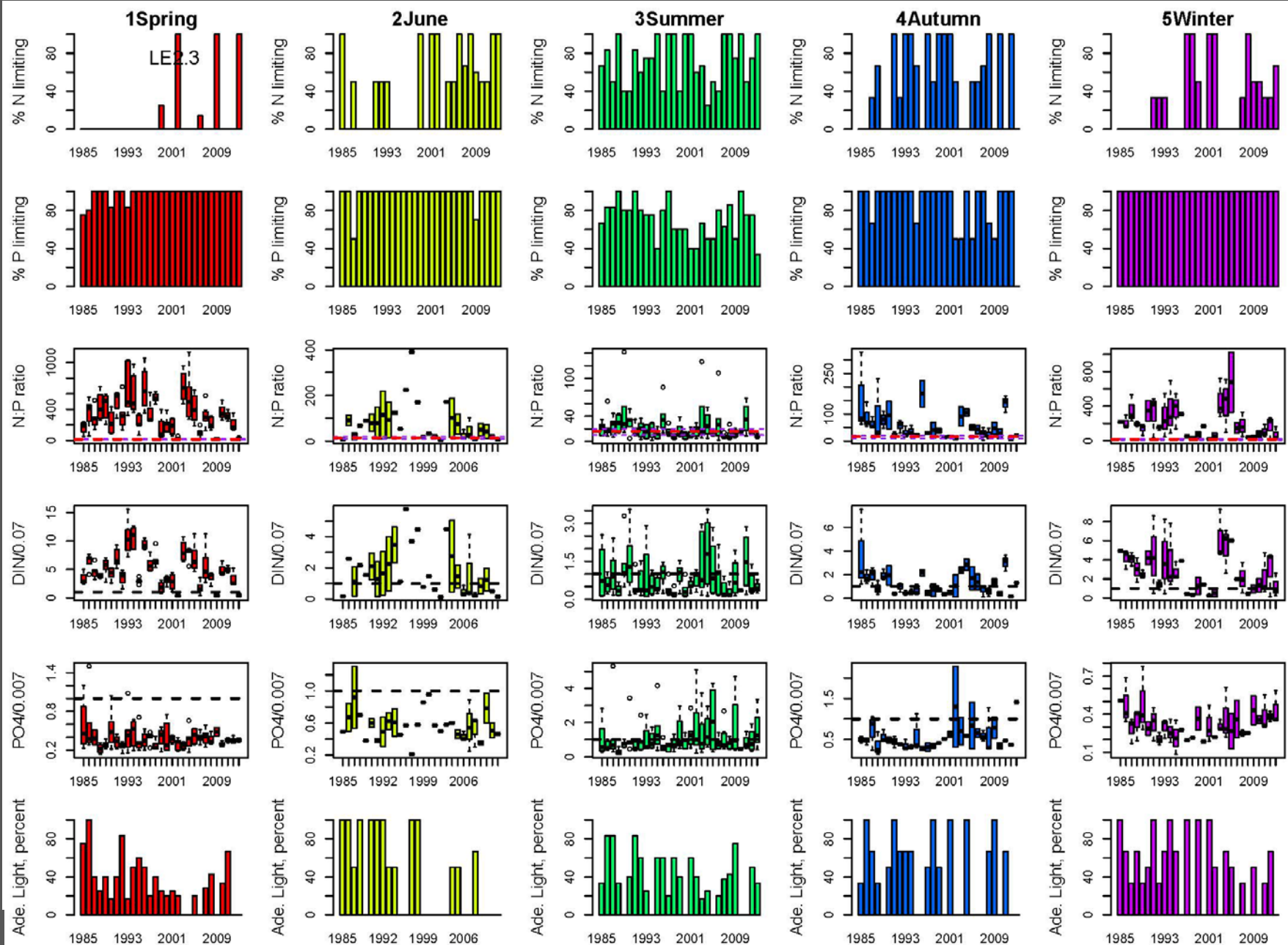
TF2.2



RET2.1



LE2.3

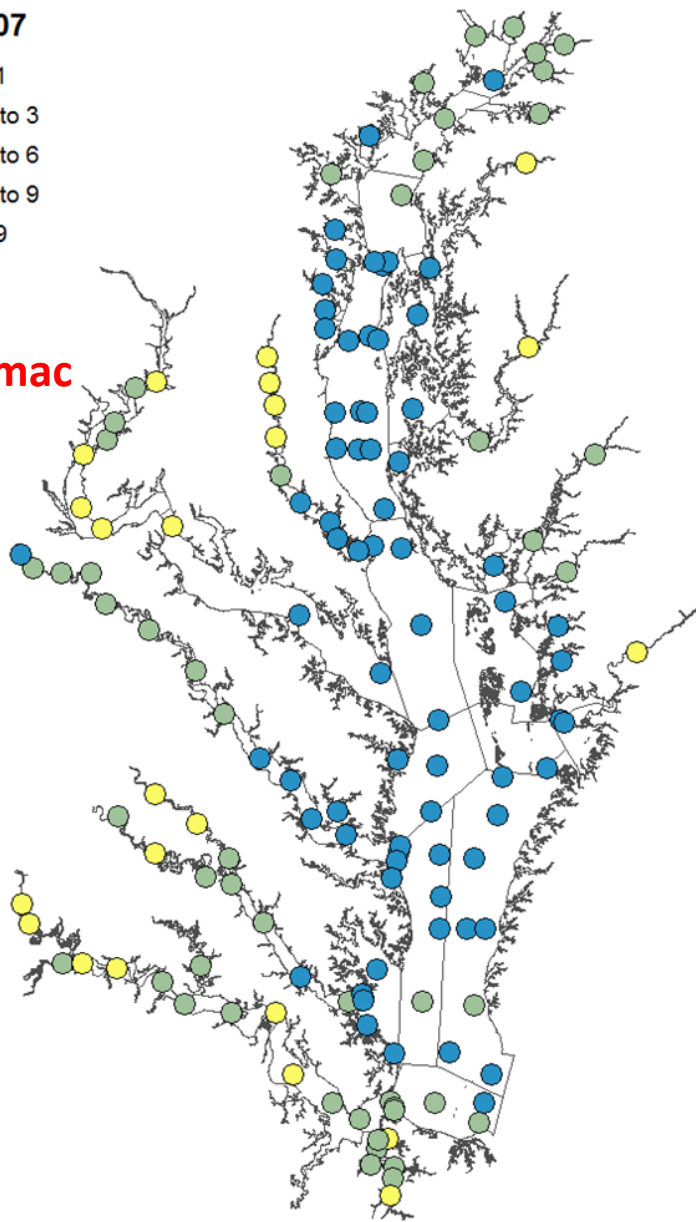


1990-1994 Spring

DIP/0.007

- <1
- 1 to 3
- 3 to 6
- 6 to 9
- >9

Potomac

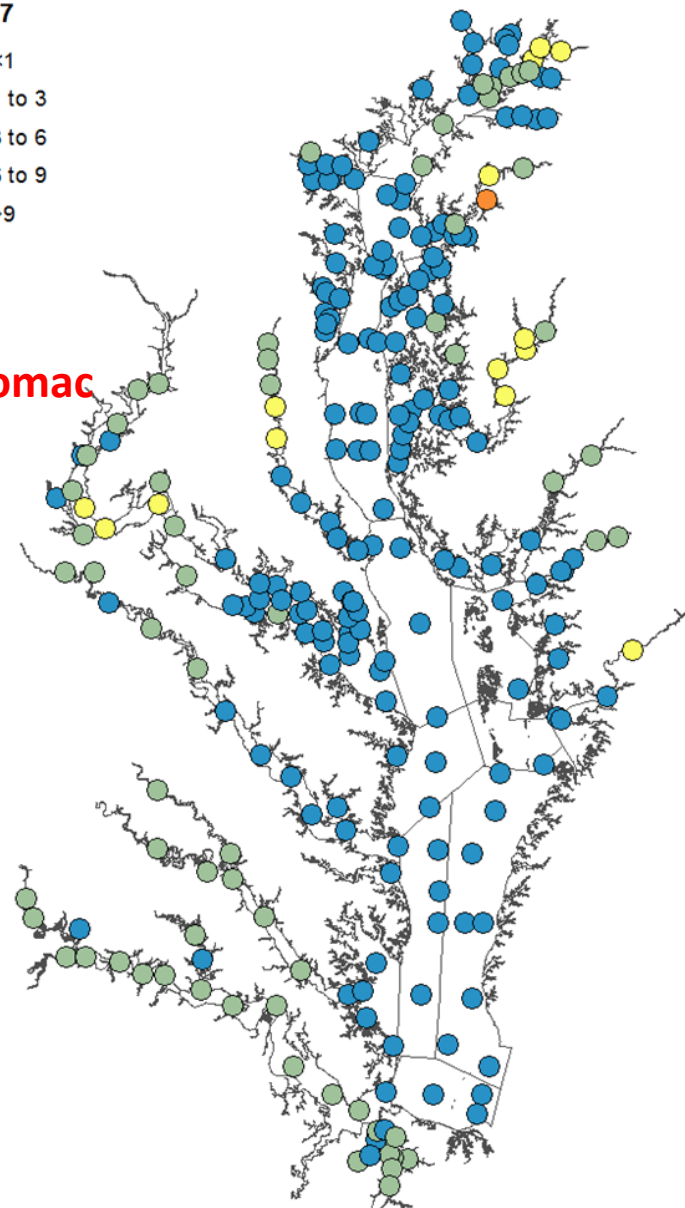


2006-2010 Spring

DIP/0.007

- <1
- 1 to 3
- 3 to 6
- 6 to 9
- >9

Potomac

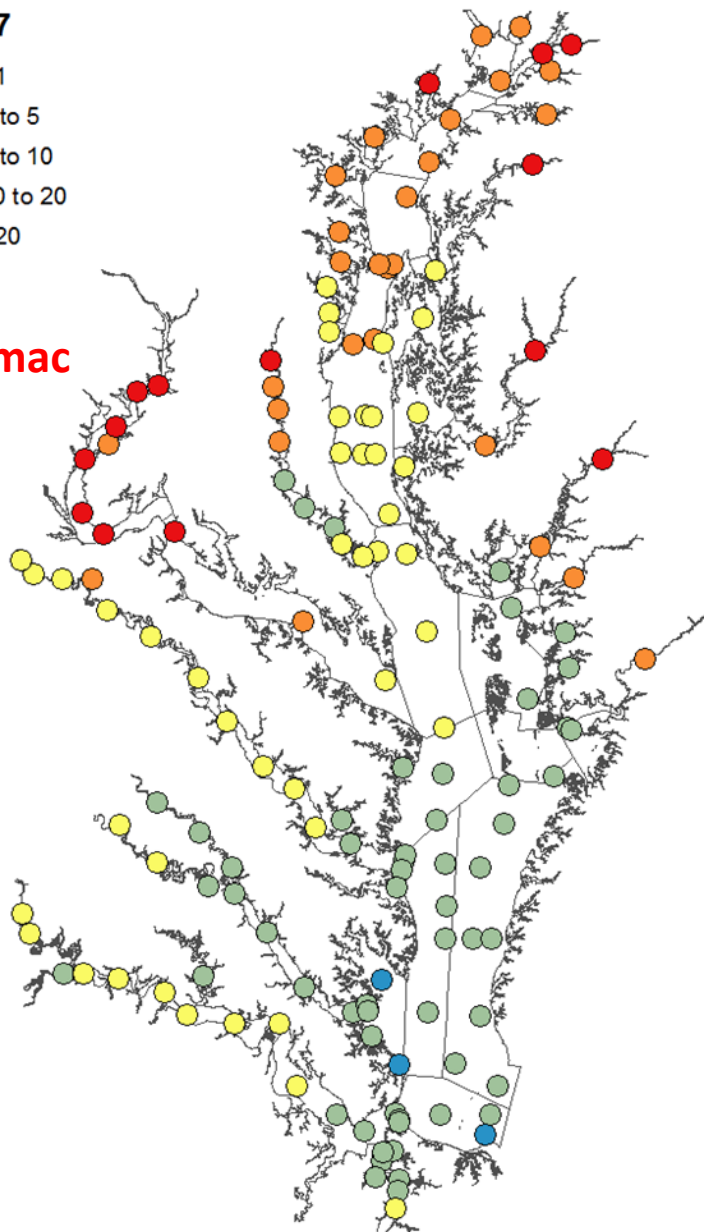


1990-1994 Spring

DIN/0.07

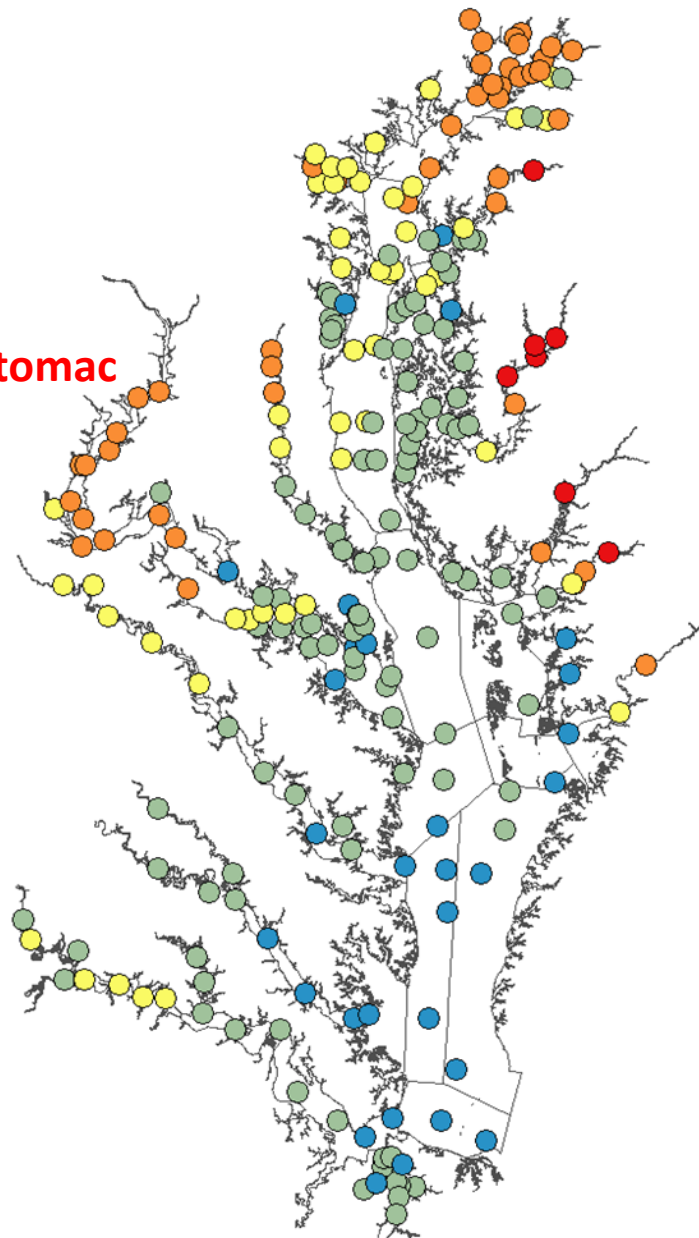


Potomac



2006-2010 Spring

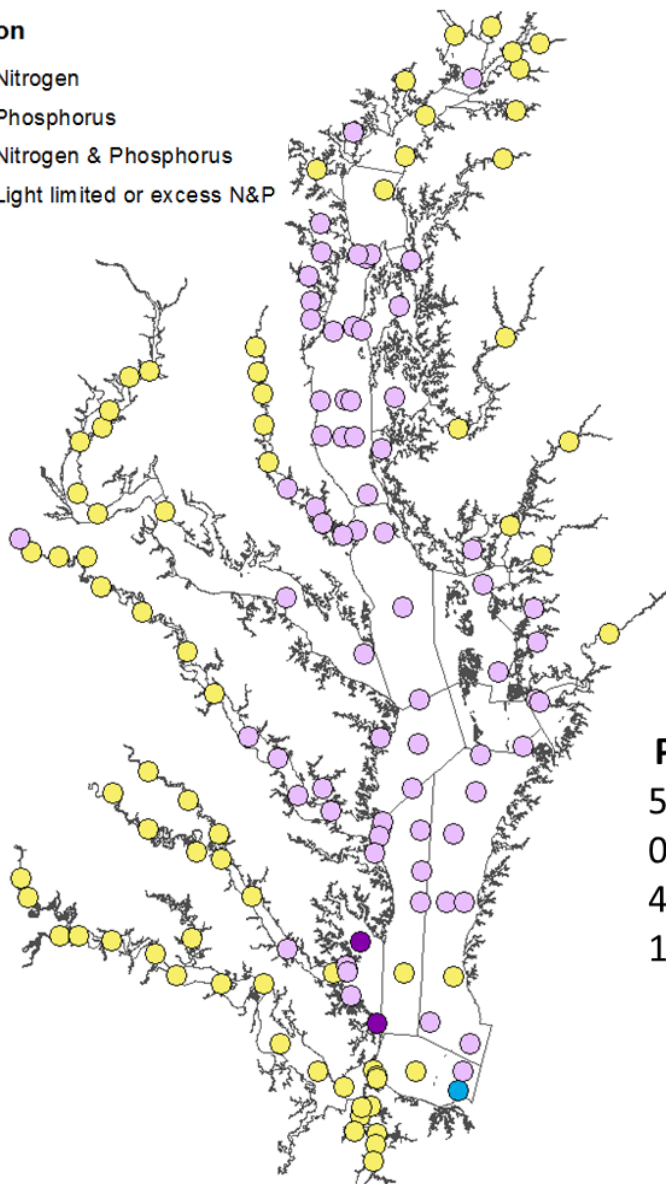
Potomac



1990-1994 Spring

Limitation

- Nitrogen
- Phosphorus
- Nitrogen & Phosphorus
- Light limited or excess N&P



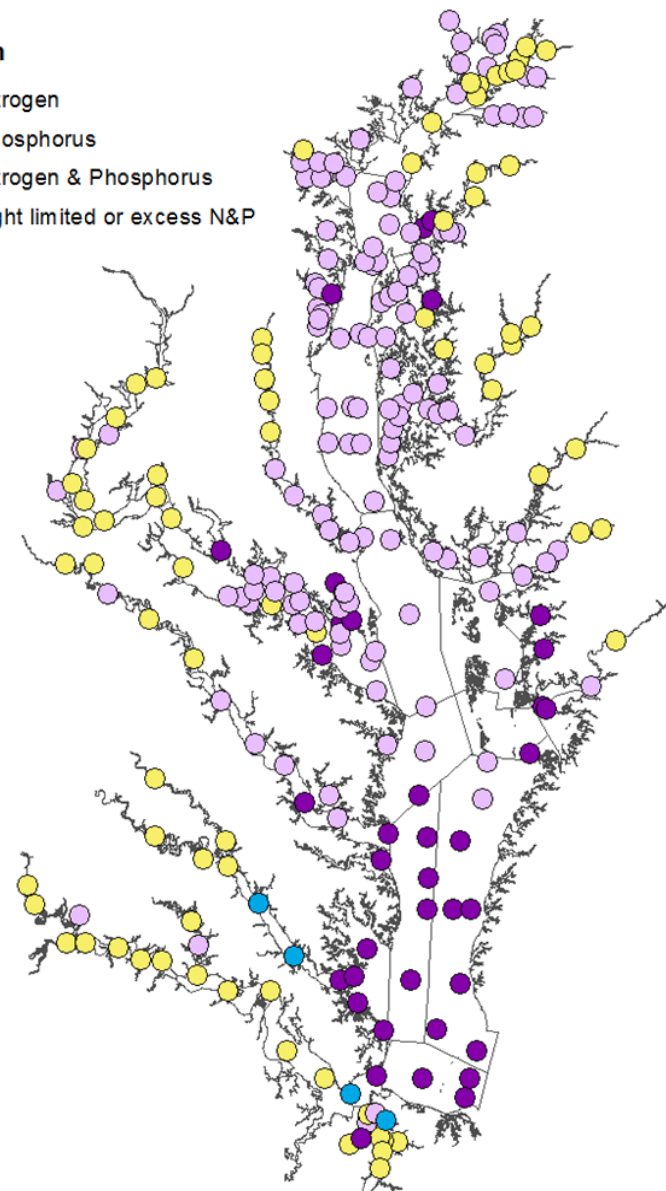
Percent of samples

50%	Light	31%
0.7%	N	1.5%
48%	P	52%
1.4%	N&P	16%

2006-2010 Spring

Limitation

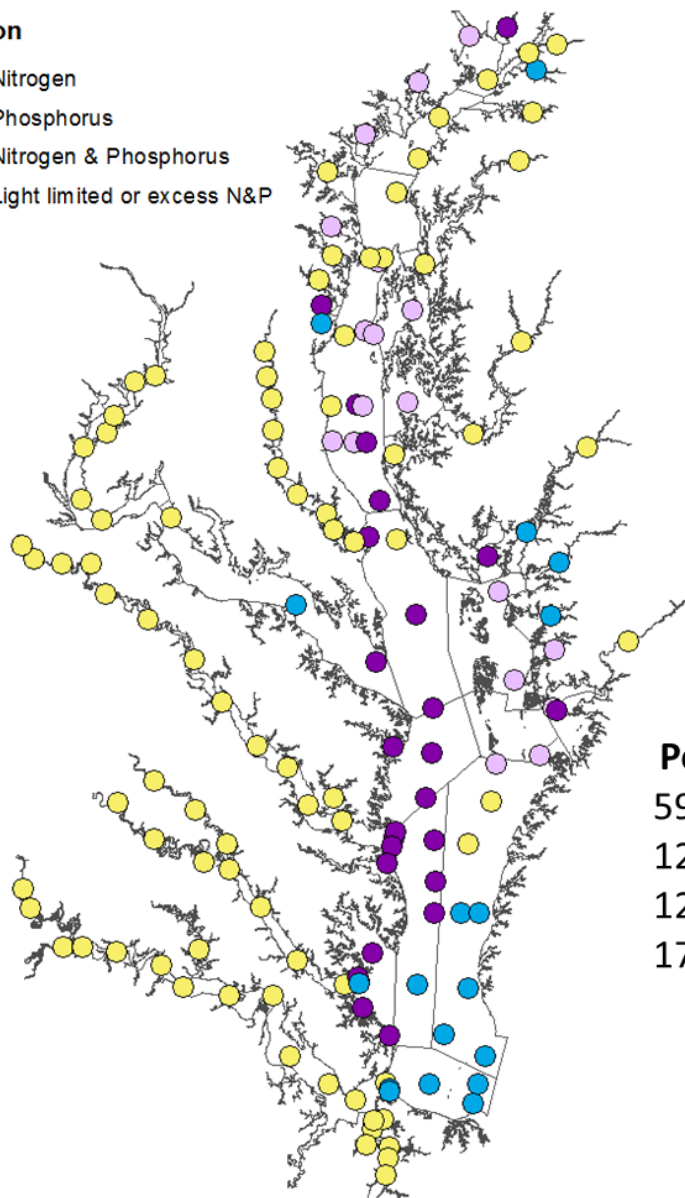
- Nitrogen
- Phosphorus
- Nitrogen & Phosphorus
- Light limited or excess N&P



1990-1994 Summer

Limitation

- Nitrogen
- Phosphorus
- Nitrogen & Phosphorus
- Light limited or excess N&P



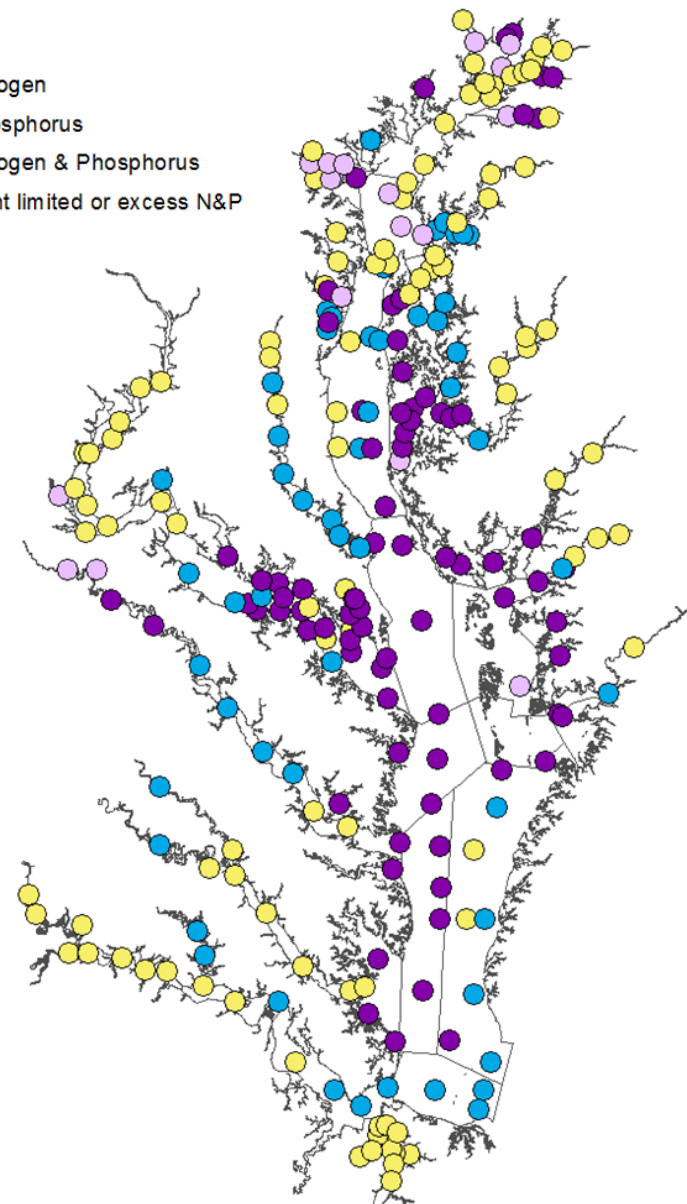
Percent of samples

59%	Light	41%
12%	N	20%
12%	P	7%
17%	N&P	31%

2006-2010 Summer

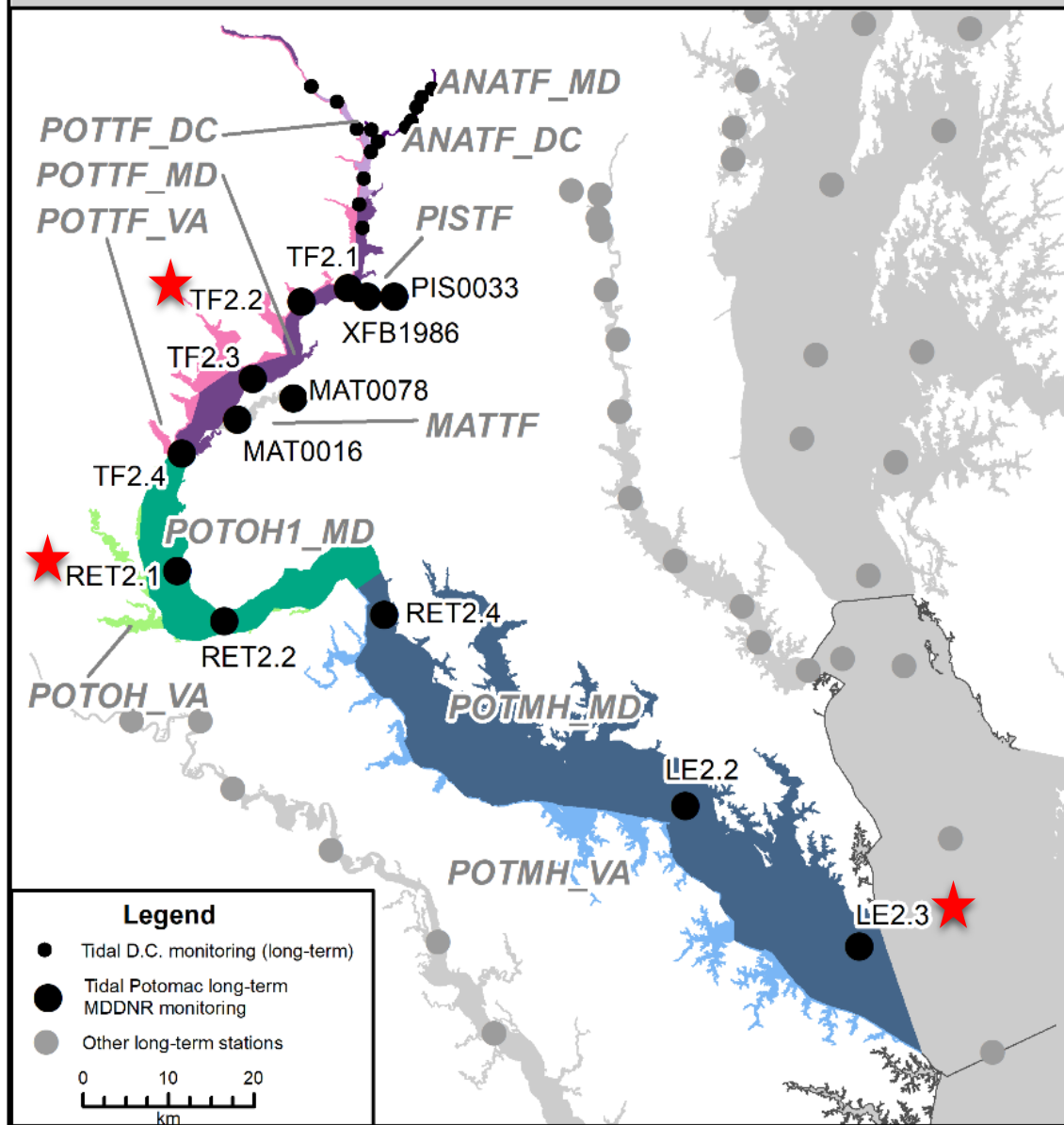
Limitation

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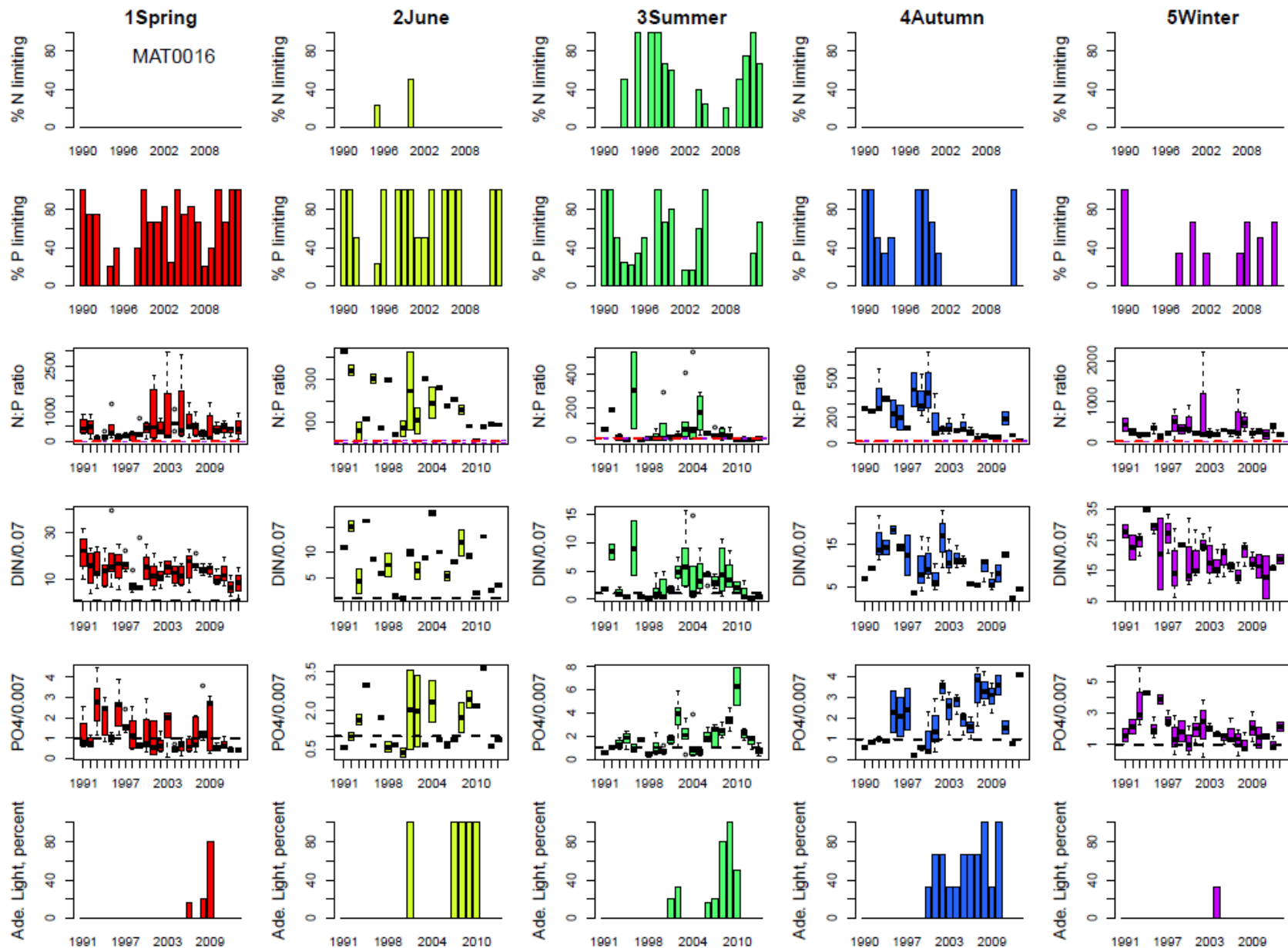


Additional Stations

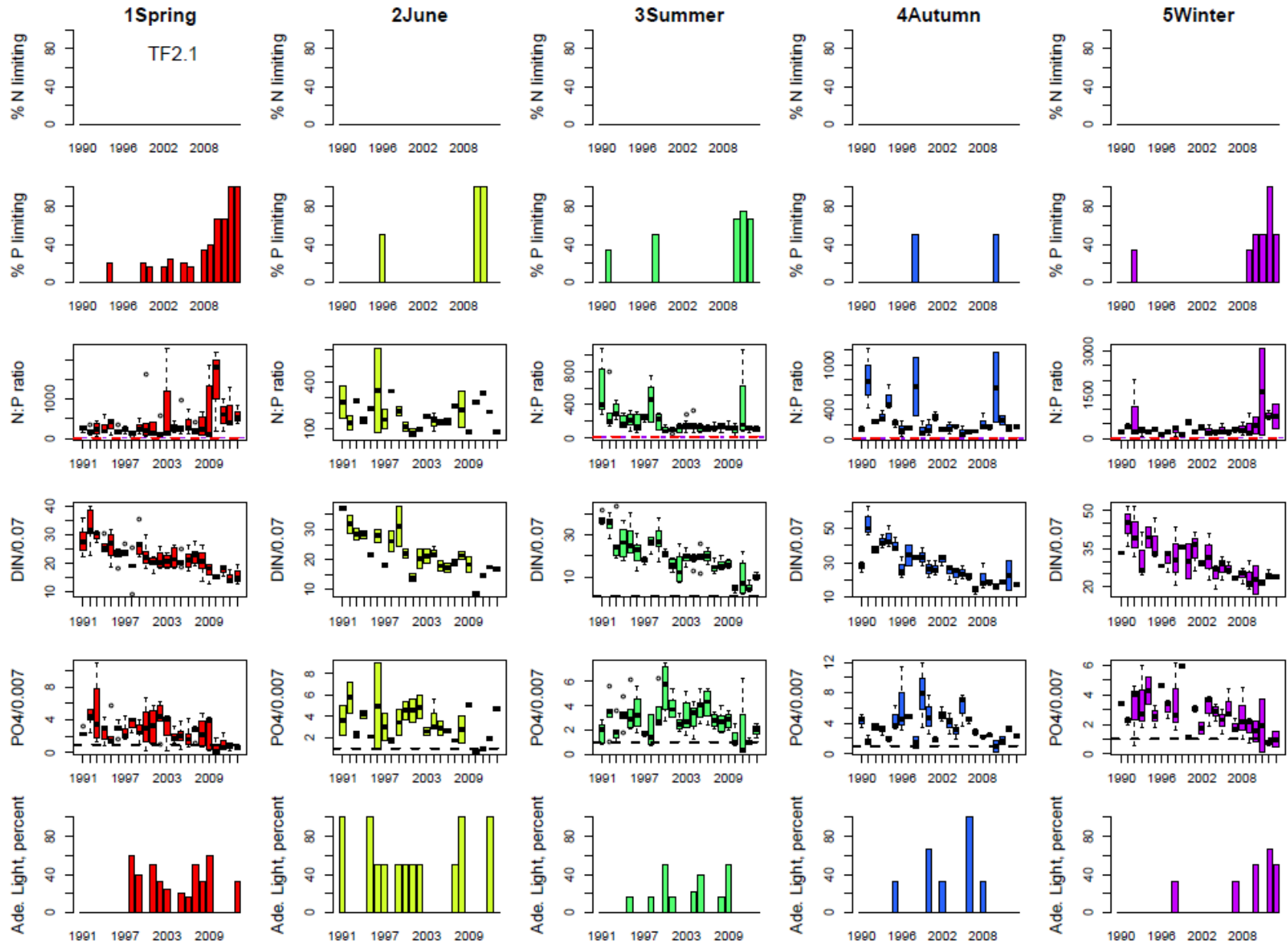
Potomac River Segments and Stations



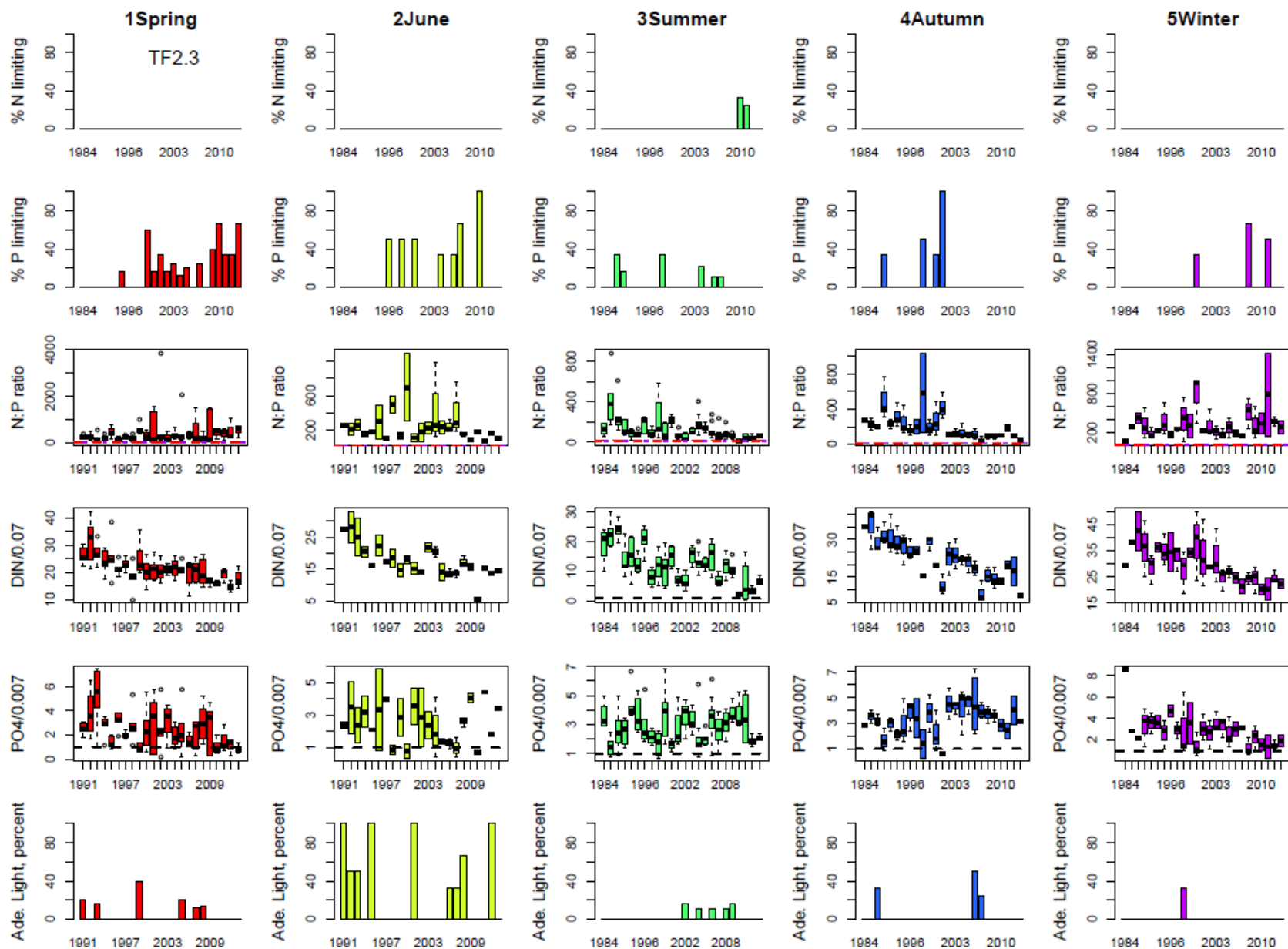
MAT0016



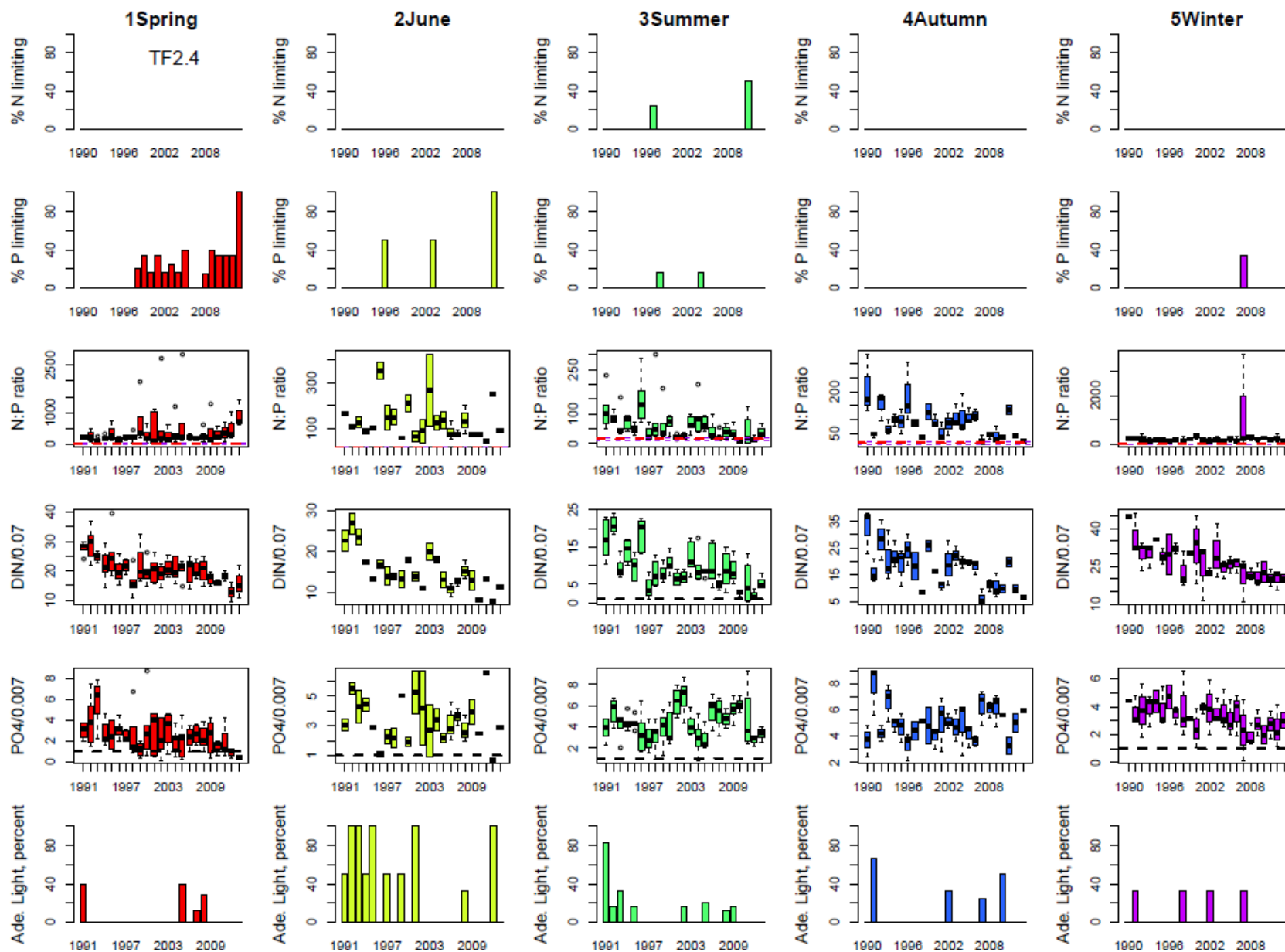
TF2.1



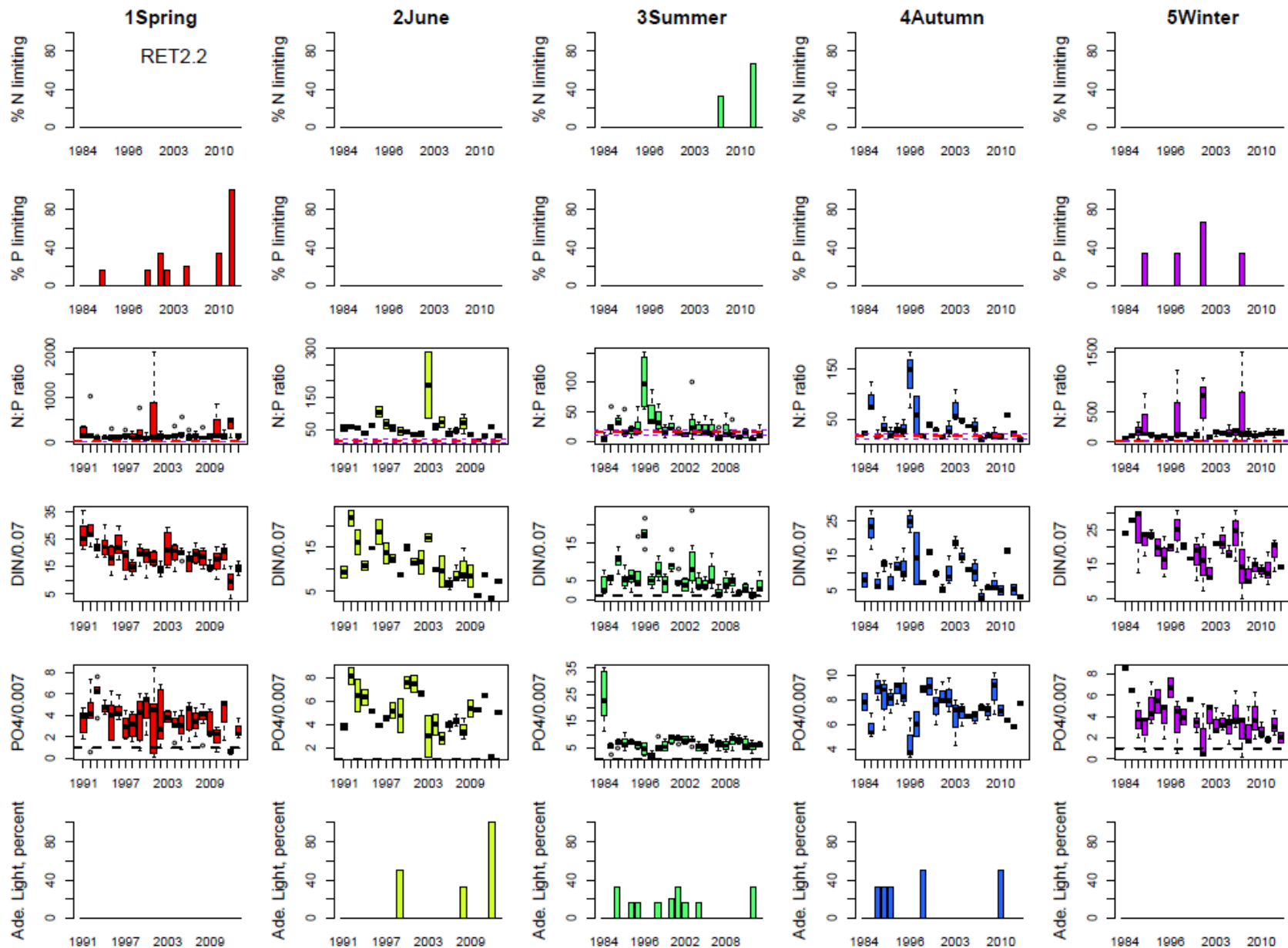
TF2.3



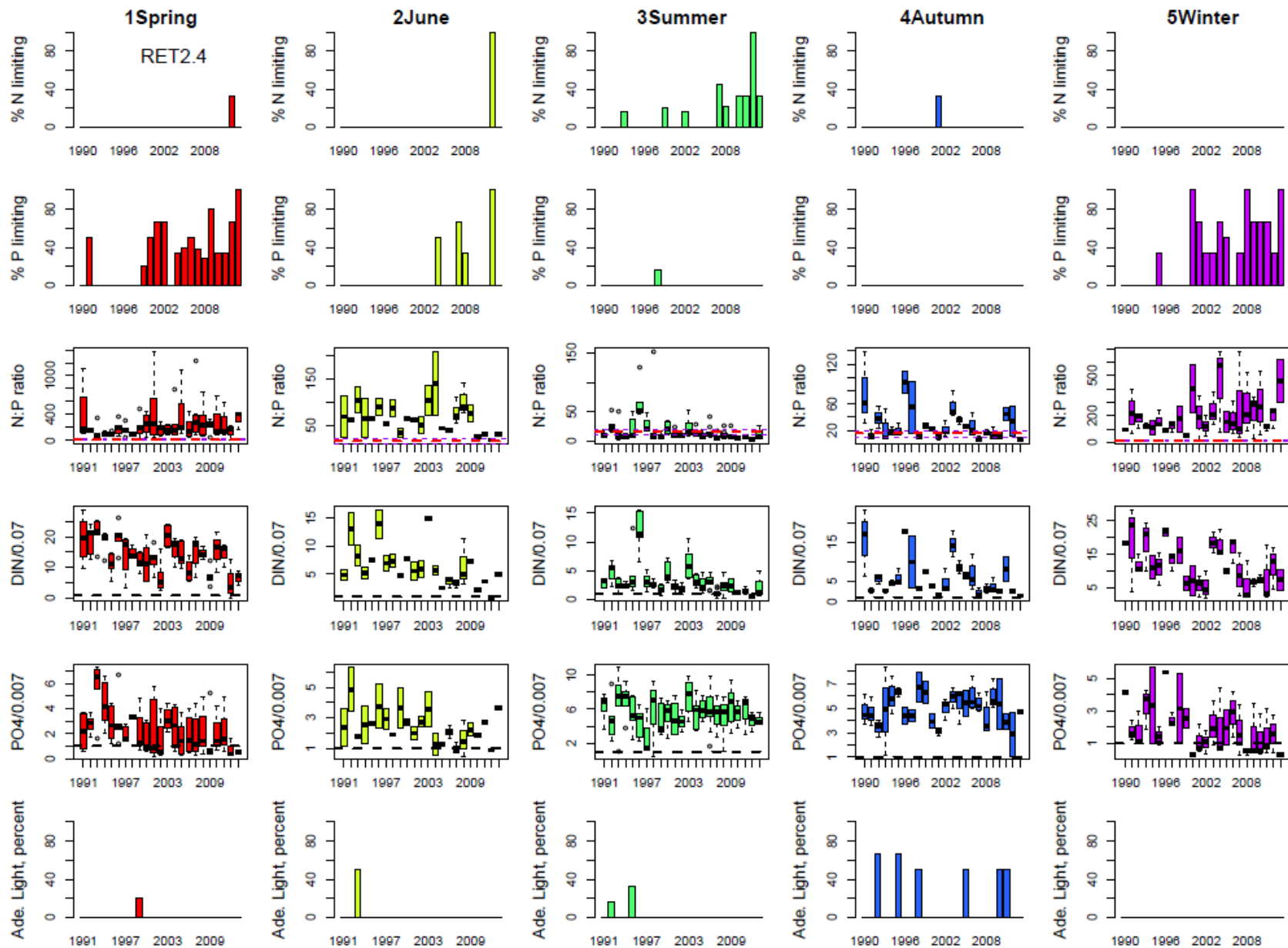
TF2.4



RET2.2



RET2.4



LE2.2

