

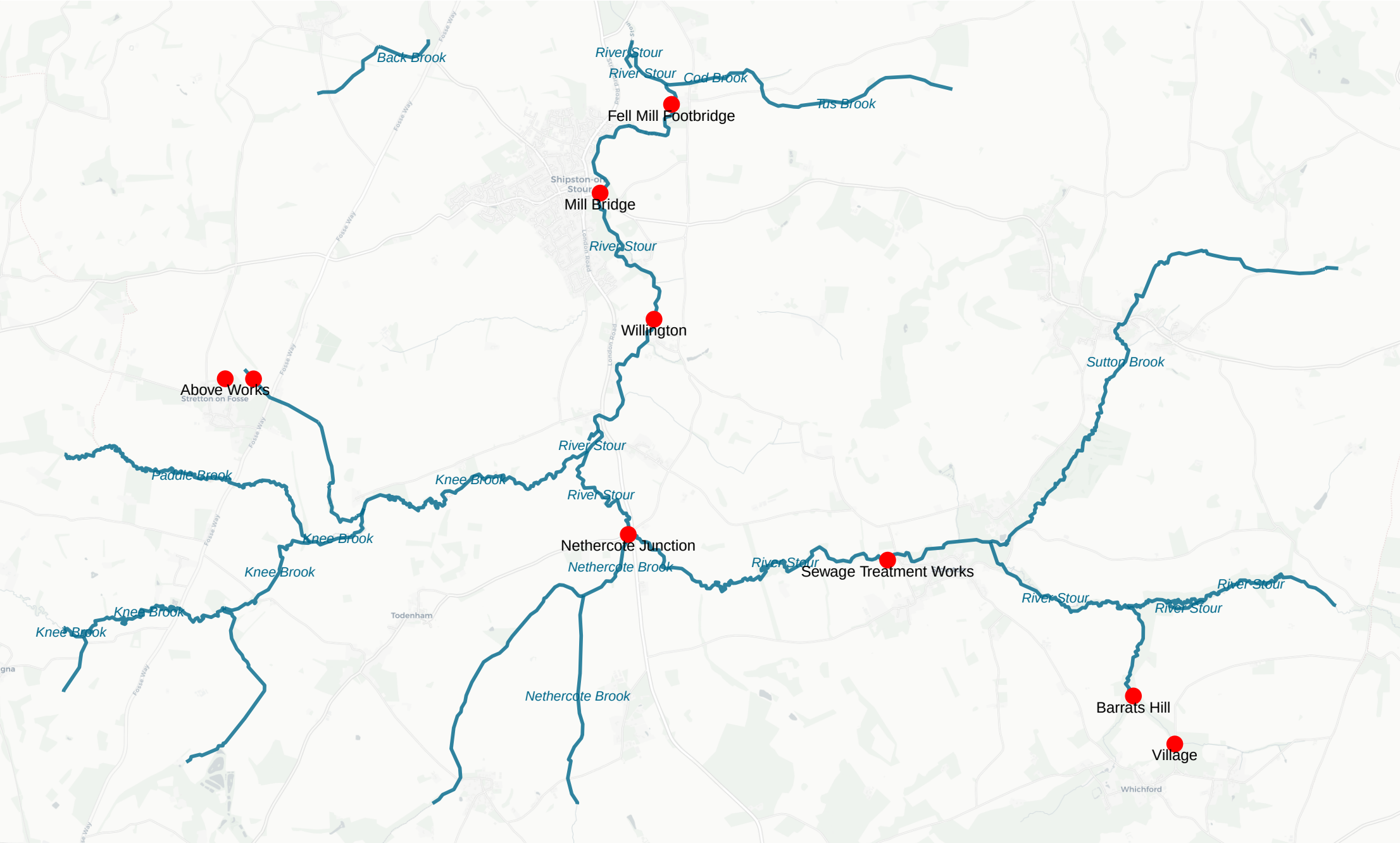
SafeAvon Nutrient Testing Report: Upper Stour

SafeAvon Sites By Waterway

Stour River

- . Ascott – Village
- . Burmington – Nethercote Junction
- . Cherington – Sewage Treatment Works
- . Shipston-on-Stour – Fell Mill Footbridge
- . Shipston-on-Stour – Mill Bridge
- . Stretton-on-Fosse – Above Works
- . Stretton-on-Fosse – Below Works
- . Whichford – Barrats Hill
- . Willington – Willington

SafeAvon Locations in Upper Stour

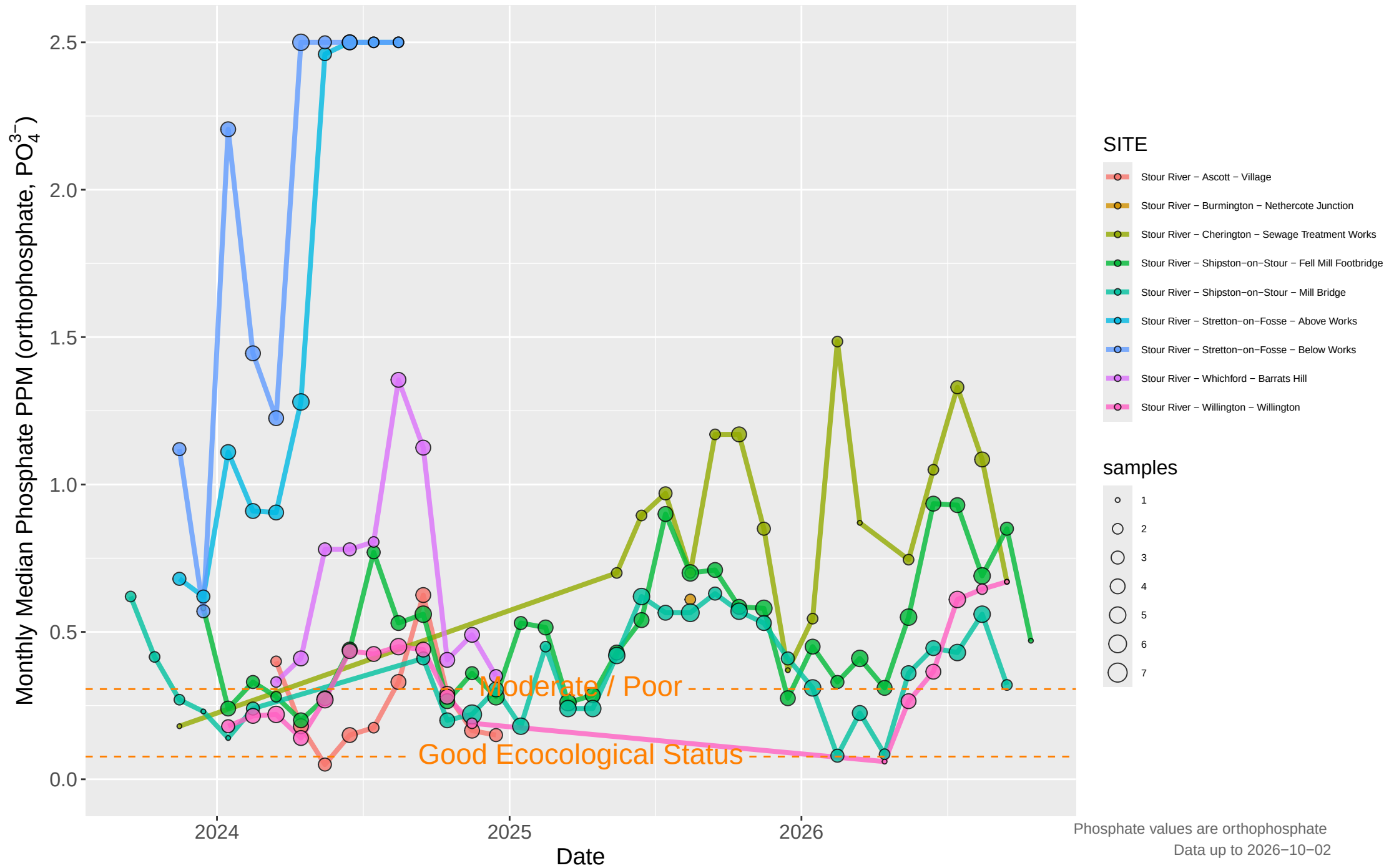


Summary for sites in Upper Stour

SITE	Start	Most Recent	Samples	Distinct Volunteers	Median Phosphates PPM	Median Nitrates PPM
Stour River – Shipston-on-Stour – Fell Mill Footbridge	2023-12-09	2026-10-27	134	4	0.485	5.0
Stour River – Cherington – Sewage Treatment Works	2023-11-09	2026-09-26	37	3	0.880	5.0
Stour River – Shipston-on-Stour – Mill Bridge	2023-09-11	2026-09-25	117	8	0.360	5.0
Stour River – Willington – Willington	2024-01-11	2026-09-02	61	3	0.320	2.0
Stour River – Burmington – Nethercote Junction	2025-08-26	2025-08-26	2	1	0.610	3.5
Stour River – Stretton-on-Fosse – Above Works	2023-11-14	2025-08-20	35	2	1.280	2.0
Stour River – Stretton-on-Fosse – Below Works	2023-11-14	2025-08-20	35	2	2.500	2.0
Stour River – Ascott – Village	2024-03-23	2024-12-14	34	1	0.225	1.0
Stour River – Whichford – Barrats Hill	2024-03-23	2024-12-14	33	1	0.540	2.0

SafeAvon Phosphates – By Month

Upper Stour



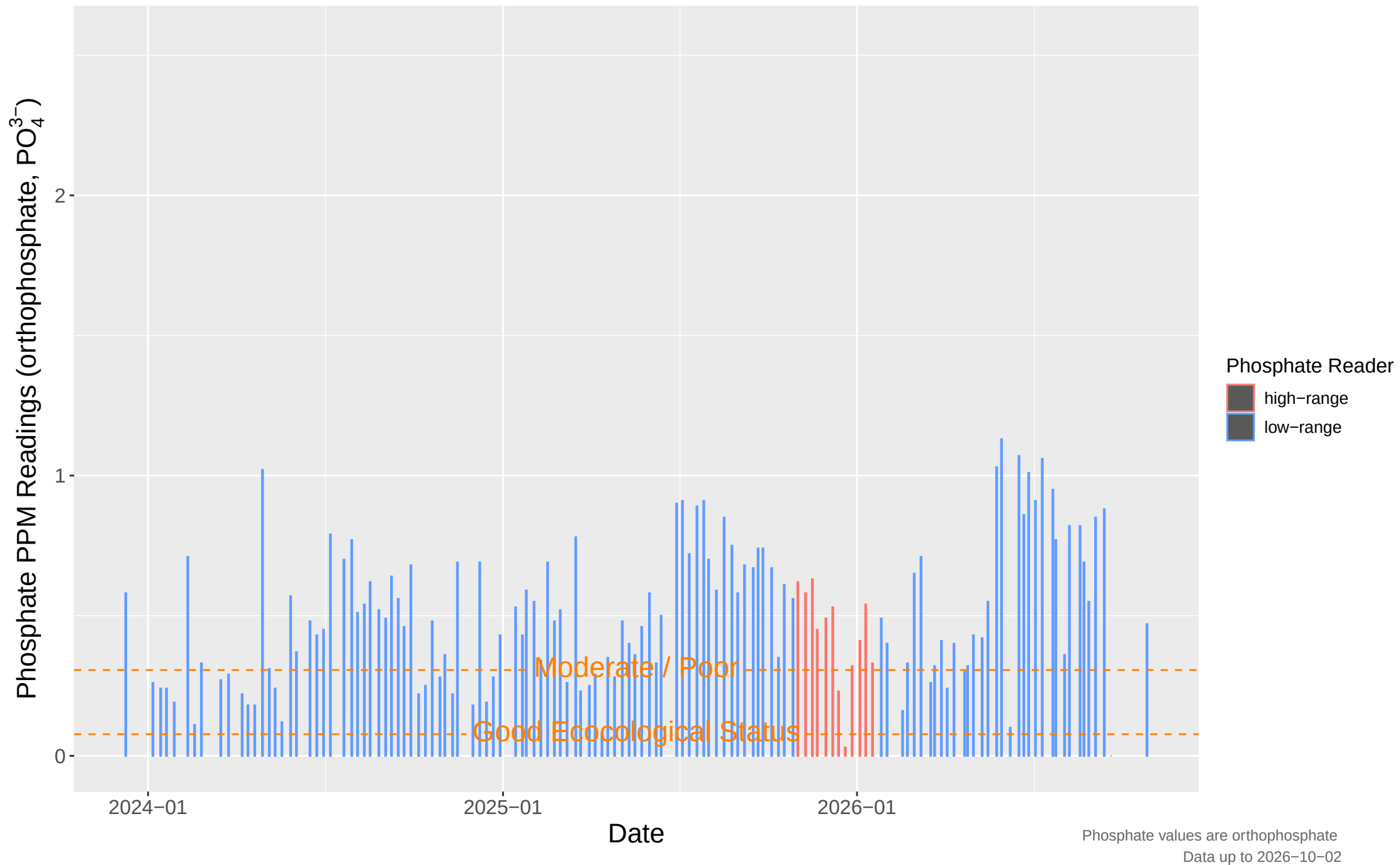
Site: Stour River – Shipston-on-Stour – Fell Mill Footbridge

Start Date: 2023-12-09 | Most Recent: 2026-10-27 | Total Samples: 134 | Distinct Volunteers: 4

Season	Count		Phos Min	Phos Med	Phos Max		Nitr Min	Nitr Med	Nitr Max		EC Min	EC Med	EC Max		Temp Min	Temp Med	Temp Max
Winter 23-24	8		0.11	0.25	0.71		2	7.5	10		272	556	622		4.6	8.3	12.0
Spring 24	10		0.12	0.26	1.02		2	7.5	10		465	600	675		10.1	12.9	16.0
Summer 24	11		0.37	0.52	0.79		5	5.0	10		63	636	678		13.8	17.2	19.2
Autumn 24	12		0.22	0.47	0.69		1	5.0	10		500	629	655		9.3	12.5	18.5
Winter 24-25	12		0.18	0.45	0.69		0	1.0	5		470	575	617		6.2	8.2	11.2
Spring 25	13		0.08	0.35	0.78		0	1.0	2		590	643	694		6.6	12.7	15.6
Summer 25	13		0.33	0.72	0.91		5	10.0	10		585	668	720		12.8	17.8	21.2
Autumn 25	13		0.35	0.62	0.74		5	5.0	20		601	685	713		7.5	13.0	17.0
Winter 25-26	11		0.03	0.33	0.54		5	10.0	20		425	494	691		4.0	8.1	11.2
Spring 26	14		0.24	0.42	1.13		5	5.0	10		53	57	586		8.8	12.7	21.5
Summer 26	13		0.10	0.82	1.07		5	5.0	10		57	66	71		15.3	18.7	22.0
Autumn 26	4		0.00	0.66	0.88		0	7.5	10		62	66	67		14.8	17.7	18.4

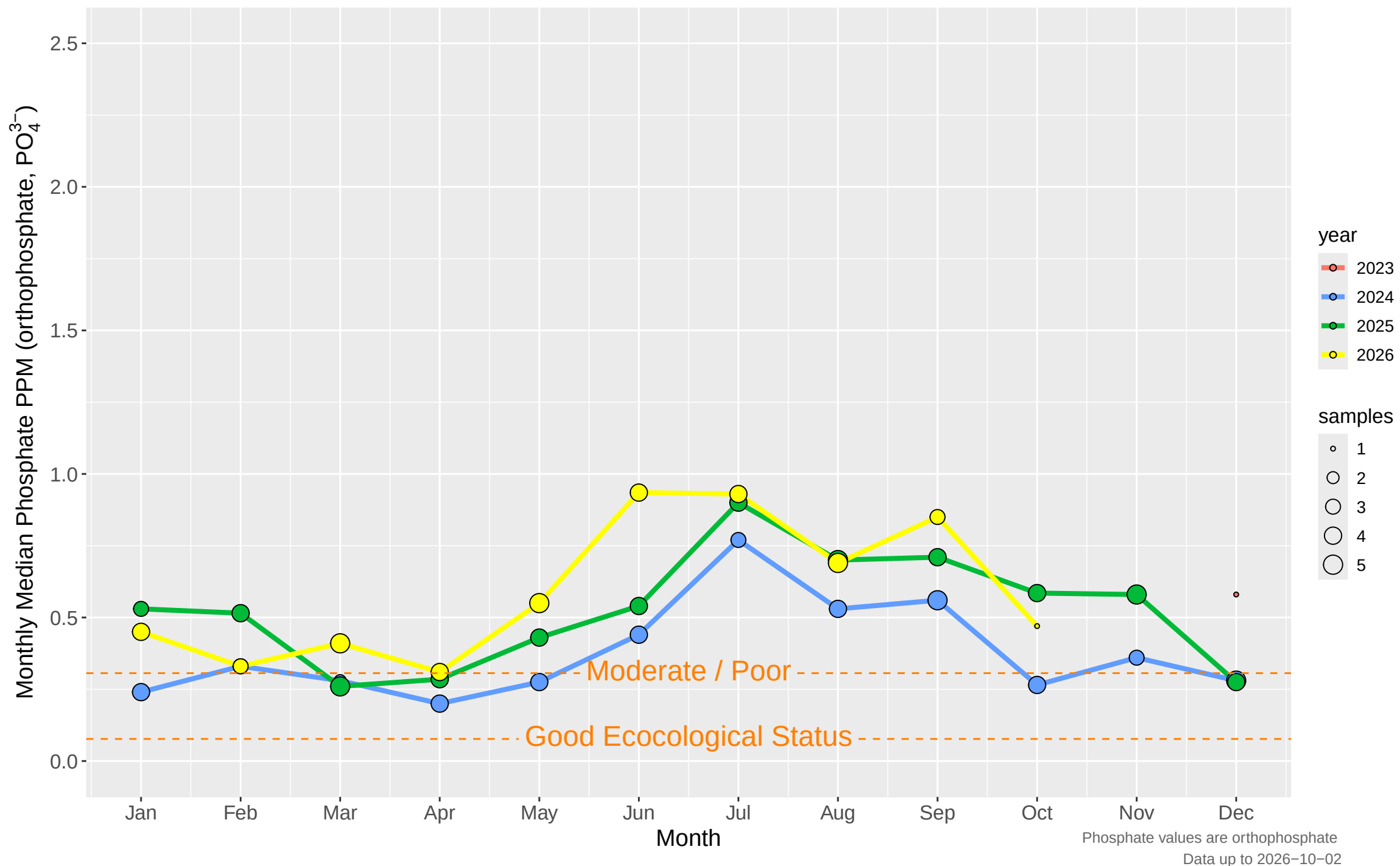
SafeAvon Phosphates – Individual Readings

Stour River – Shipston-on-Stour – Fell Mill Footbridge



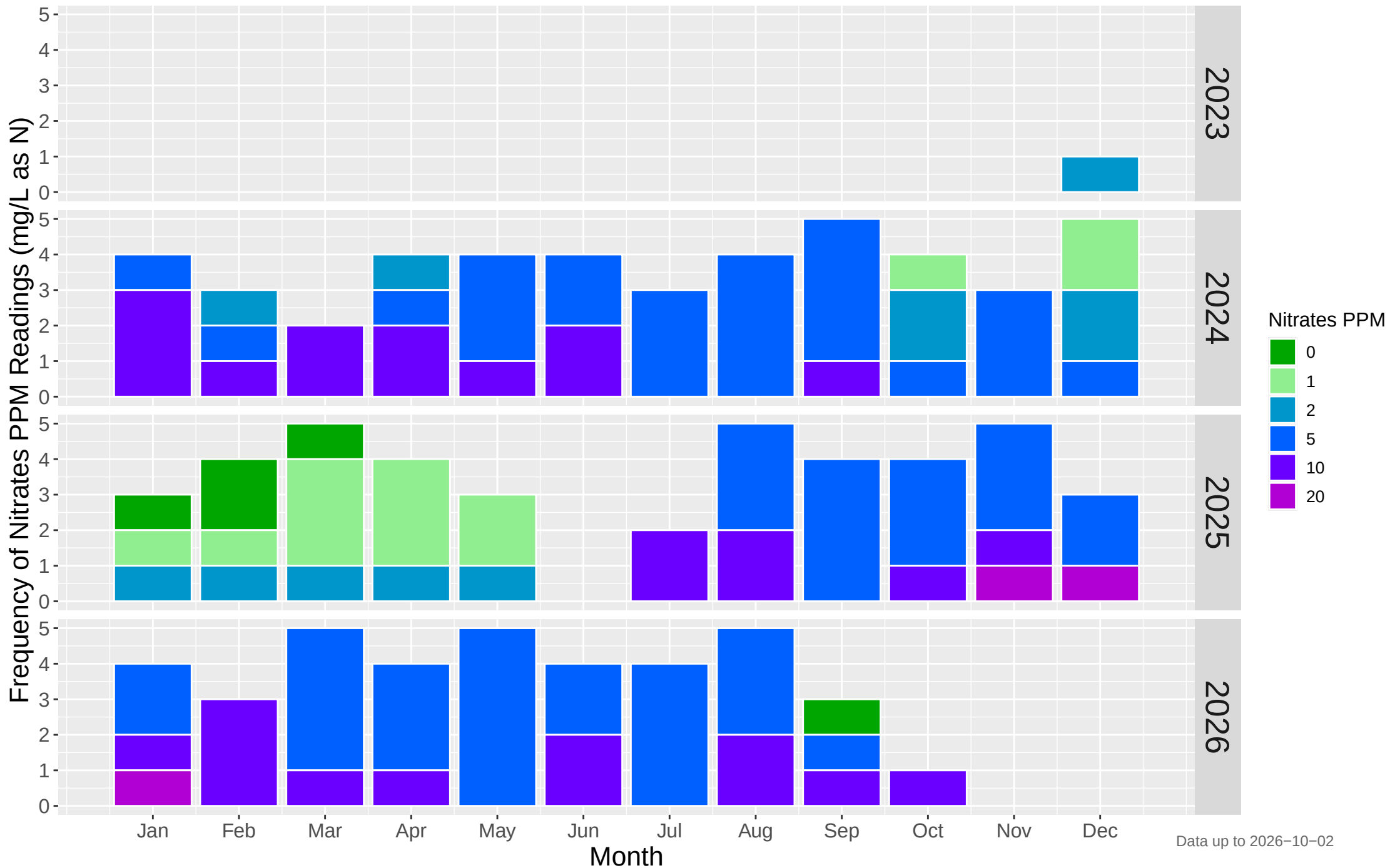
SafeAvon Phosphates – By Month

Stour River – Shipston-on-Stour – Fell Mill Footbridge



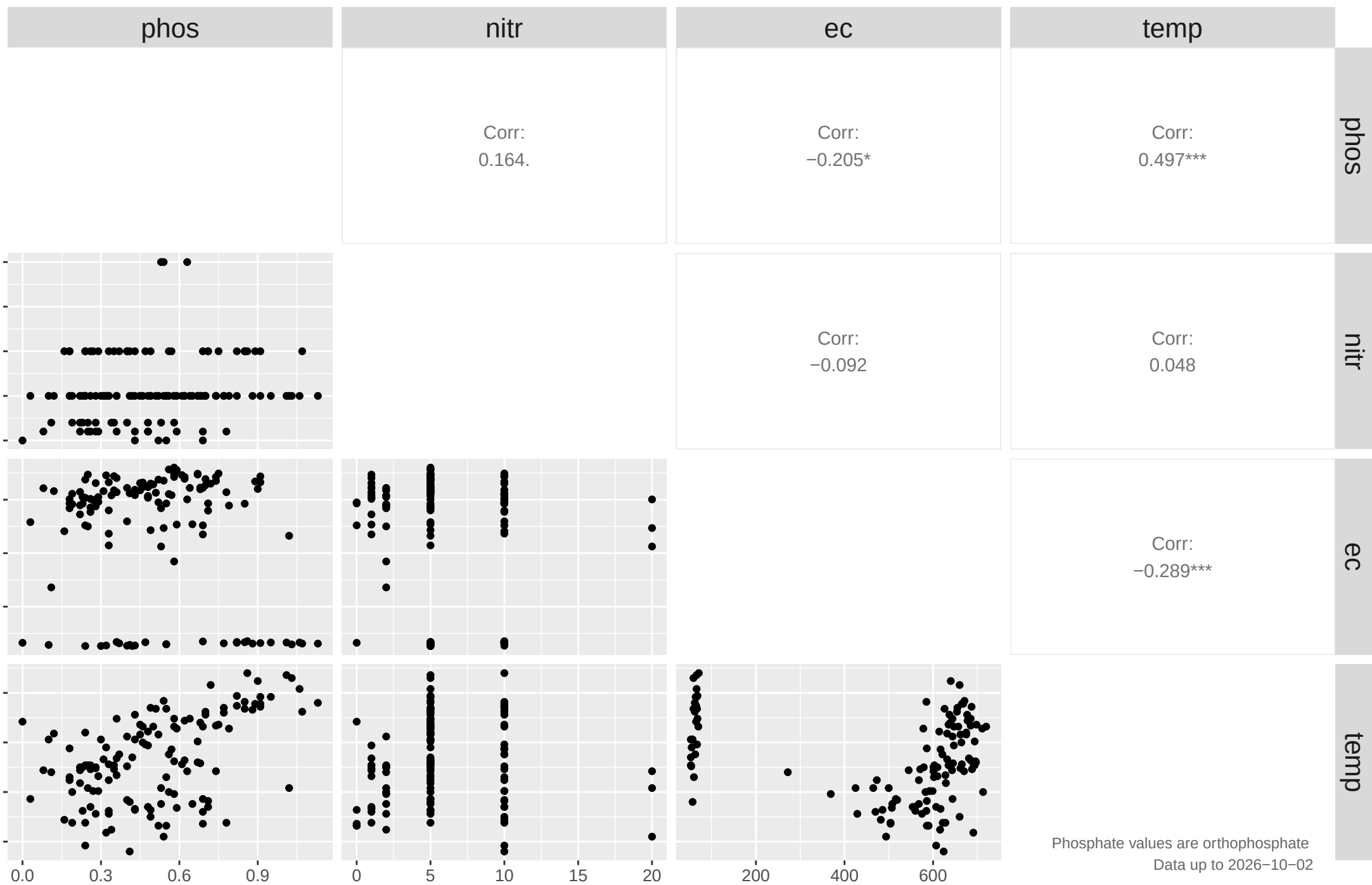
SafeAvon Nitrates By Month

Stour River – Shipston-on-Stour – Fell Mill Footbridge



Pairwise Testing Variables Relationships

Stour River – Shipston-on-Stour – Fell Mill Footbridge



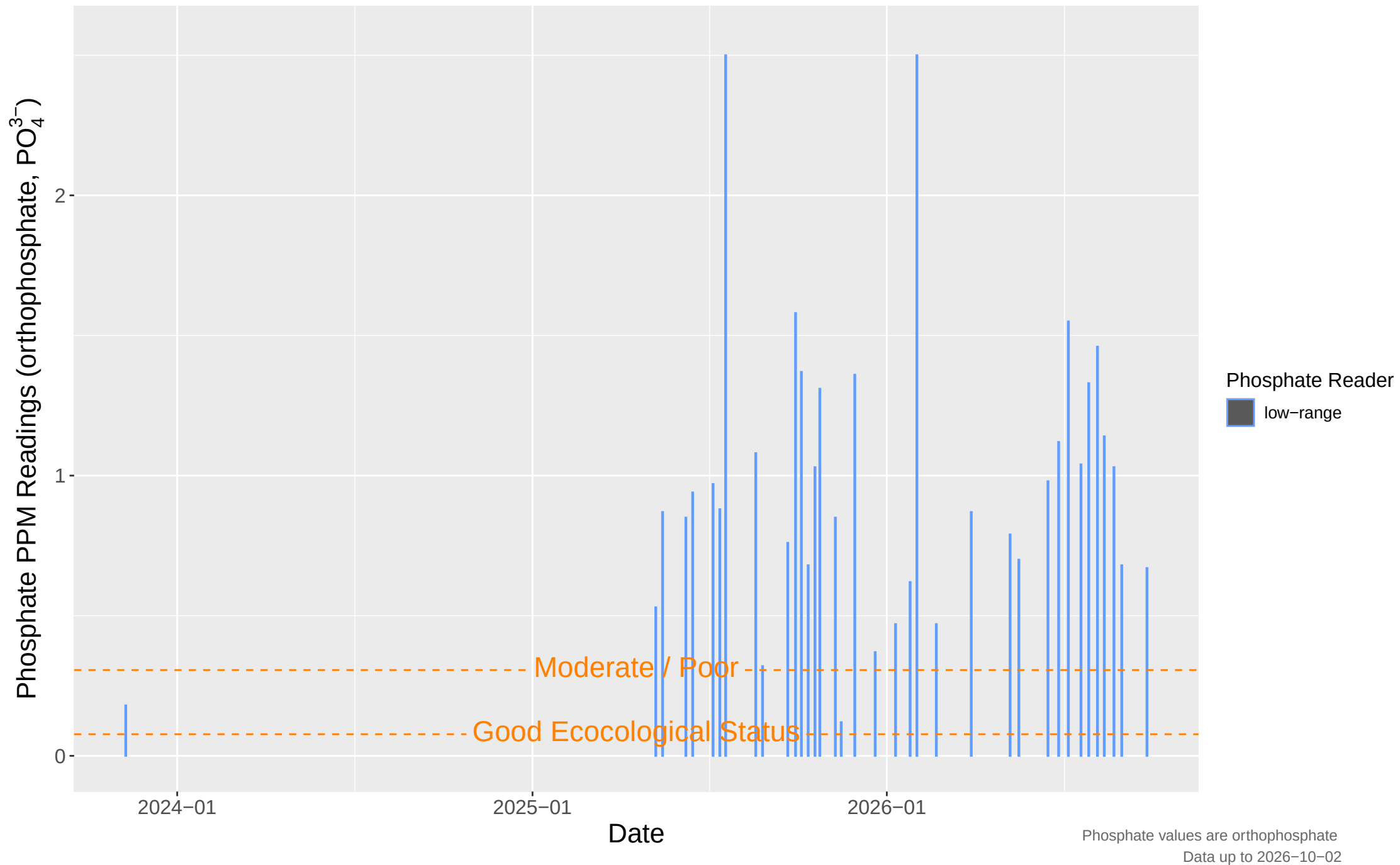
Site: Stour River – Cherington – Sewage Treatment Works

Start Date: 2023-11-09 | Most Recent: 2026-09-26 | Total Samples: 37 | Distinct Volunteers: 3

Season	Count		Phos Min	Phos Med	Phos Max		Nitr Min	Nitr Med	Nitr Max		EC Min	EC Med	EC Max		Temp Min	Temp Med	Temp Max
Autumn 23	1		0.18	0.18	0.18		NA	NA	NA		295	295	295		10.7	10.7	10.7
Spring 25	2		0.53	0.70	0.87		1	3	5		509	611	713		12.5	13.3	14.1
Summer 25	7		0.32	0.94	2.50		1	5	10		703	731	869		12.8	17.3	18.9
Autumn 25	9		0.12	1.03	1.58		2	5	10		541	726	751		9.0	11.5	13.4
Winter 25-26	5		0.37	0.47	2.50		2	5	5		225	535	560		5.4	8.4	10.2
Spring 26	3		0.70	0.79	0.87		5	5	5		612	674	678		8.5	12.1	13.8
Summer 26	9		0.68	1.12	1.55		5	5	5		598	734	775		14.5	17.7	23.5
Autumn 26	1		0.67	0.67	0.67		5	5	5		829	829	829		15.1	15.1	15.1

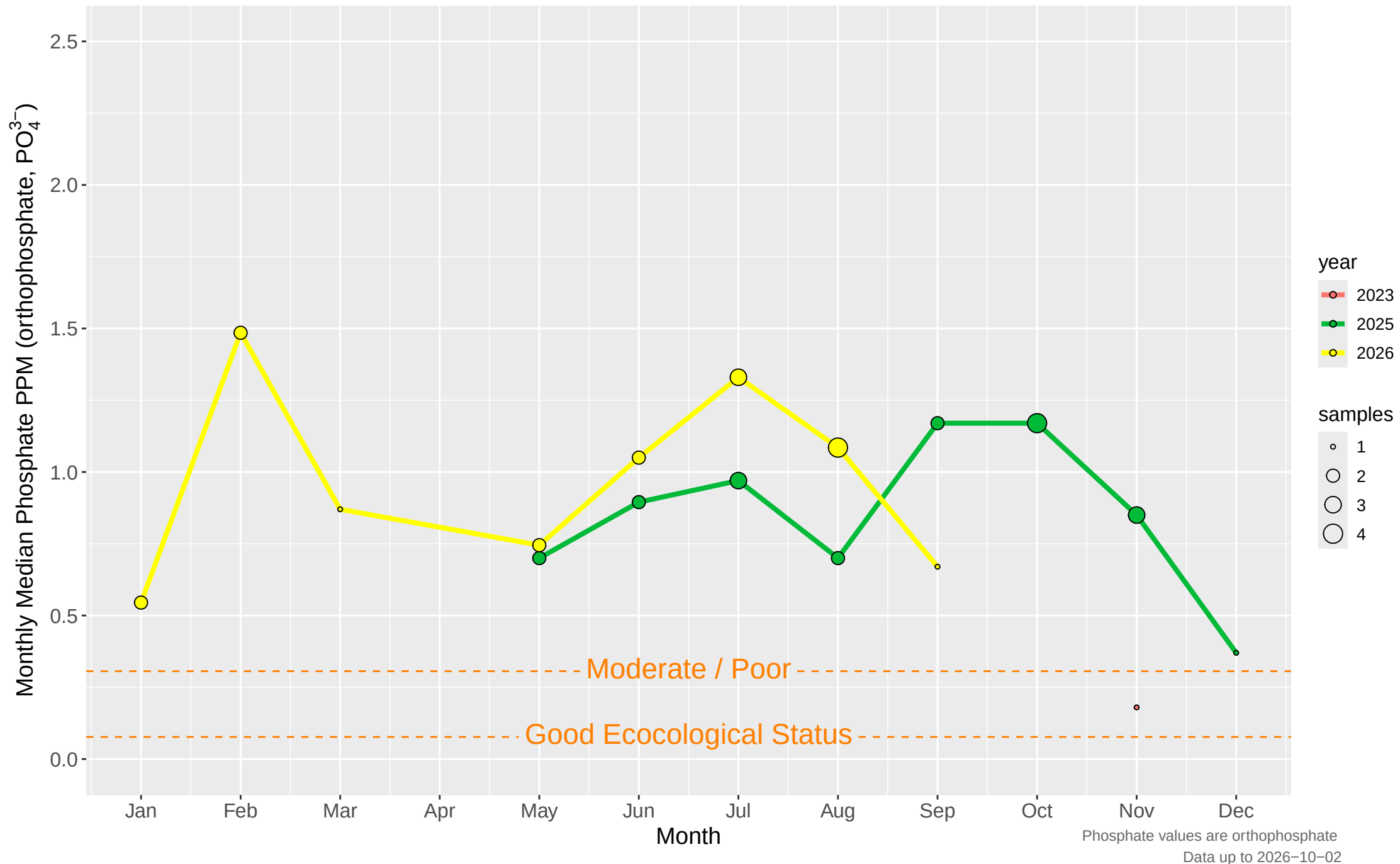
SafeAvon Phosphates – Individual Readings

Stour River – Cherington – Sewage Treatment Works



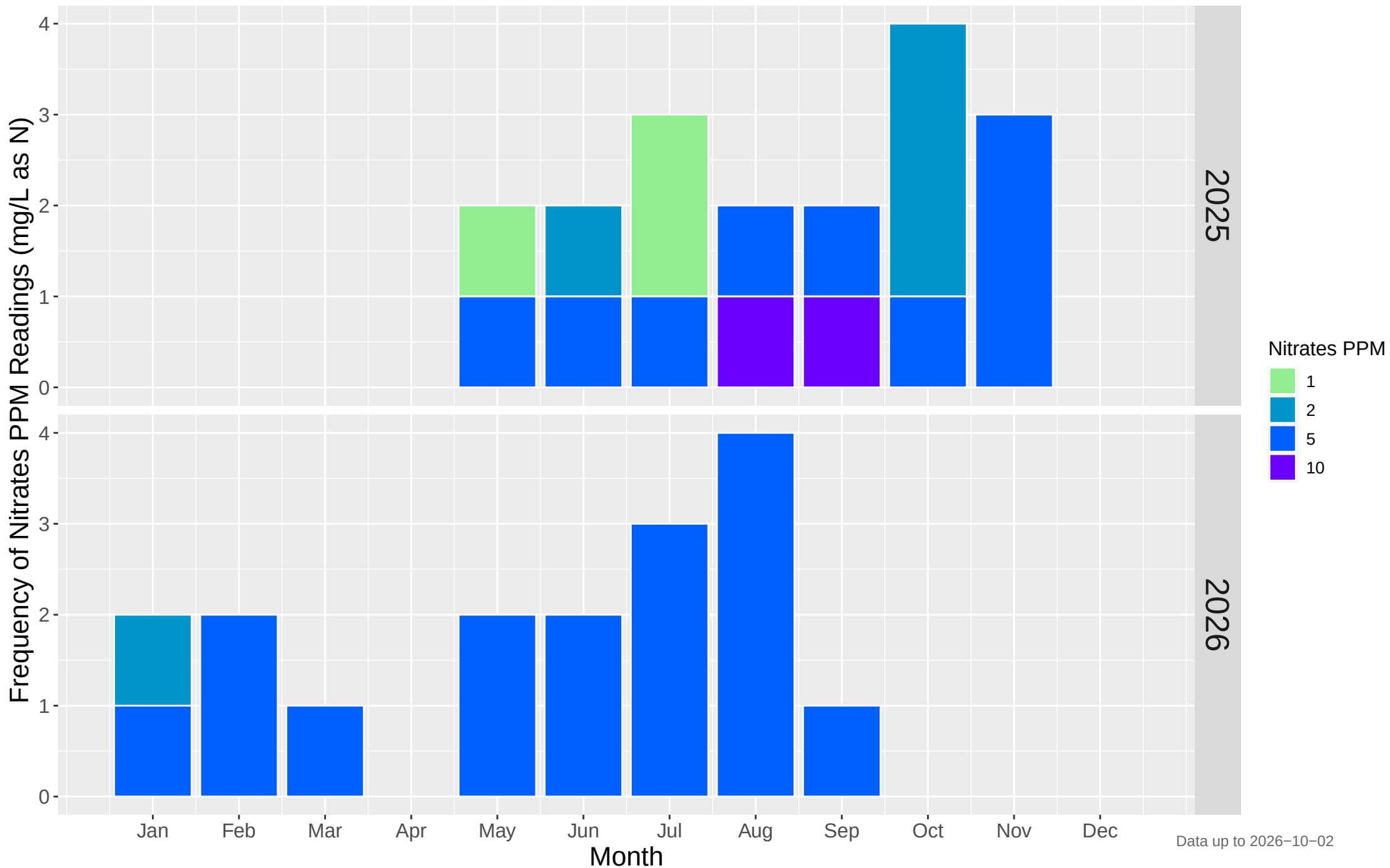
SafeAvon Phosphates – By Month

Stour River – Cherington – Sewage Treatment Works



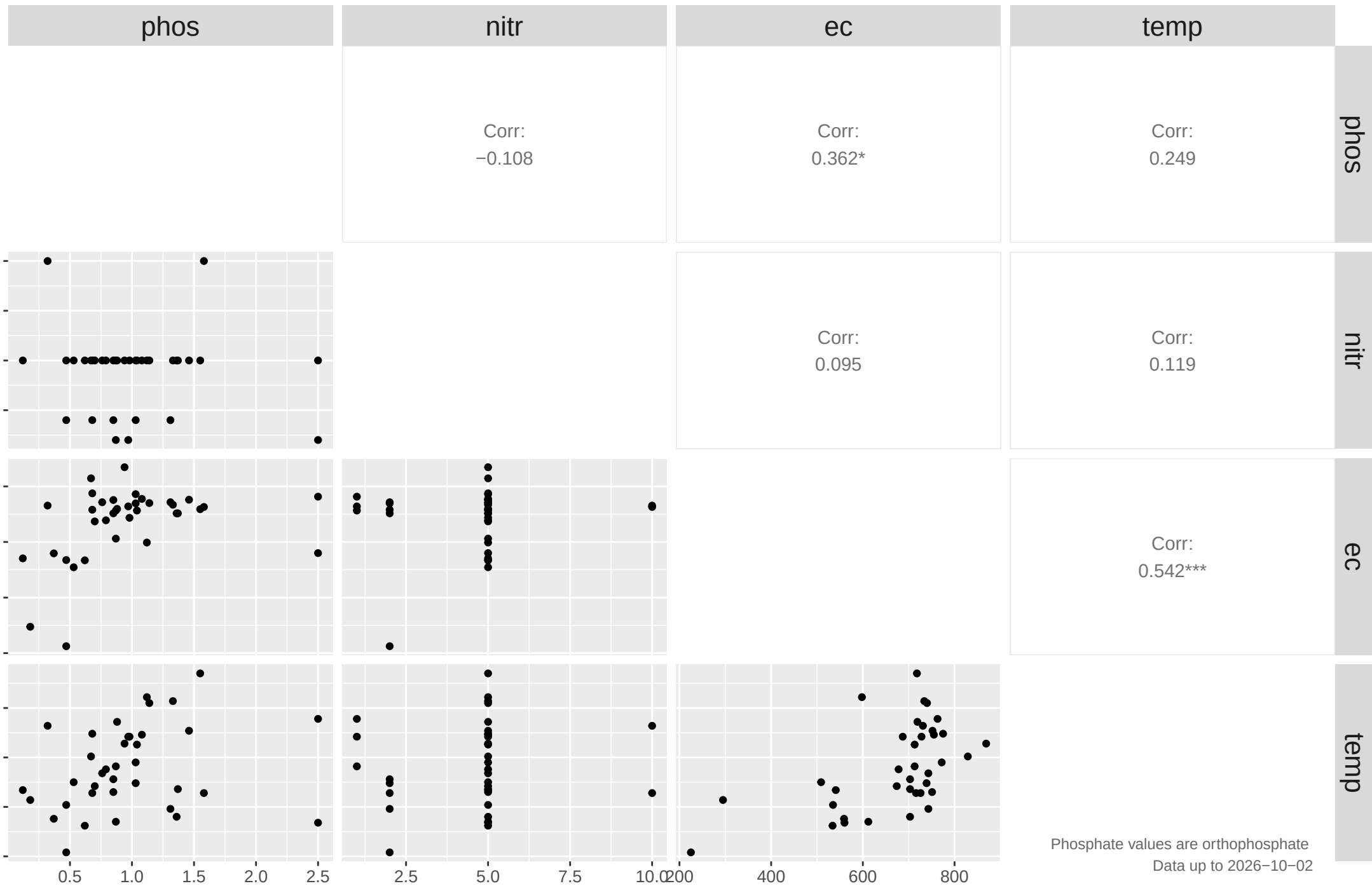
SafeAvon Nitrates By Month

Stour River – Cherington – Sewage Treatment Works



Pairwise Testing Variables Relationships

Stour River – Cherington – Sewage Treatment Works



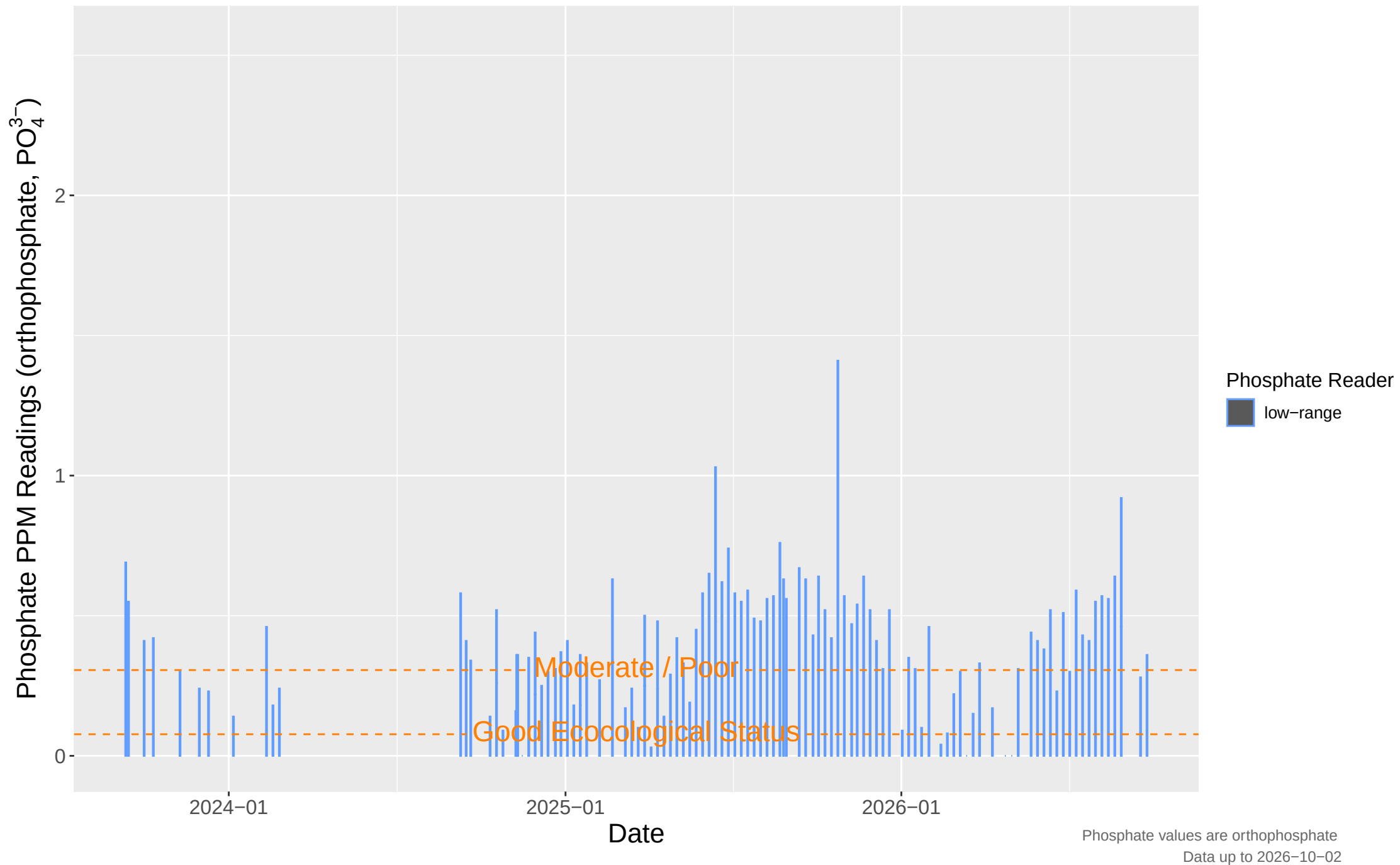
Site: Stour River – Shipston-on-Stour – Mill Bridge

Start Date: 2023-09-11 | Most Recent: 2026-09-25 | Total Samples: 117 | Distinct Volunteers: 8

Season	Count		Phos Min	Phos Med	Phos Max		Nitr Min	Nitr Med	Nitr Max		EC Min	EC Med	EC Max		Temp Min	Temp Med	Temp Max
Autumn 23	6		0.24	0.42	0.69		5	10.0	10		585	649	684		6.1	15.8	20.1
Winter 23-24	5		0.14	0.23	0.46		2	5.0	5		384	543	586		7.7	8.8	9.3
Autumn 24	14		0.00	0.26	0.58		0	3.5	5		14	606	989		7.1	11.1	17.6
Winter 24-25	11		0.18	0.30	0.63		2	2.0	5		468	591	650		1.0	8.5	11.4
Spring 25	15		0.03	0.24	0.58		0	2.0	5		6	604	662		8.7	13.8	19.2
Summer 25	15		0.48	0.57	0.76		0	5.0	10		66	633	755		16.7	19.3	21.0
Autumn 25	13		0.42	0.55	1.41		2	5.0	10		541	663	712		6.3	13.0	17.7
Winter 25-26	11		0.04	0.31	0.52		5	10.0	20		431	504	720		6.7	9.6	12.7
Spring 26	11		0.00	0.23	0.44		0	5.0	10		0	601	654		0.0	12.9	19.5
Summer 26	14		0.23	0.48	0.64		2	5.0	5		196	638	662		15.8	19.9	24.6
Autumn 26	2		0.28	0.32	0.36		2	3.5	5		538	598	657		16.1	16.3	16.5

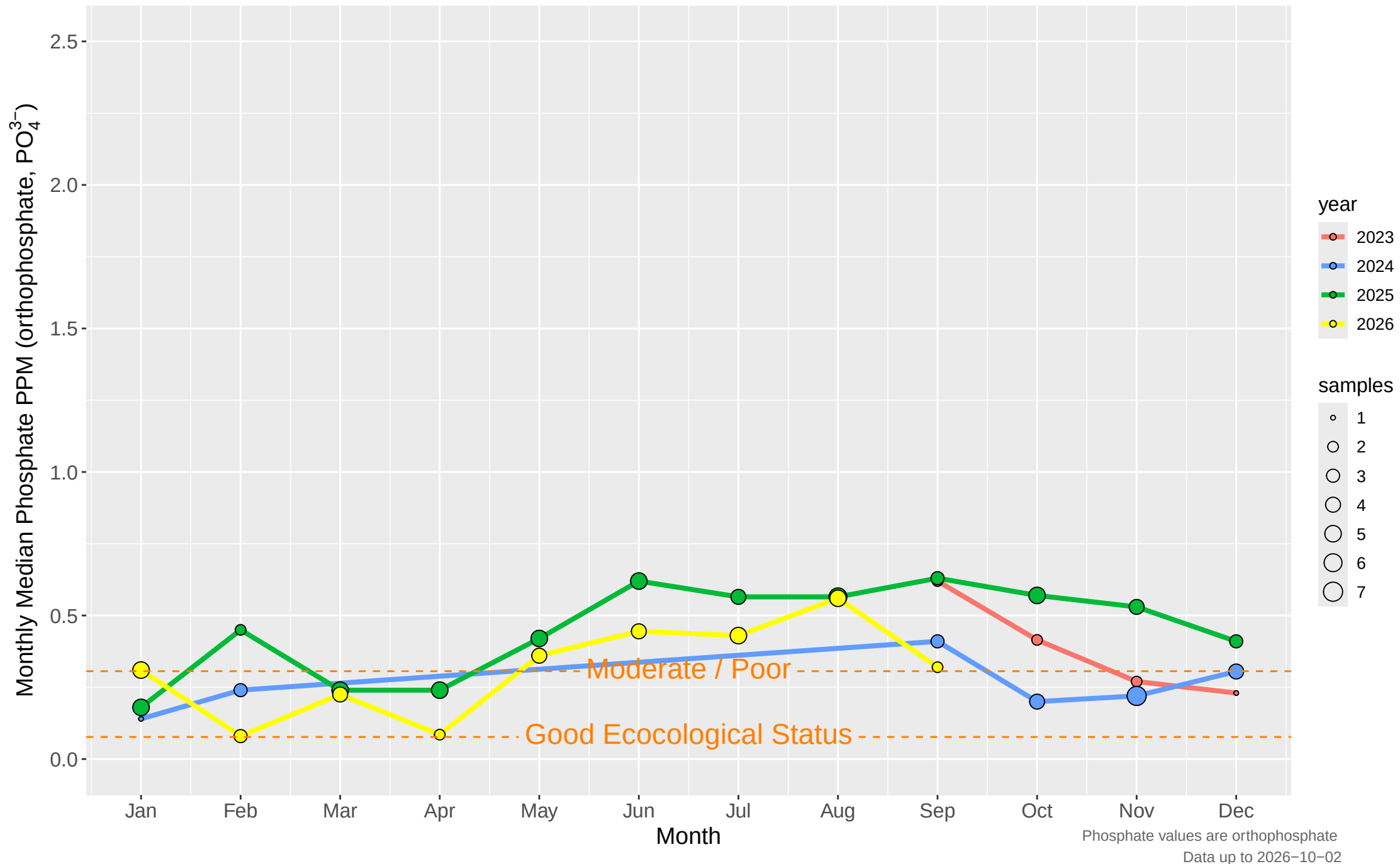
SafeAvon Phosphates – Individual Readings

Stour River – Shipston-on-Stour – Mill Bridge



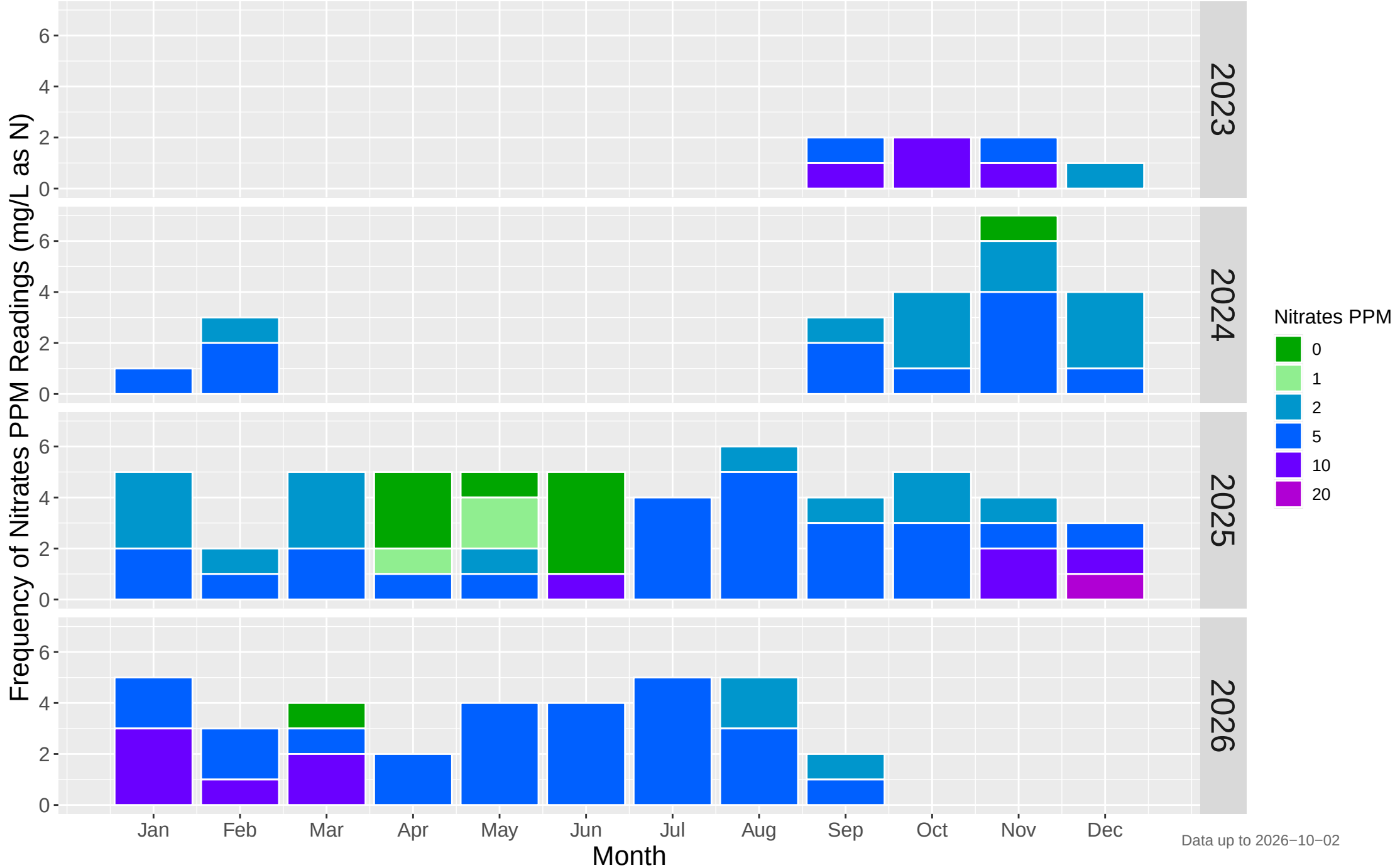
SafeAvon Phosphates – By Month

Stour River – Shipston-on-Stour – Mill Bridge



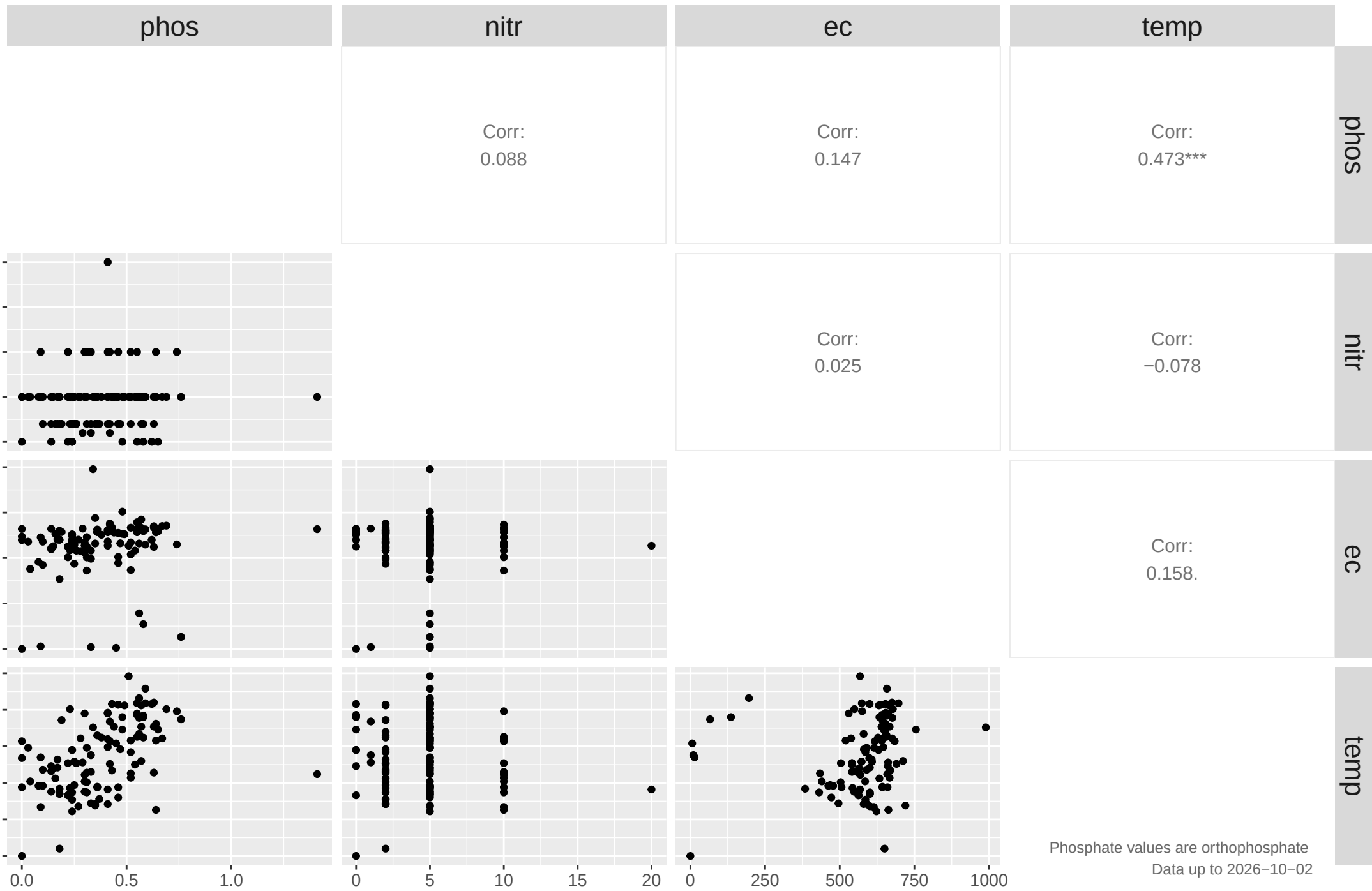
SafeAvon Nitrates By Month

Stour River – Shipston-on-Stour – Mill Bridge



Pairwise Testing Variables Relationships

Stour River – Shipston-on-Stour – Mill Bridge



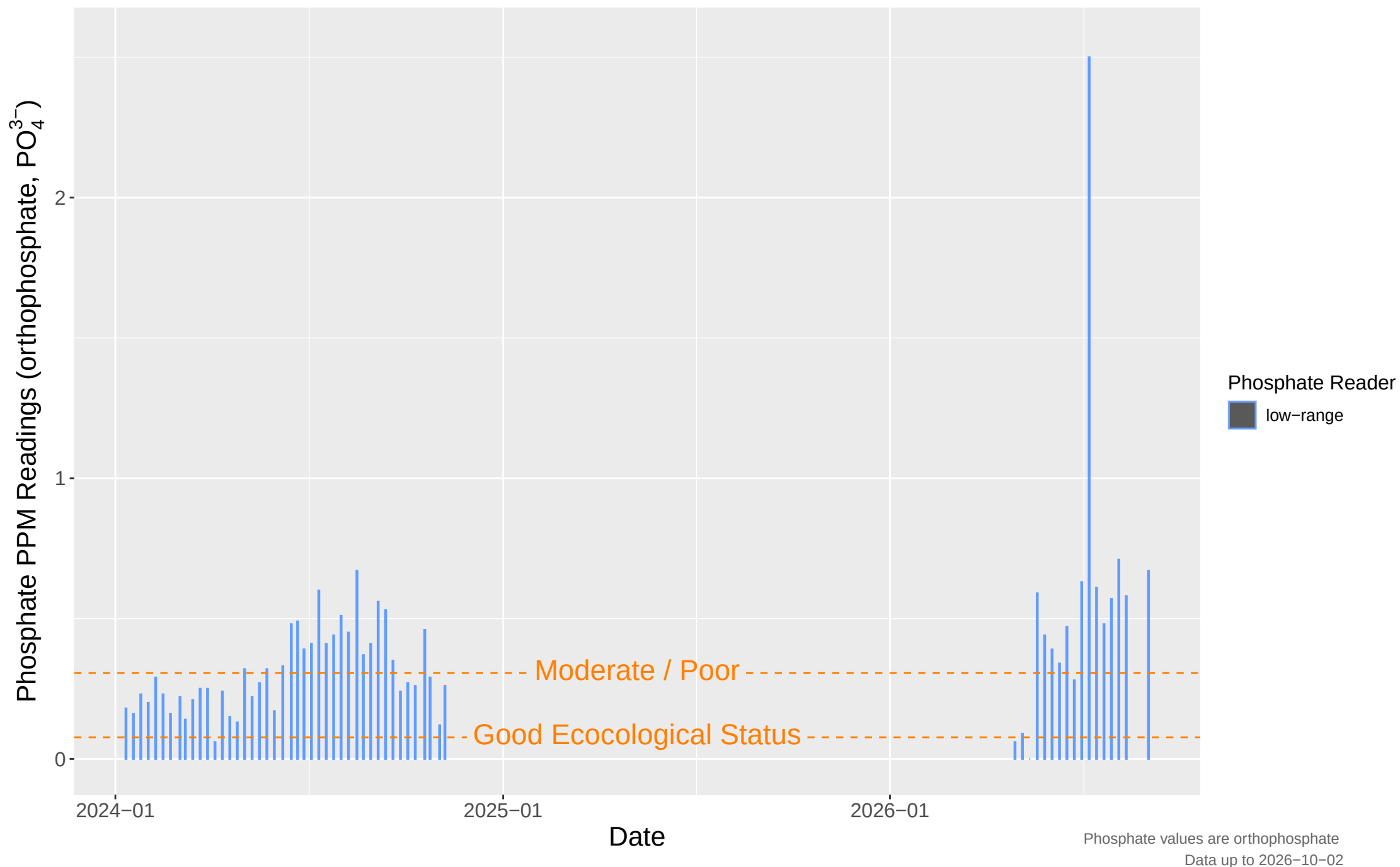
Site: Stour River – Willington – Willington

Start Date: 2024-01-11 | Most Recent: 2026-09-02 | Total Samples: 61 | Distinct Volunteers: 3

Season	Count		Phos Min	Phos Med	Phos Max		Nitr Min	Nitr Med	Nitr Max		EC Min	EC Med	EC Max		Temp Min	Temp Med	Temp Max
Winter 23-24	7		0.16	0.20	0.29		0	2	2		427	602	628		5.4	10.0	12.4
Spring 24	14		0.06	0.22	0.32		1	2	5		325	584	661		8.7	12.9	16.4
Summer 24	13		0.33	0.44	0.67		2	2	5		543	619	645		15.2	16.3	19.8
Autumn 24	10		0.12	0.28	0.56		2	2	2		409	597	637		12.4	13.7	15.2
Spring 26	5		0.00	0.09	0.59		5	5	10		557	610	654		12.4	14.3	20.8
Summer 26	11		0.28	0.57	2.50		2	5	10		595	638	659		15.4	19.6	23.5
Autumn 26	1		0.67	0.67	0.67		5	5	5		662	662	662		17.4	17.4	17.4

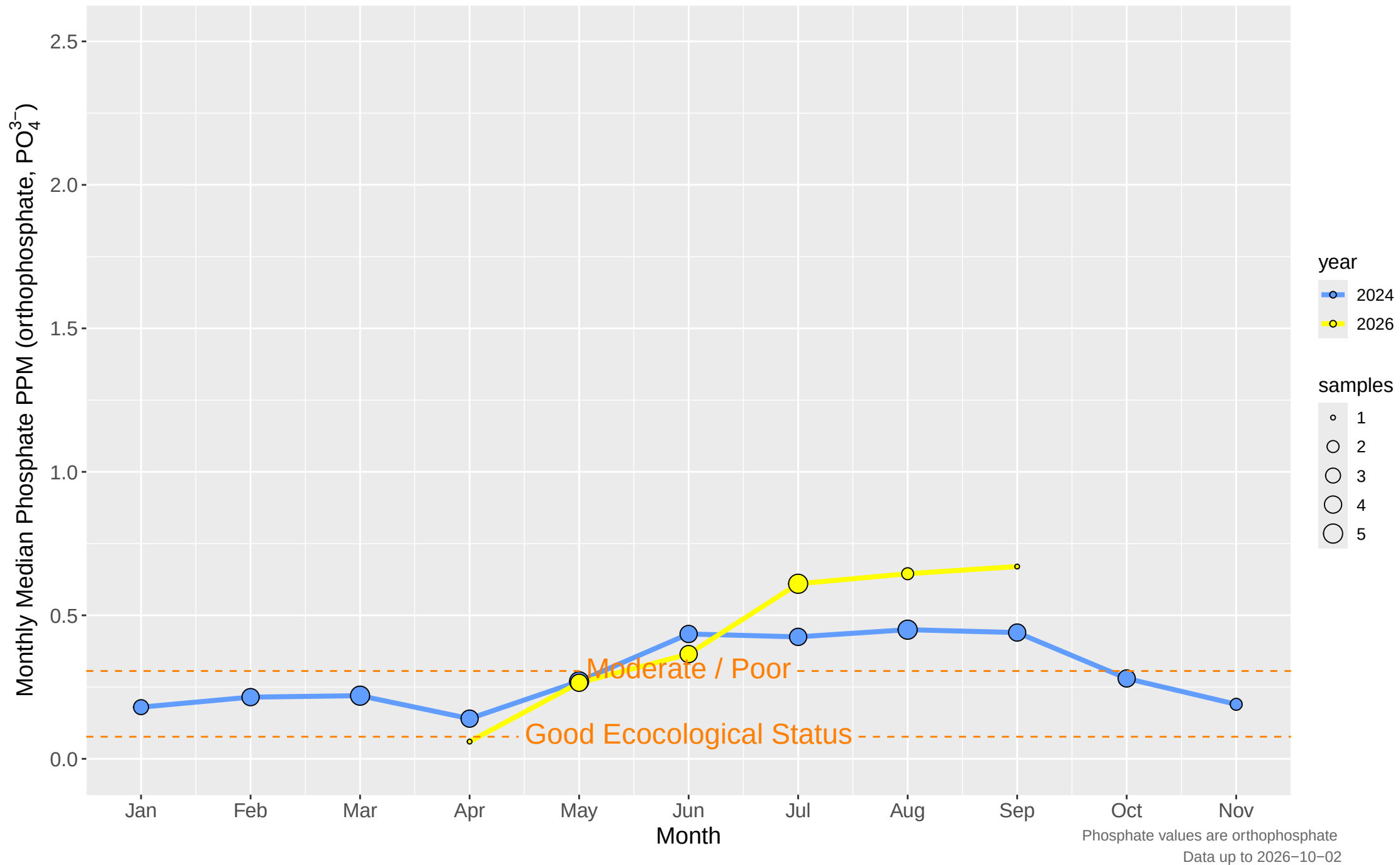
SafeAvon Phosphates – Individual Readings

Stour River – Willington – Willington



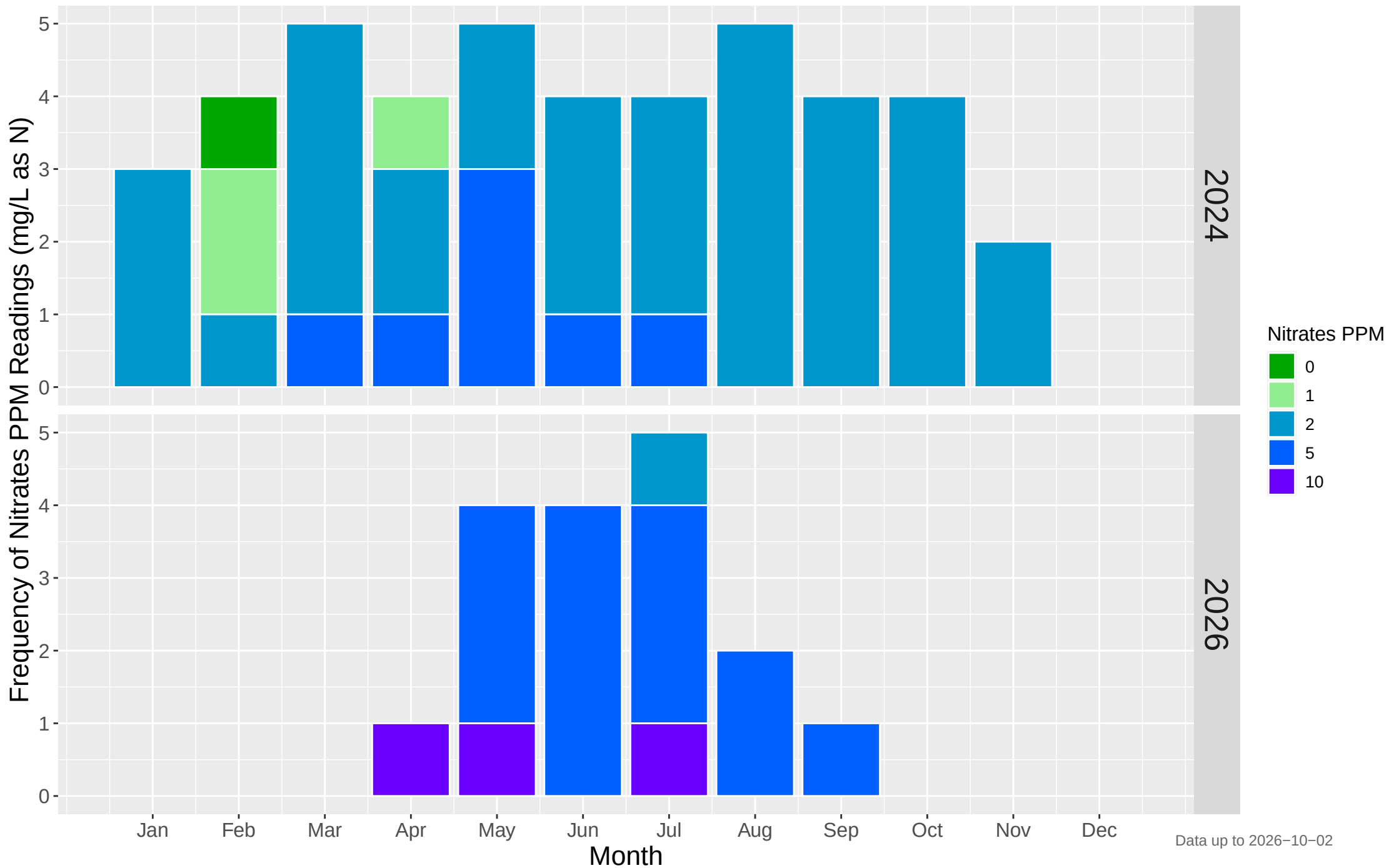
SafeAvon Phosphates – By Month

Stour River – Willington – Willington



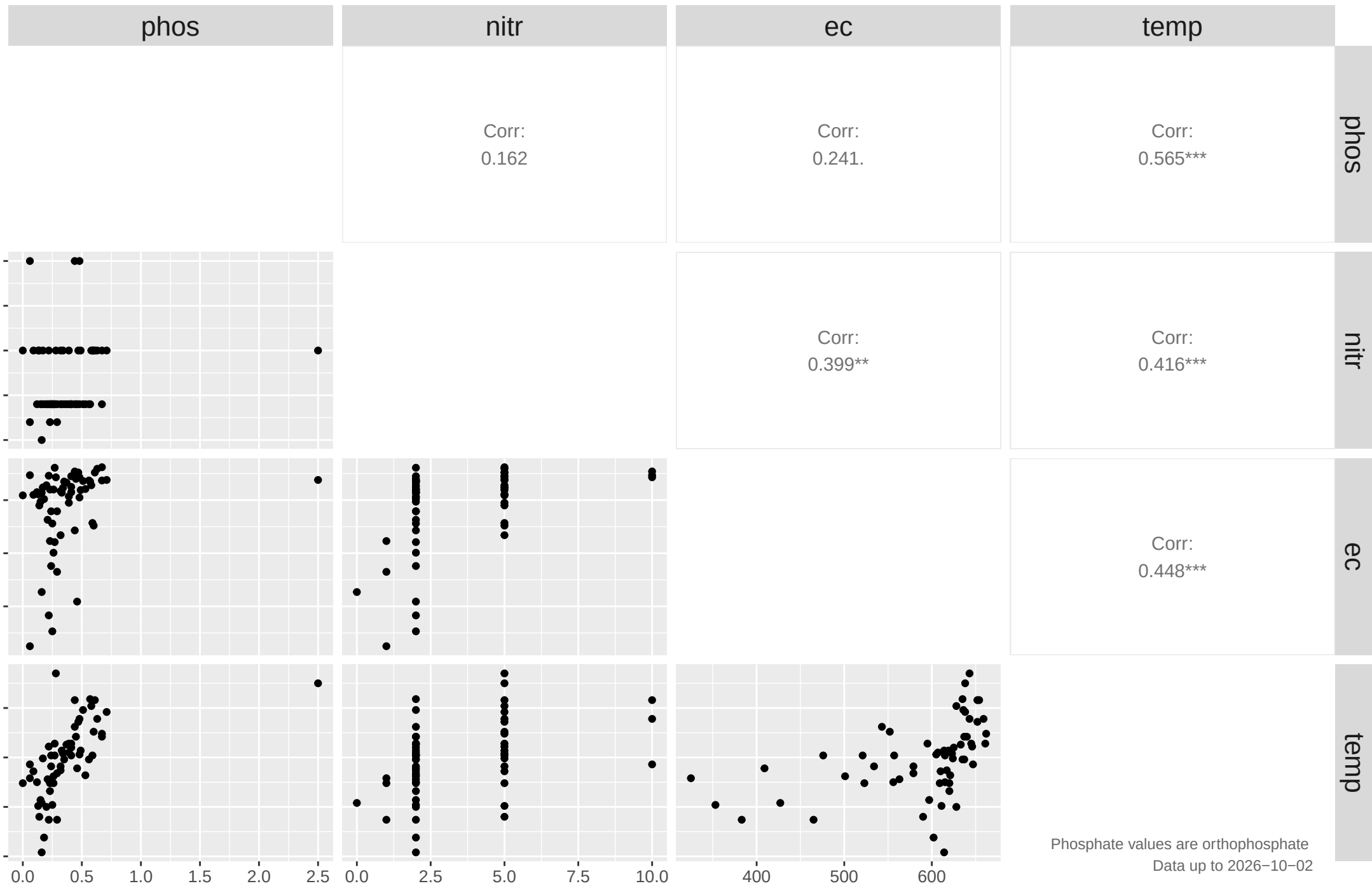
SafeAvon Nitrates By Month

Stour River – Willington – Willington



Pairwise Testing Variables Relationships

Stour River – Willington – Willington

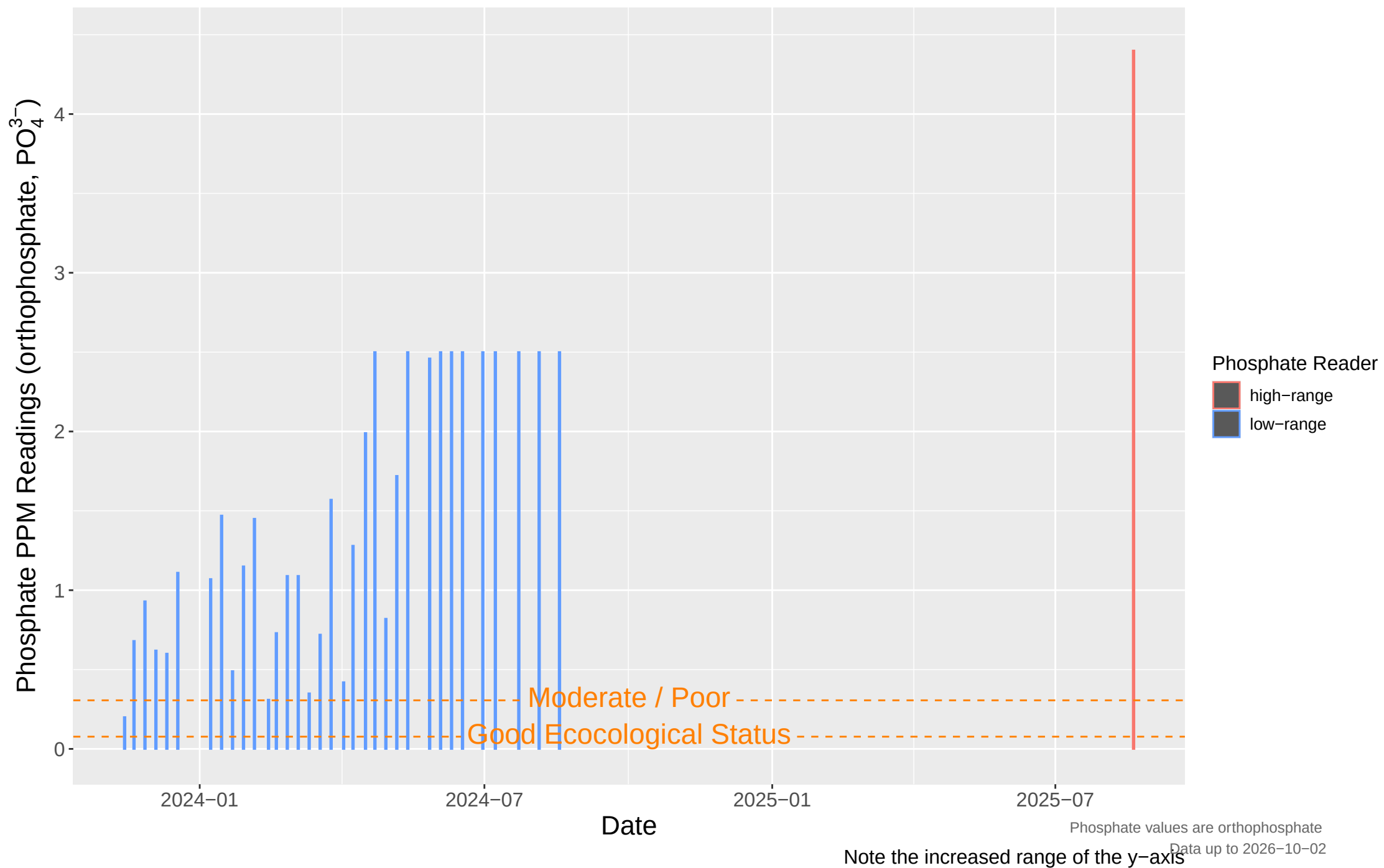


Site: Stour River – Stretton-on-Fosse – Above Works

Start Date: 2023-11-14 | Most Recent: 2025-08-20 | Total Samples: 35 | Distinct Volunteers: 2

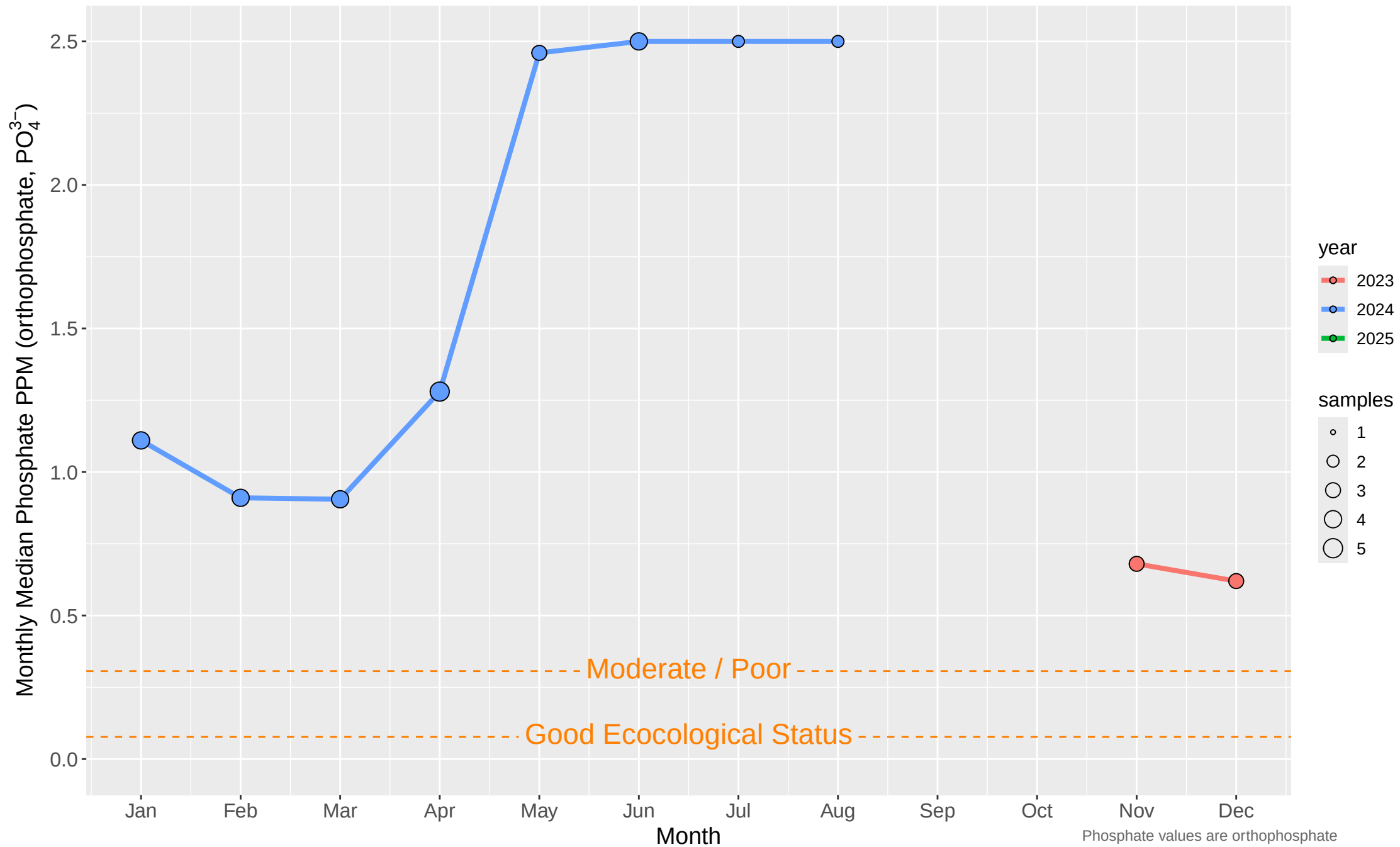
Season	Count		Phos Min	Phos Med	Phos Max		Nitr Min	Nitr Med	Nitr Max		EC Min	EC Med	EC Max		Temp Min	Temp Med	Temp Max
Autumn 23	3		0.20	0.68	0.93		2	2	5		394	573	668		9.3	10.2	10.5
Winter 23-24	11		0.31	1.07	1.47		2	2	2		319	564	751		4.3	8.8	11.2
Spring 24	12		0.35	1.43	2.50		1	2	2		418	656	760		5.5	9.8	14.5
Summer 24	8		2.50	2.50	2.50		0	1	2		684	701	776		12.6	14.1	18.5
Summer 25	1		4.40	4.40	4.40		2	2	2		780	780	780		17.7	17.7	17.7

Stour River – Stretton-on-Fosse – Above Works



SafeAvon Phosphates – By Month

Stour River – Stretton-on-Fosse – Above Works



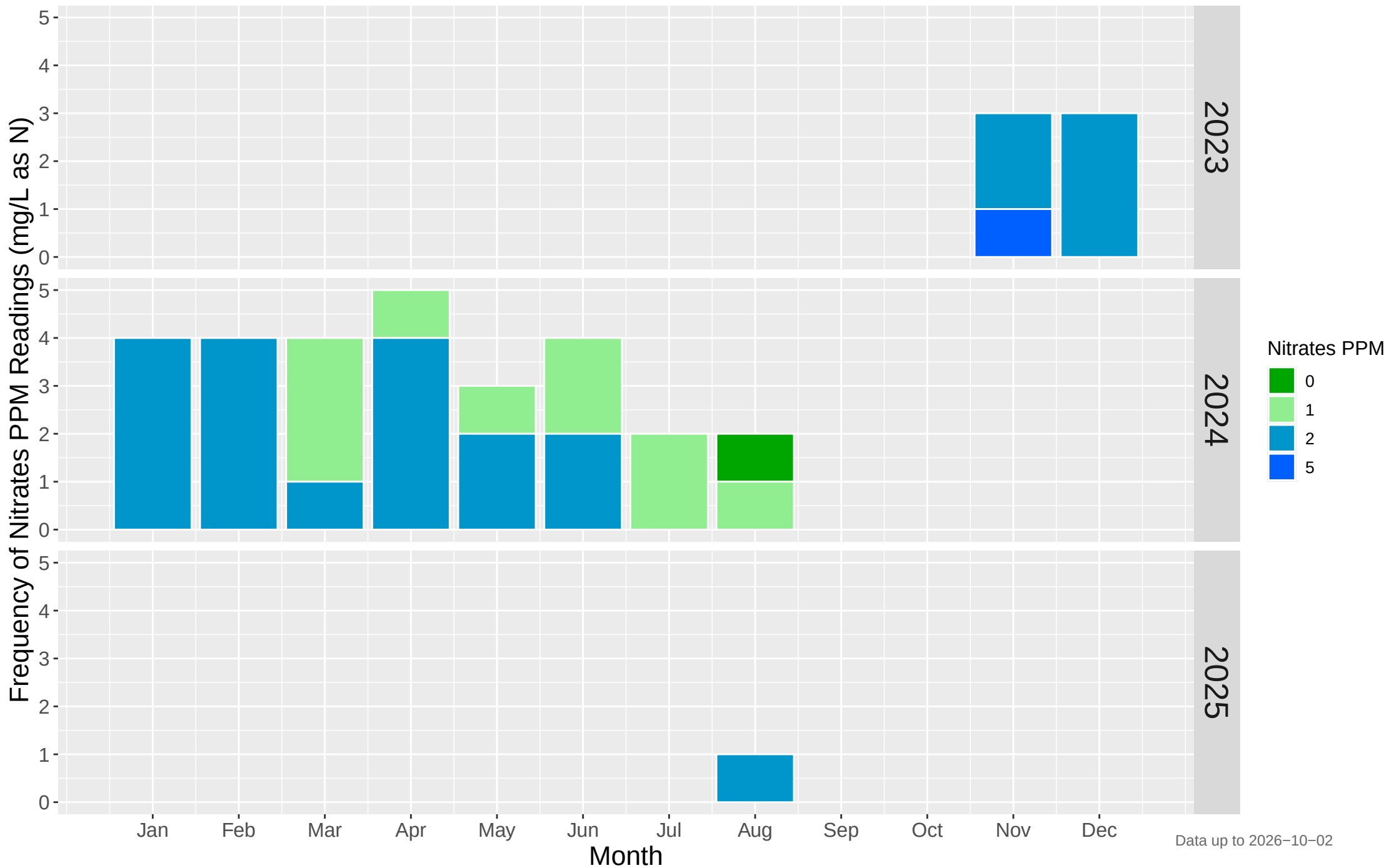
Phosphate values are orthophosphate

Data up to 2026-10-02

Note the increased range of the y-axis

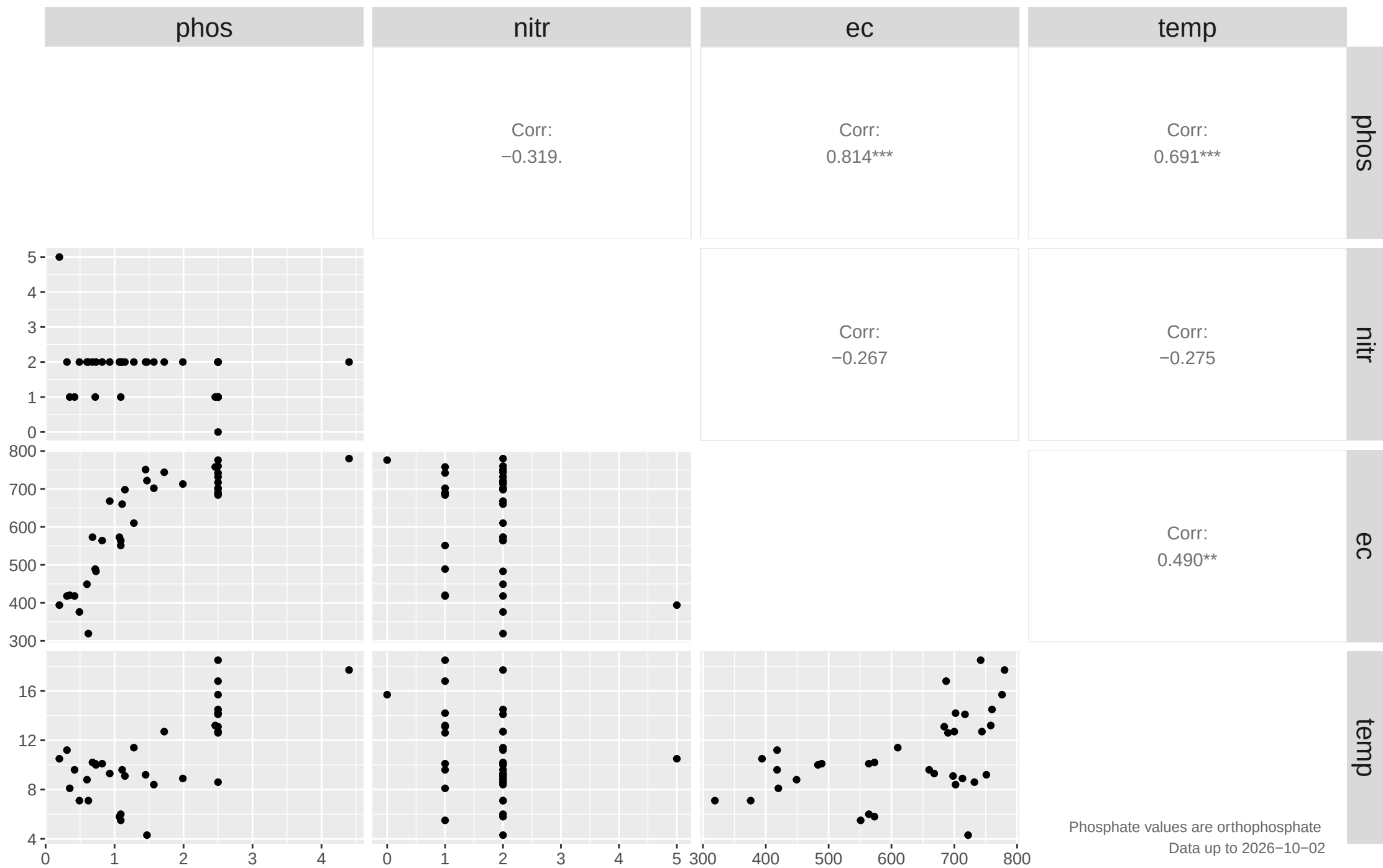
SafeAvon Nitrates By Month

Stour River – Stretton-on-Fosse – Above Works



Pairwise Testing Variables Relationships

Stour River – Stretton-on-Fosse – Above Works



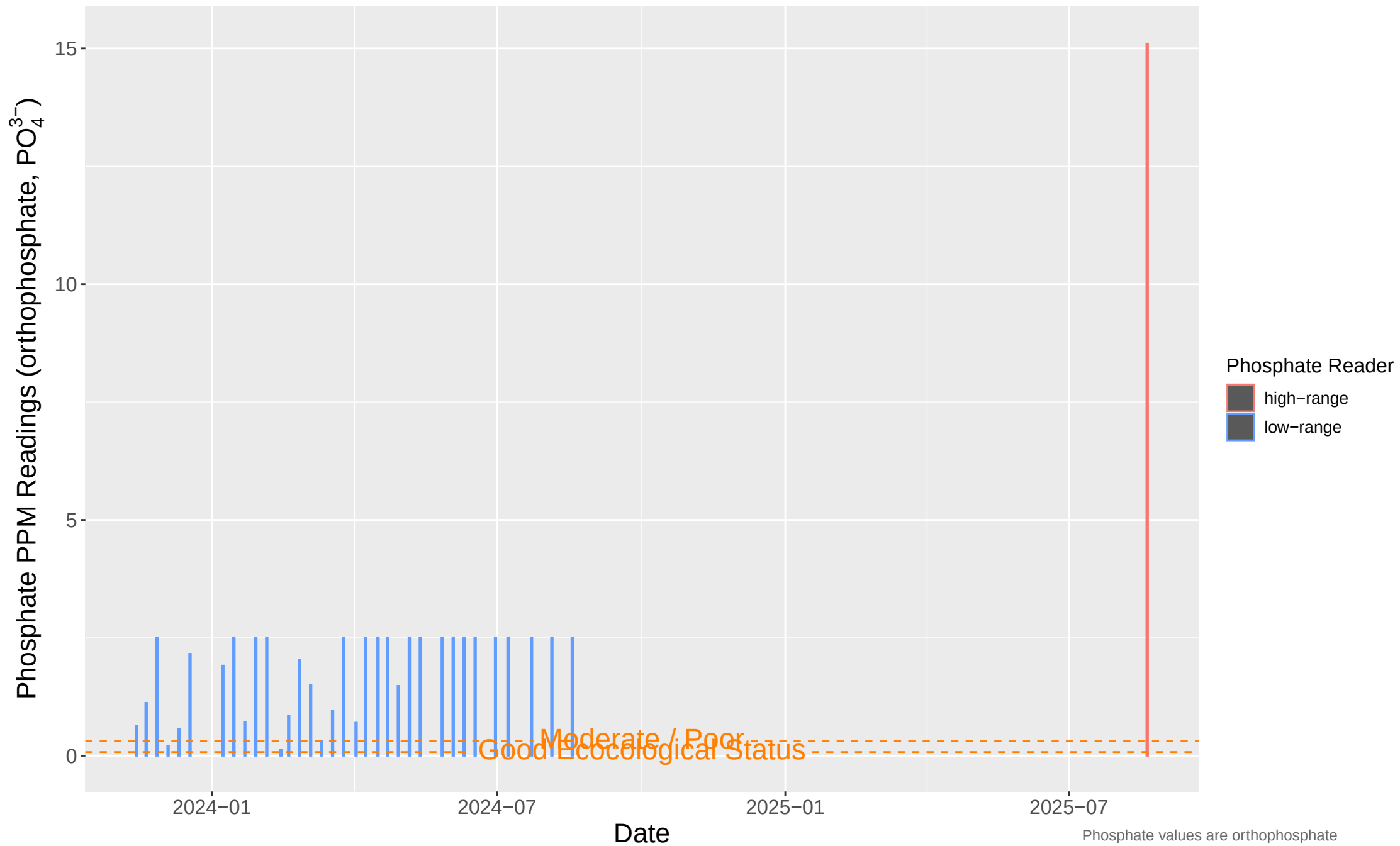
Site: Stour River – Stretton-on-Fosse – Below Works

Start Date: 2023-11-14 | Most Recent: 2025-08-20 | Total Samples: 35 | Distinct Volunteers: 2

Season	Count		Phos Min	Phos Med	Phos Max		Nitr Min	Nitr Med	Nitr Max		EC Min	EC Med	EC Max		Temp Min	Temp Med	Temp Max
Autumn 23	3		0.64	1.12	2.5		5	5	5		453	556	703		8.6	10.3	10.5
Winter 23-24	11		0.13	1.91	2.5		2	2	5		298	628	787		3.5	8.3	11.2
Spring 24	12		0.31	2.50	2.5		1	2	5		425	715	850		5.1	9.6	14.3
Summer 24	8		2.50	2.50	2.5		1	2	5		739	846	932		13.7	15.6	19.4
Summer 25	1		15.10	15.10	15.1		10	10	10		1020	1020	1020		18.3	18.3	18.3

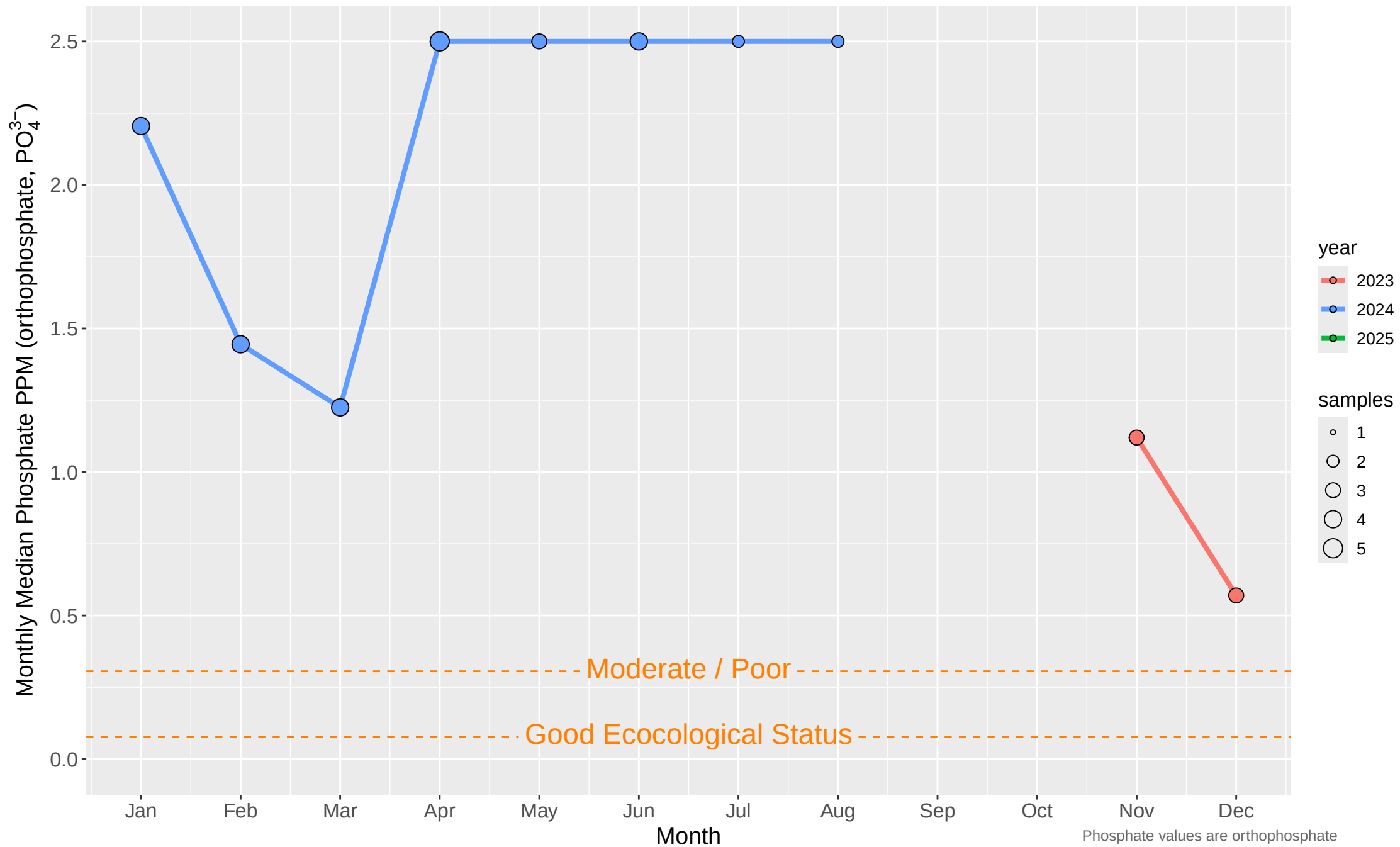
SafeAvon Phosphates – Individual Readings

Stour River – Stretton-on-Fosse – Below Works



SafeAvon Phosphates – By Month

Stour River – Stretton-on-Fosse – Below Works



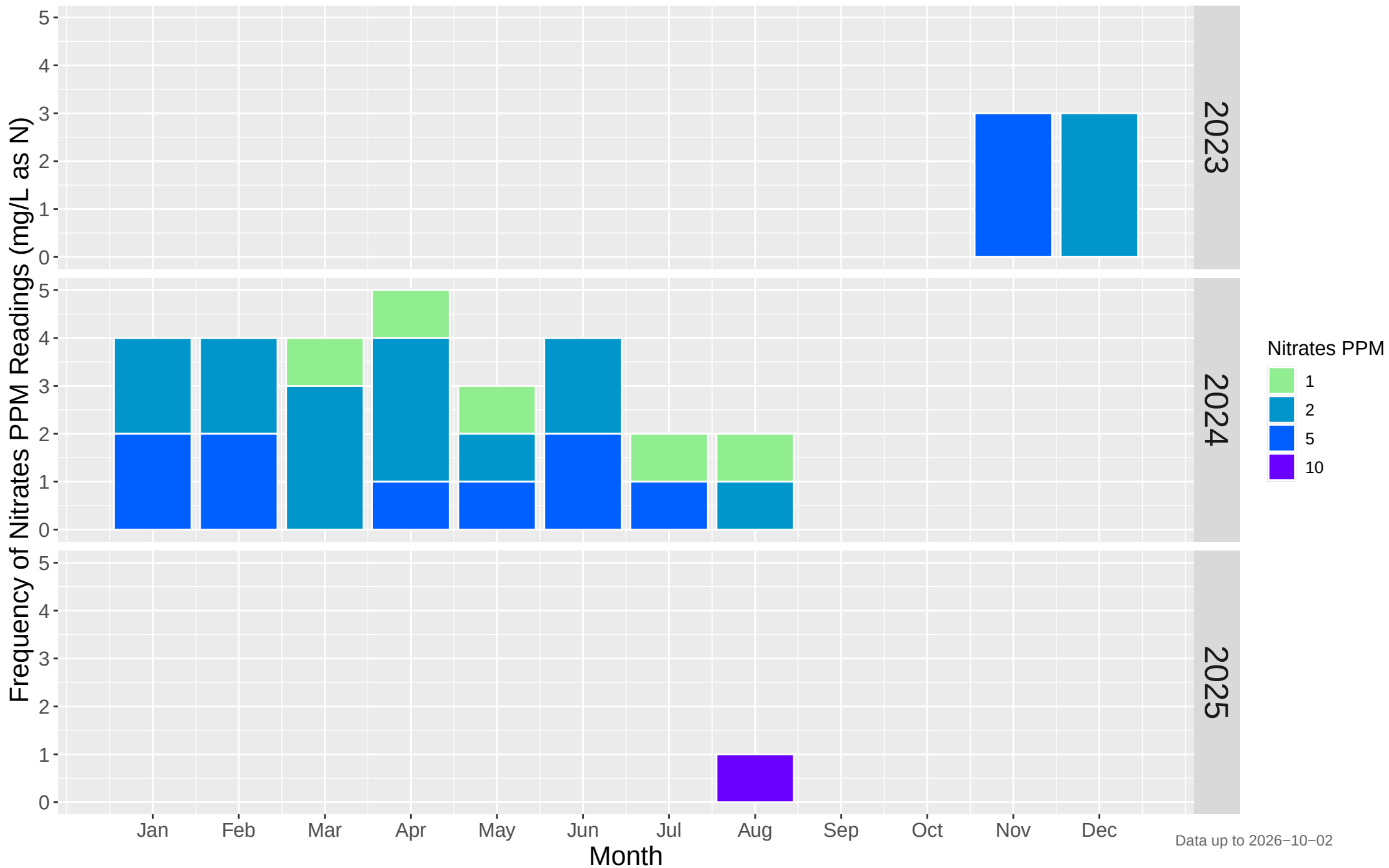
Phosphate values are orthophosphate

Data up to 2026-10-02

Note the increased range of the y-axis

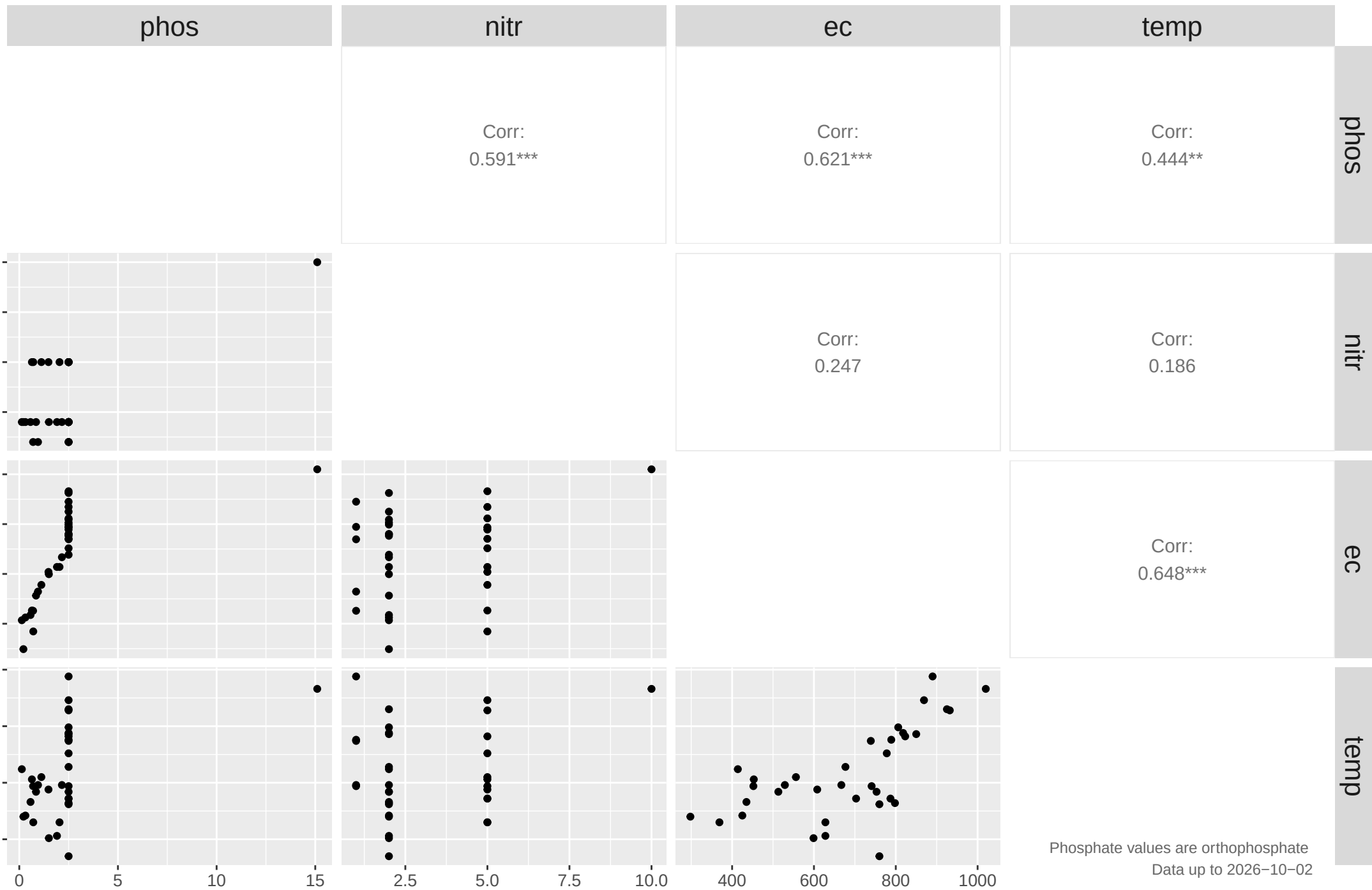
SafeAvon Nitrates By Month

Stour River – Stretton-on-Fosse – Below Works



Pairwise Testing Variables Relationships

Stour River – Stretton-on-Fosse – Below Works



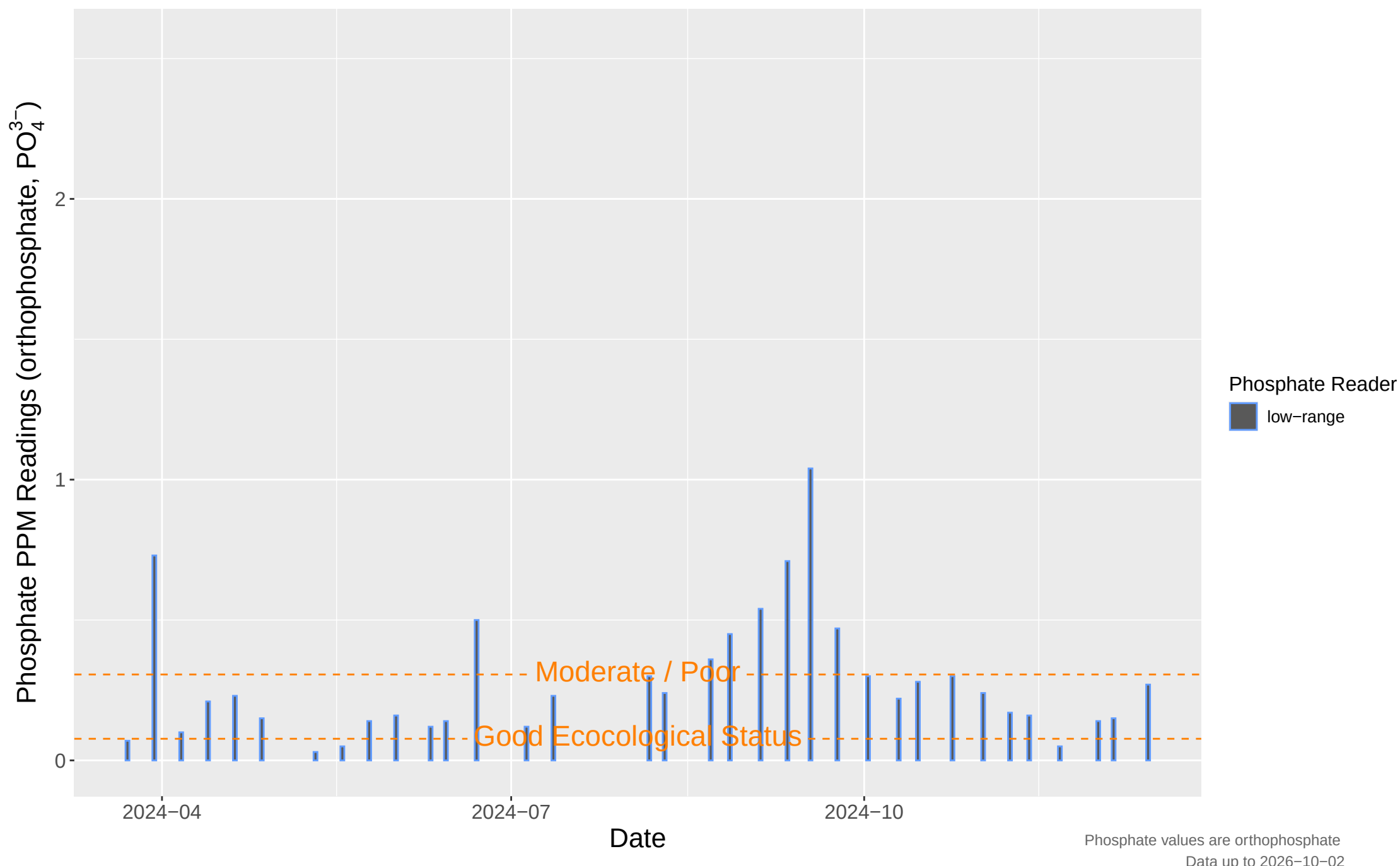
Site: Stour River – Ascott – Village

Start Date: 2024-03-23 | Most Recent: 2024-12-14 | Total Samples: 34 | Distinct Volunteers: 1

Season	Count		Phos Min	Phos Med	Phos Max		Nitr Min	Nitr Med	Nitr Max		EC Min	EC Med	EC Max		Temp Min	Temp Med	Temp Max
Spring 24	9		0.03	0.14	0.73		1	2	5		506	551	567		8.5	12.9	19.6
Summer 24	10		0.12	0.23	0.50		1	1	2		195	506	634		12.6	16.4	20.3
Autumn 24	12		0.05	0.29	1.04		0	1	1		365	527	686		4.5	12.1	16.5
Winter 24-25	3		0.14	0.15	0.27		1	1	1		555	613	686		4.5	7.1	11.1

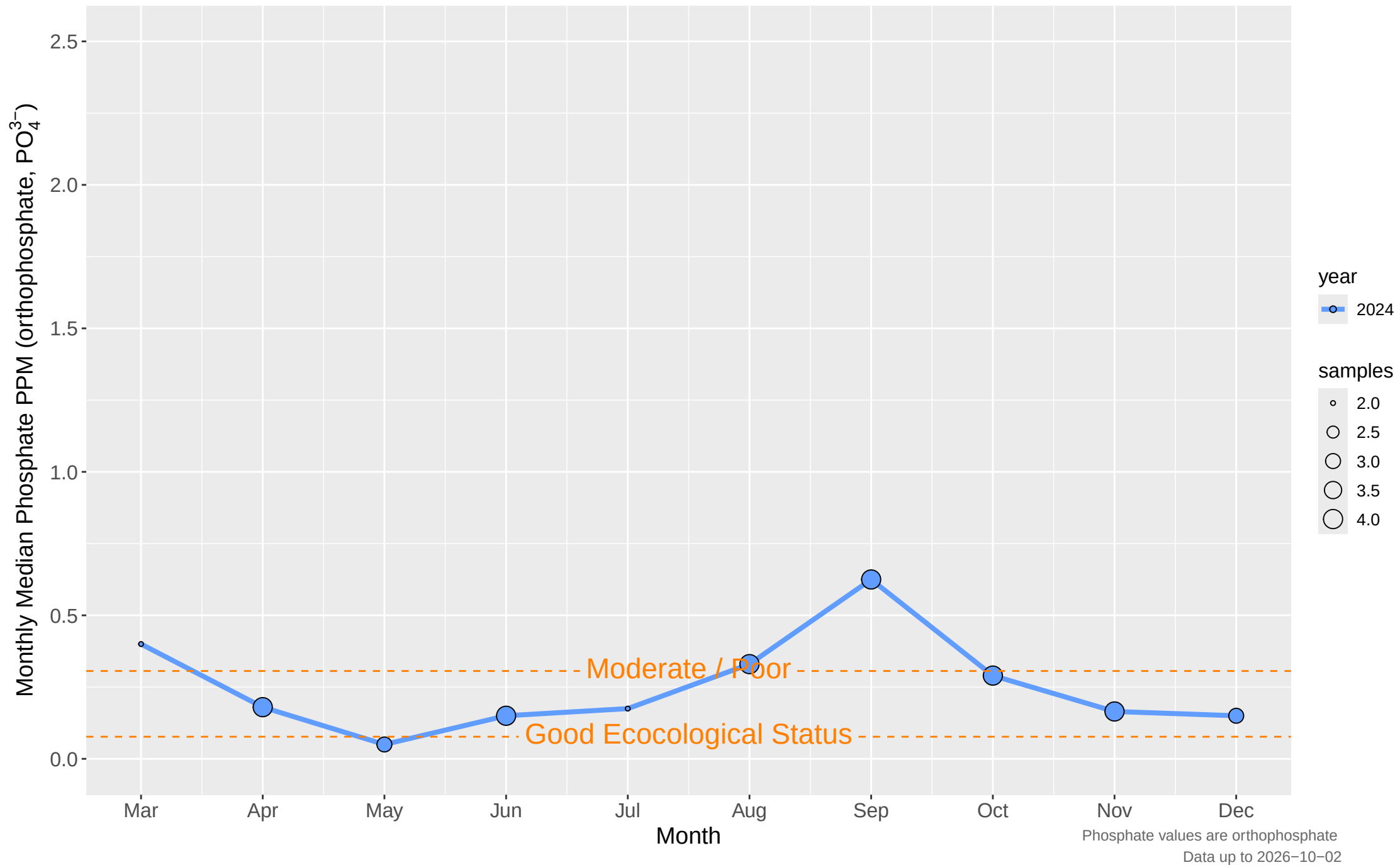
SafeAvon Phosphates – Individual Readings

Stour River – Ascott – Village



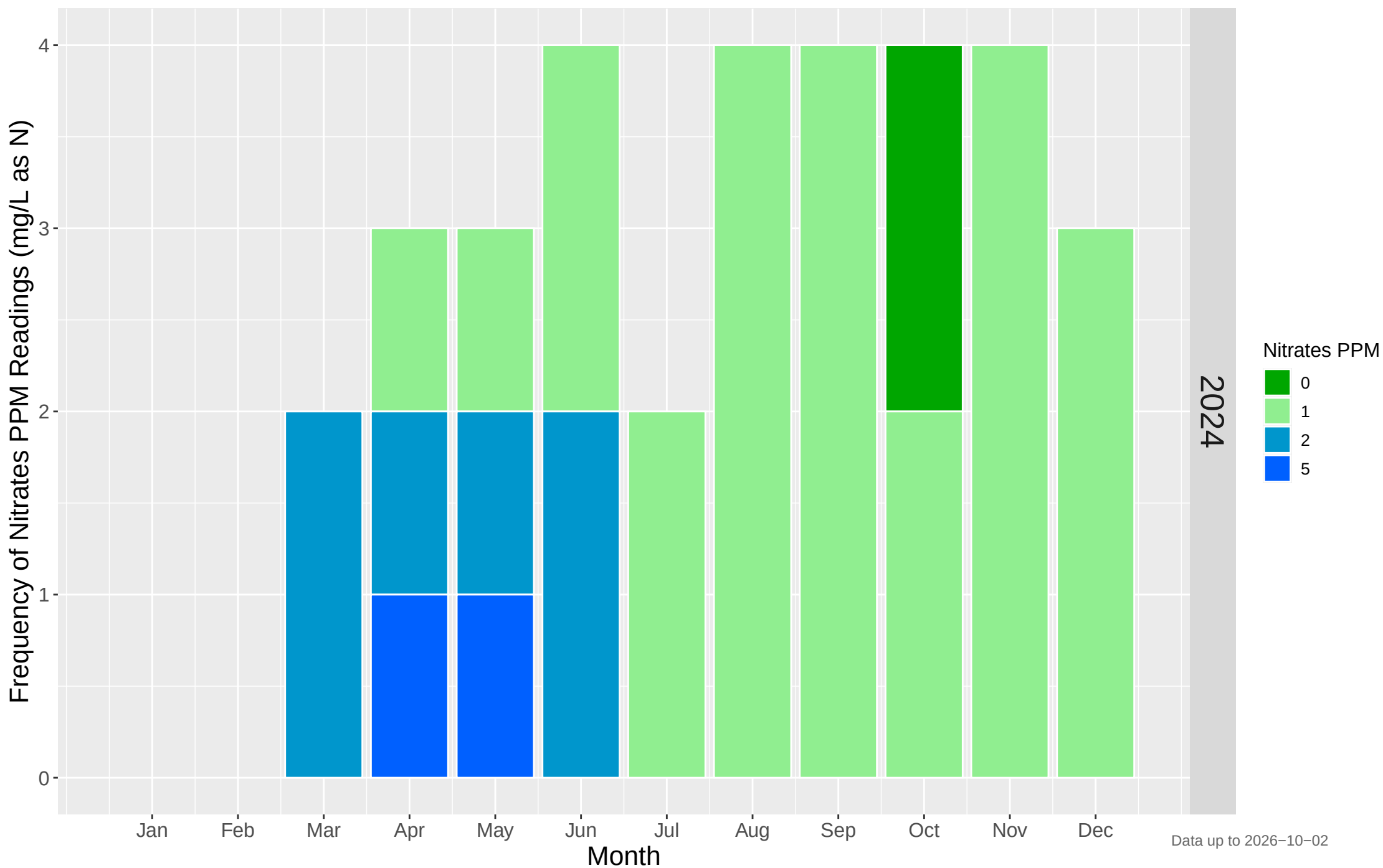
SafeAvon Phosphates – By Month

Stour River – Ascott – Village



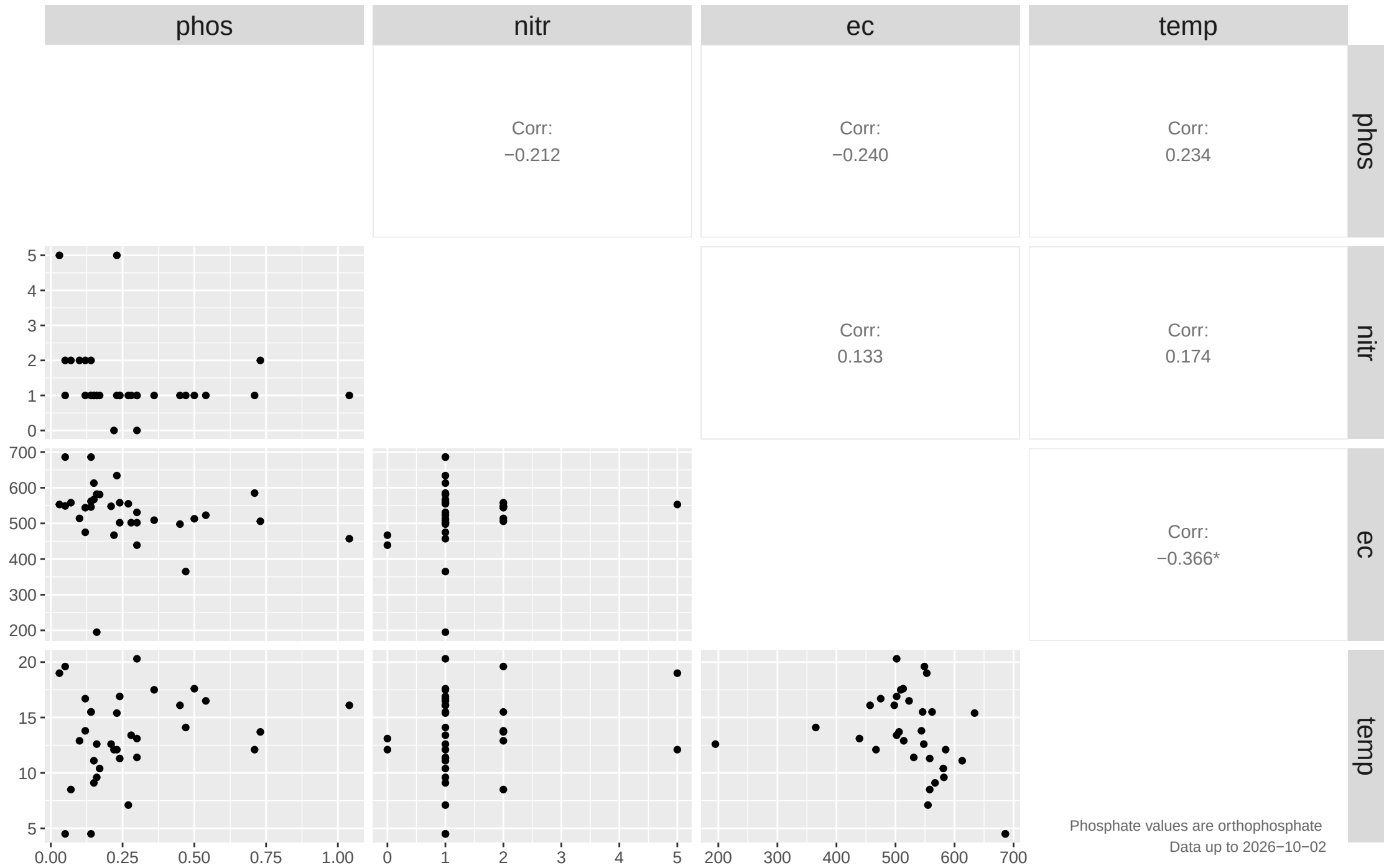
SafeAvon Nitrates By Month

Stour River – Ascott – Village



Pairwise Testing Variables Relationships

Stour River – Ascott – Village



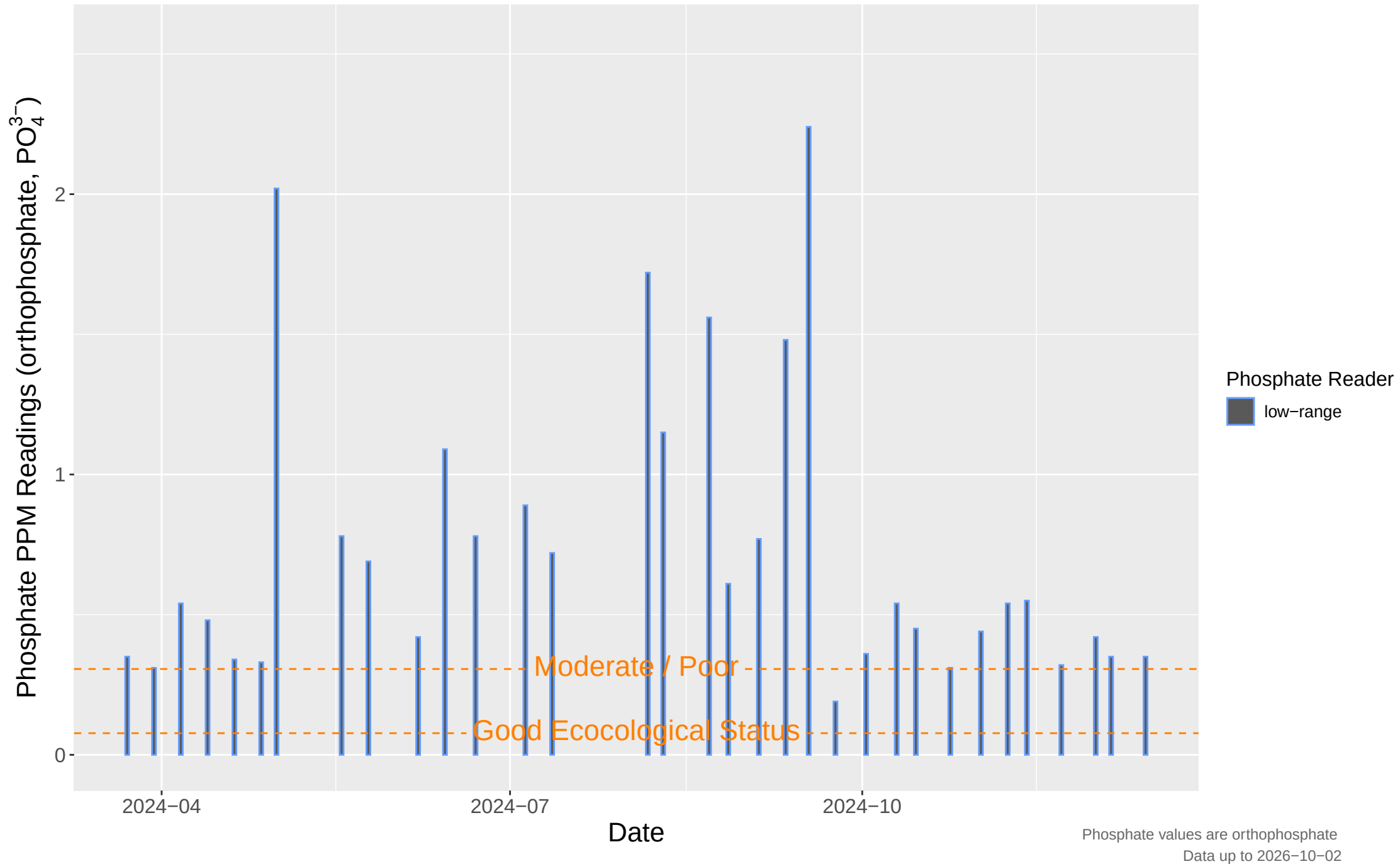
Site: Stour River – Whichford – Barrats Hill

Start Date: 2024-03-23 | Most Recent: 2024-12-14 | Total Samples: 33 | Distinct Volunteers: 1

Season	Count		Phos Min	Phos Med	Phos Max		Nitr Min	Nitr Med	Nitr Max		EC Min	EC Med	EC Max		Temp Min	Temp Med	Temp Max
Spring 24	9		0.31	0.48	2.02		1	2	5		509	593	656		9.2	12.8	17.5
Summer 24	9		0.42	0.89	1.72		2	2	2		101	662	718		11.3	16.1	17.5
Autumn 24	12		0.19	0.50	2.24		1	2	5		122	608	756		10.1	11.9	14.8
Winter 24-25	3		0.35	0.35	0.42		2	2	5		504	604	625		7.6	11.7	12.1

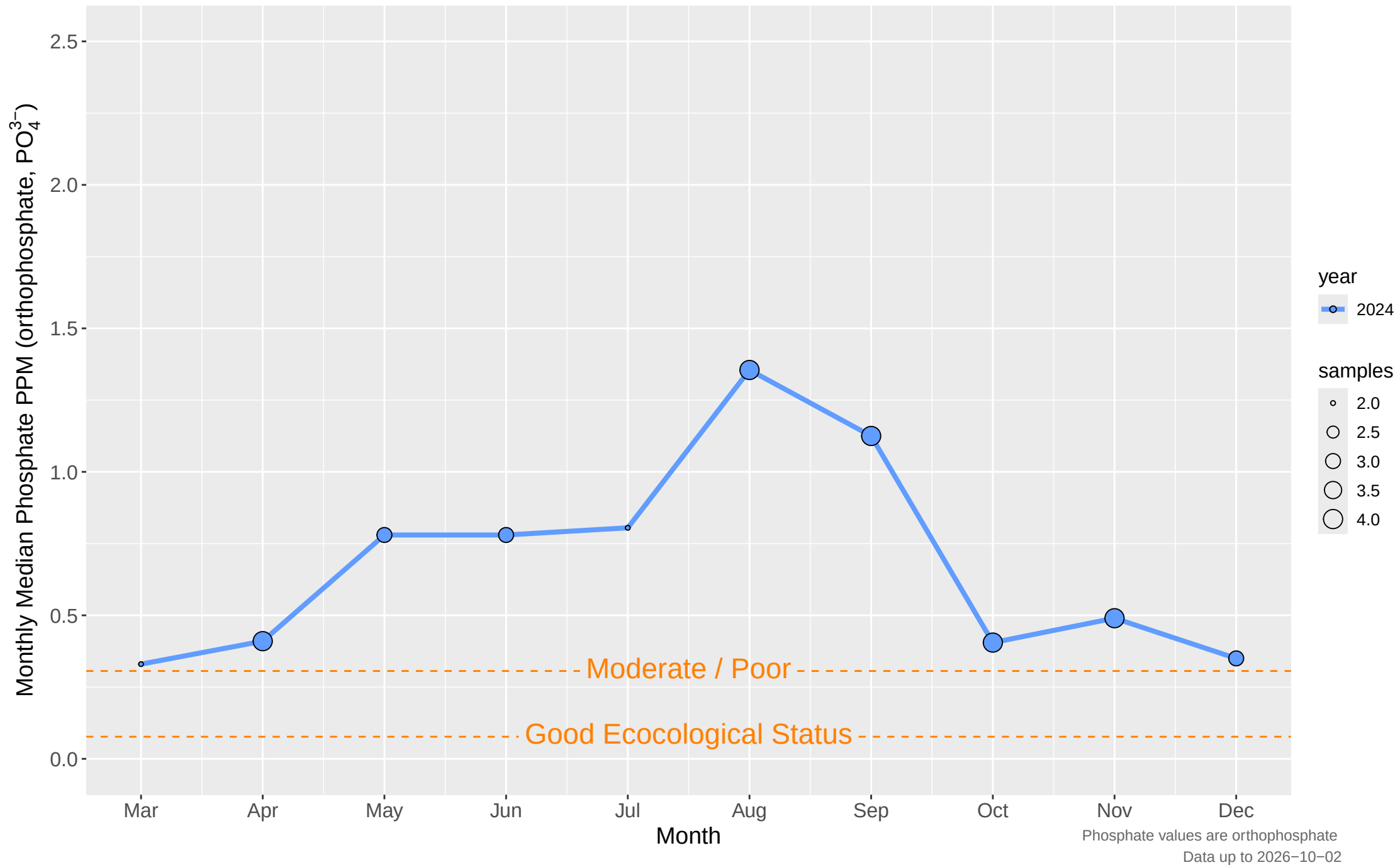
SafeAvon Phosphates – Individual Readings

Stour River – Whichford – Barrats Hill



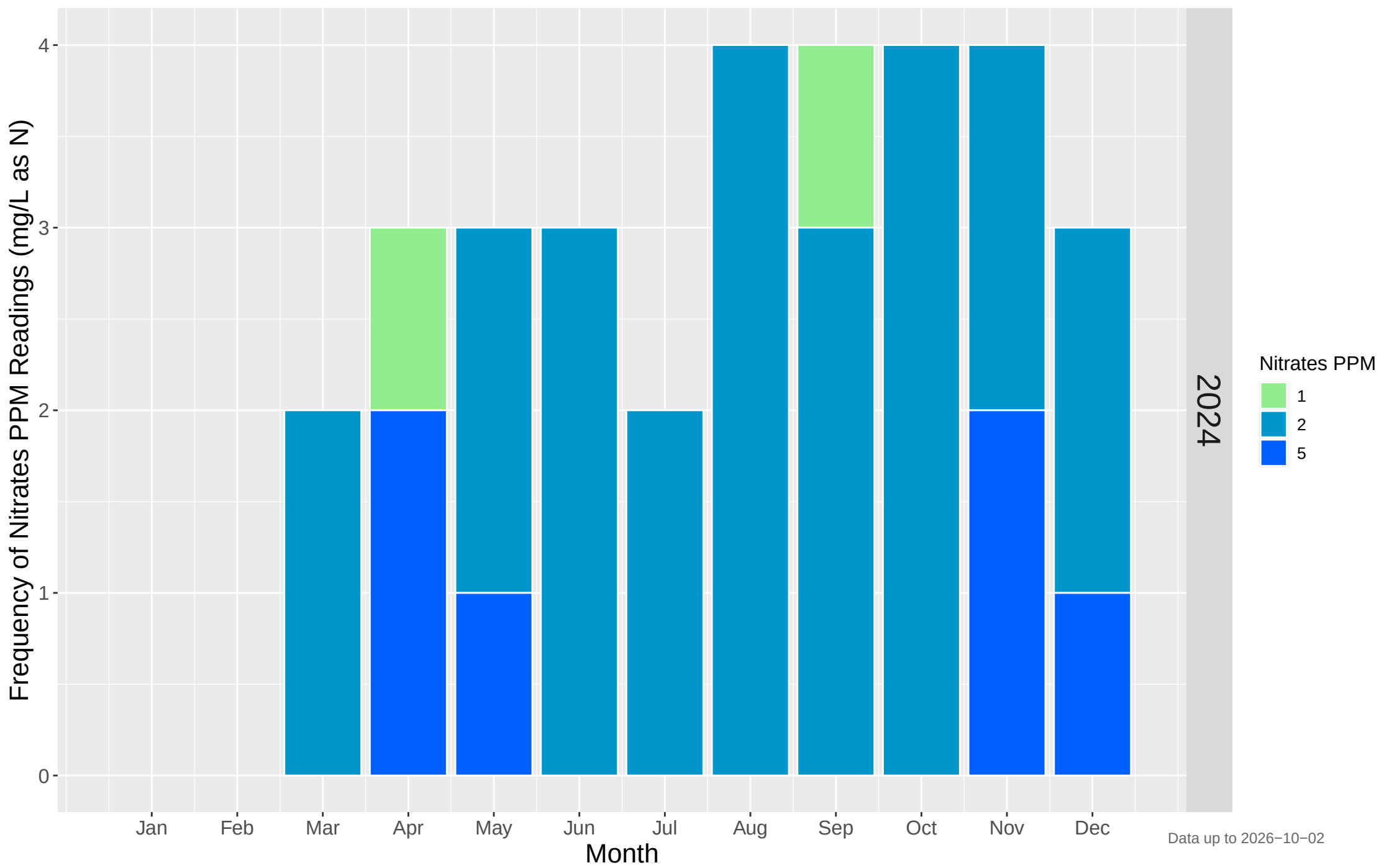
SafeAvon Phosphates – By Month

Stour River – Whichford – Barrats Hill



SafeAvon Nitrates By Month

Stour River – Whichford – Barrats Hill



Pairwise Testing Variables Relationships

Stour River – Whichford – Barrats Hill

phos

nitr

ec

temp

Corr:
0.003

Corr:
-0.214

Corr:
0.616***

phos

Corr:
0.214

Corr:
-0.240

nitr

Corr:
-0.227

ec

temp

Phosphate values are orthophosphate
Data up to 2026-10-02

Report Glossary & Interpretation Guide

Understanding the Charts

Pairwise Correlation Matrices

- . Valuation Scale (–1 to +1): Quantifies correlation between variables.
- (+1) Perfect Positive Correlation: Variables track each other; if one scales up, the other increases.
- (0) No Correlation: Variable movements appear independent.
- (–1) Perfect Negative Correlation: Variables track inversely; when one scales up, the other drops.
- . Practical Application: If a pair of variables have a correlation approaching 1, it demonstrates that typically on any given sample, these values are likely to be strongly correlated. This indicates they may share similar sources and/or similar ways of exiting out into the watercourse.

Ecological Threshold Frameworks

Phosphate Status (Orthophosphate, PO₄–)

- Monitored using Hanna pocket checker:
- . High Status: $x < 0.077$ PPM
 - . Good Ecological Status: $0.077 \leq x \leq 0.306$ PPM
 - . Moderate / Poor Ecological Status: $x > 0.306$ PPM

Nitrate Levels (Nitrate–as–N)

- Monitored using WaterWorks/Hach Nitrate kit:
- . Natural Levels: $x < 1.0$ PPM
 - . Elevated Levels: $1.0 \leq x < 5.0$ PPM
 - . Excessive Levels: $x \geq 5.0$ PPM

Data Access

Data pulled from EpiCollect API.
Full dataset accessible via SafeAvon website
which has links to EpiCollect and the Google Sheet.
URL: https://safeavon.org.uk/?page_id=151