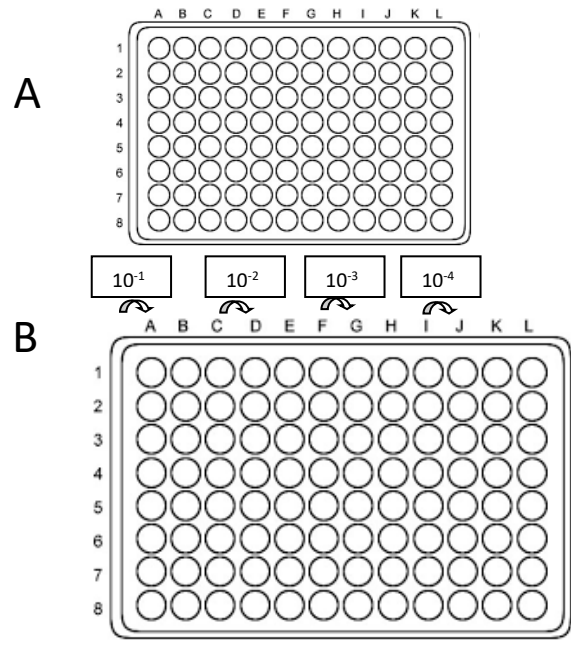
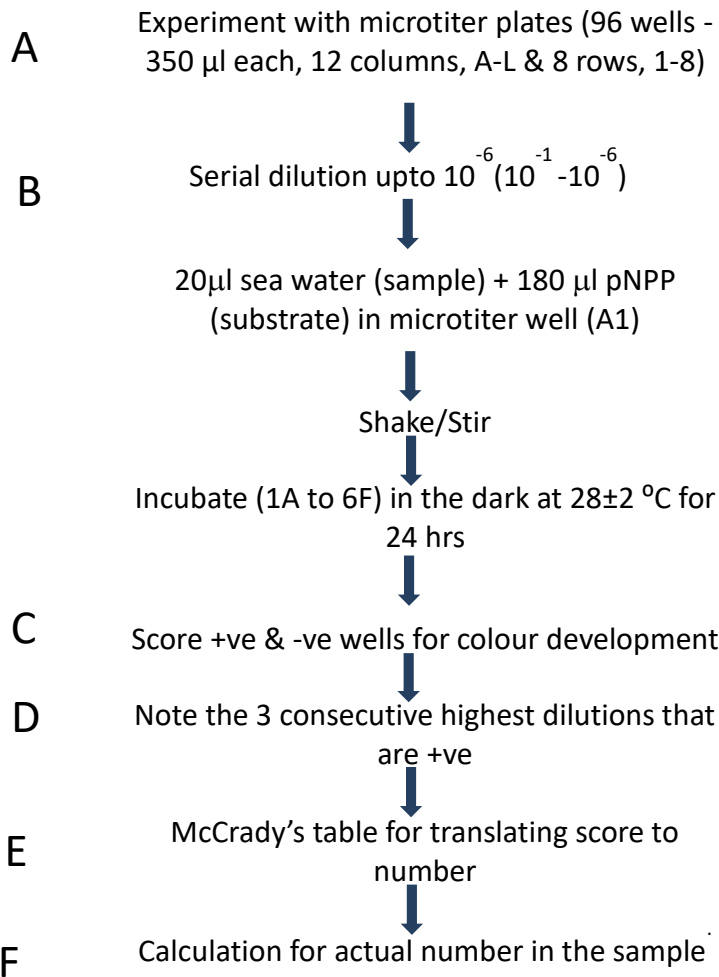


Table S1. Details of sample treatment

Treatment	Days	No. Depths	Time intervals	Replicates	Total n values	Remarks
1	5	4	4	3	240	Total number of observation including replicates
2	5	4	4	Avg. of triplicates	80	Whole water column for 5 days- physico-chemical and biological parameters
3	5	4	1	Avg. of 5 days	20	Each time interval-APA and relationships
4	1	4	4	Avg. of 5 days with time interval	16	Time and depth-APA and relationships



C & D

	A	B	C	D	E	F	G	H	I	J	K	L
1	0-1	10-1	10-1	10-2	10-2	10-2	10-3	10-3	10-3	10-4	10-4	10-4
2	0-1	10-1	10-1	10-2	10-2	10-2	10-3	10-3	10-3	10-4	10-4	10-4
3	0-1	10-1	10-1	10-2	10-2	10-2	10-3	10-3	10-3	10-4	10-4	10-4
4	0-5	10-5	10-5	10-6	10-6	10-6						
5	0-5	10-5	10-5	10-6	10-6	10-6						
6	0-5	10-5	10-5	10-6	10-6	10-6						
7												
8												

Ex:

Color development

Wells +ve

Therefore considering 10^2 reading

Reading from McCrady's table

Therefore the actual number in sample per litre

Therefore the actual number in original sample

$$10^1 \text{ to } 10^6$$

321, 301, 000

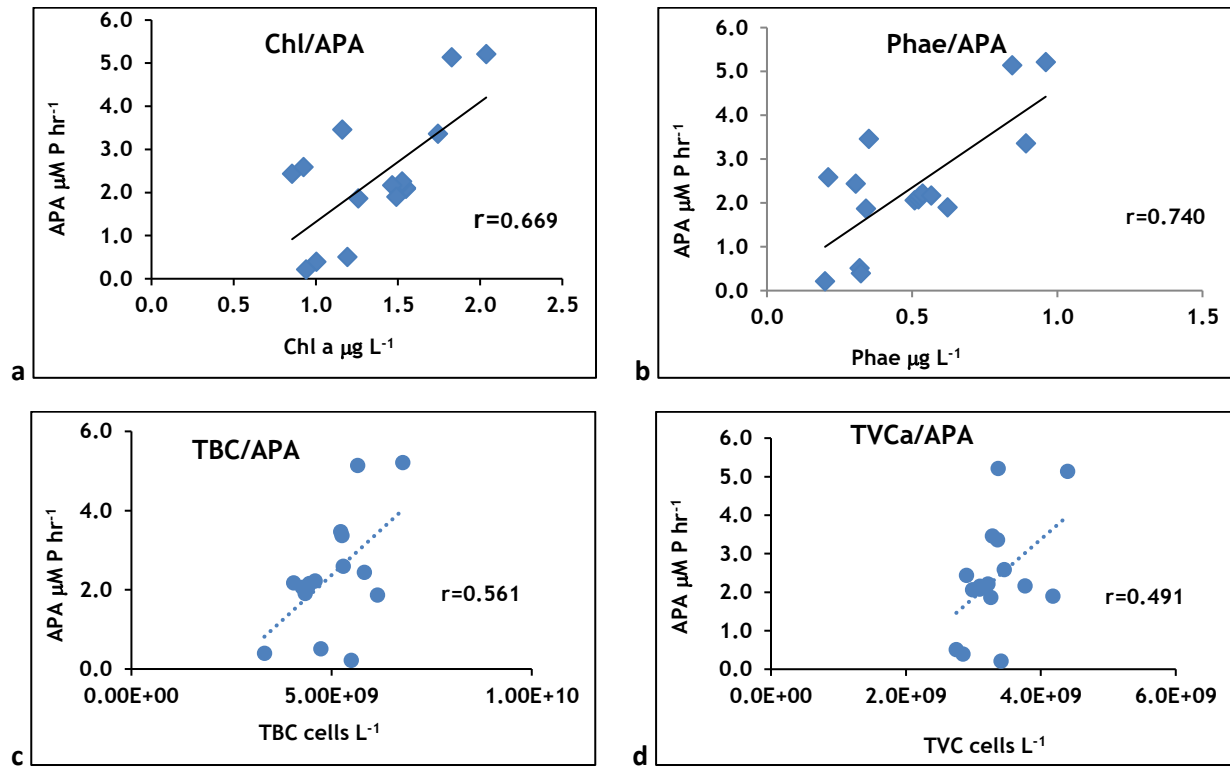
3-0-1,

11 at 10^2 cells/ml

11×10^5 cells/L

1.10×10^6 cells/L

Fig S1. Flow chart for determining Phosphatase Producing Bacteria-Most Probable Number (PPB-MPN, 3-well method) using Microtitre Plate.



**Fig S2. Scatter plots showing correlation of APA with biotic variables. a. Chlorophyll a
b. Phaeophytin c. TBC d. TVC in the whole time series (where $n=16$, each point is an average of 5 days).**