

## **Satellite chlorophyll concentration as an aid to understanding the dynamics of Indian oil sardine in the southeastern Arabian Sea**

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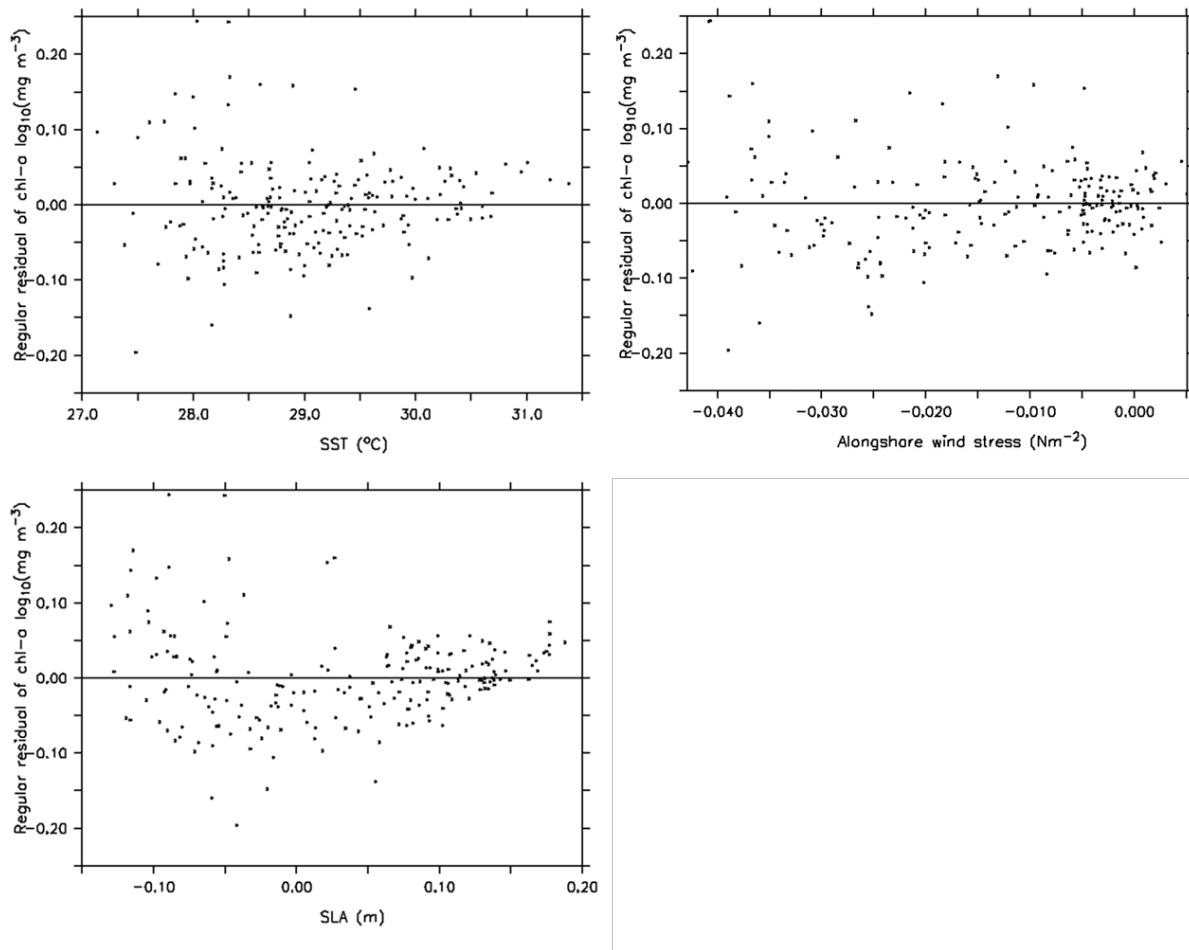


Fig. S1: Residual plots of monthly\_MLRA with chl-a ( $\log_{10} \text{ mg m}^{-3}$ ) as the dependent variable and the 3 significant physical parameters - SLA, alongshore wind and SSTas predictors for the period 1998 - 2014

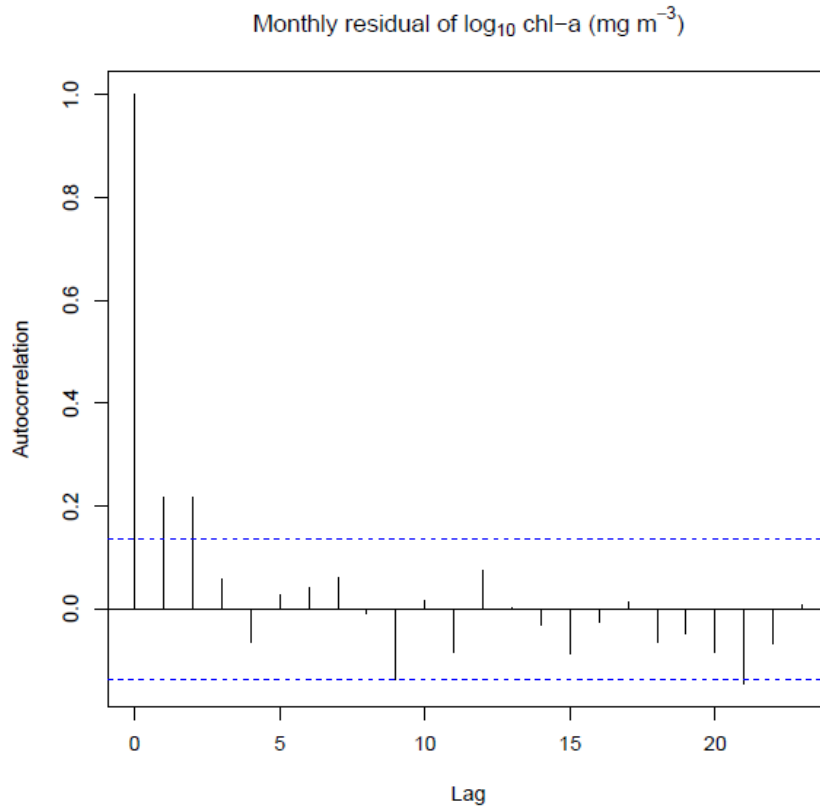


Fig. S2: The auto-correlation plot of modelled monthly chl-*a* values done using MLRA

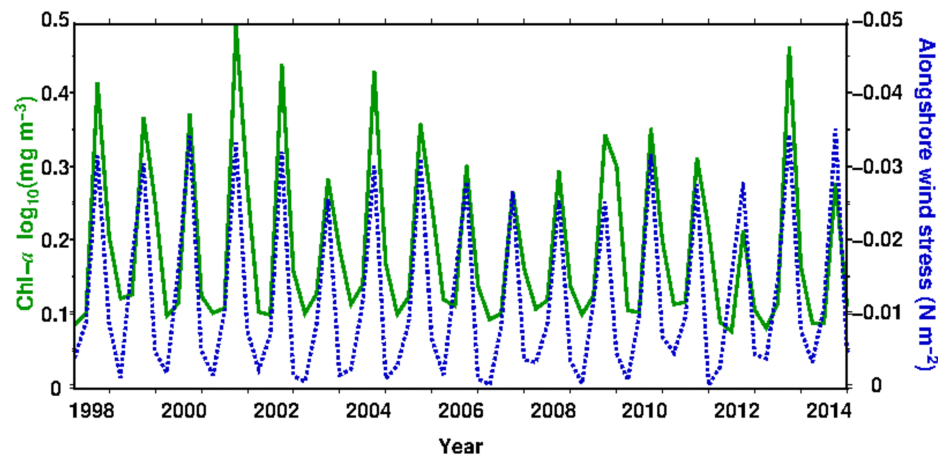


Fig. S3: Seasonal variability of chl-*a* concentration (plotted as  $\log_{10}$  chl-*a* in  $\text{mg m}^{-3}$ ) and Alongshore wind stress ( $\text{Nm}^{-1}$ ) in the SEAS during 1998 to 2014.

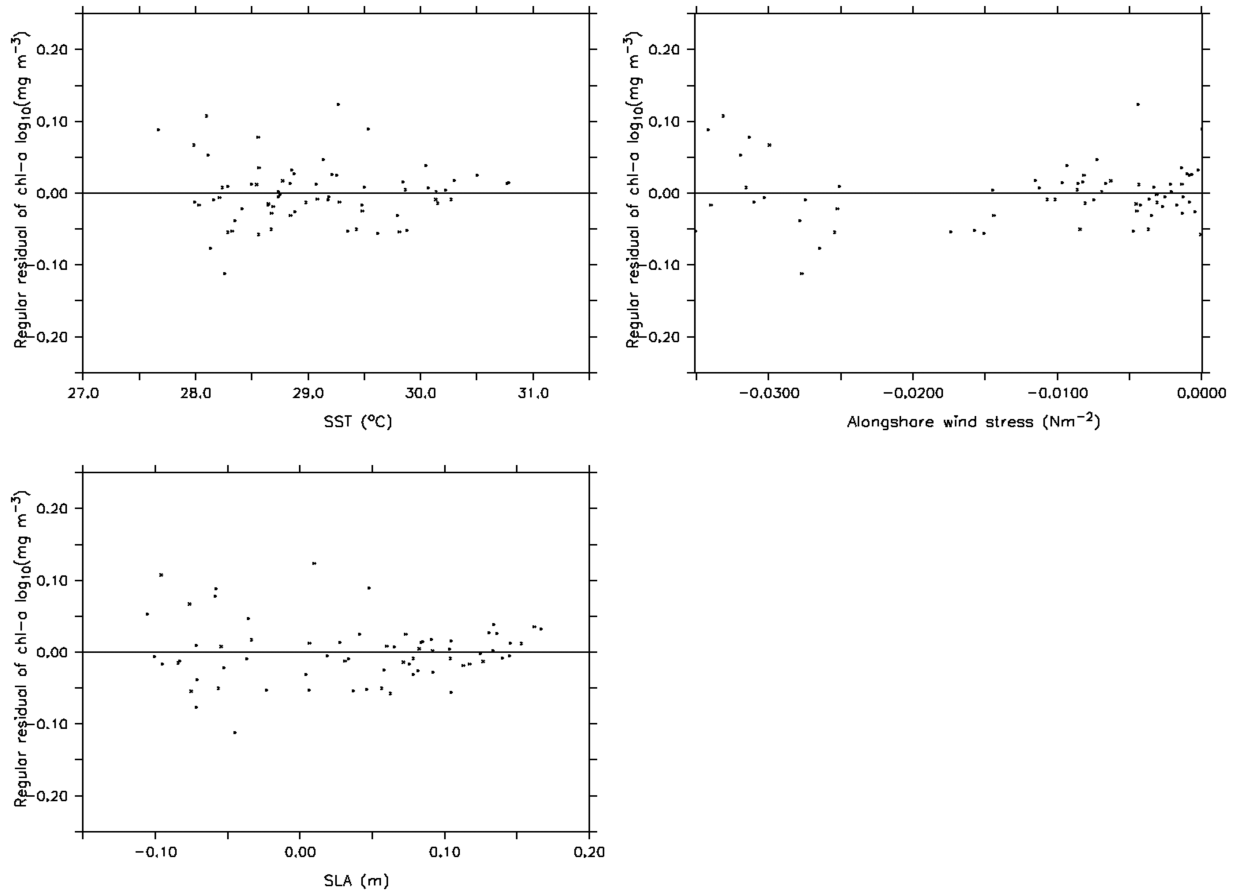


Fig. S4: Residual plots of seasonal MLRA with chl-*a* (log<sub>10</sub> mg m<sup>-3</sup>) as the predictand and the 3 significant physical parameters - SLA, alongshore wind and SST as predictors for the period 1998 - 2014.

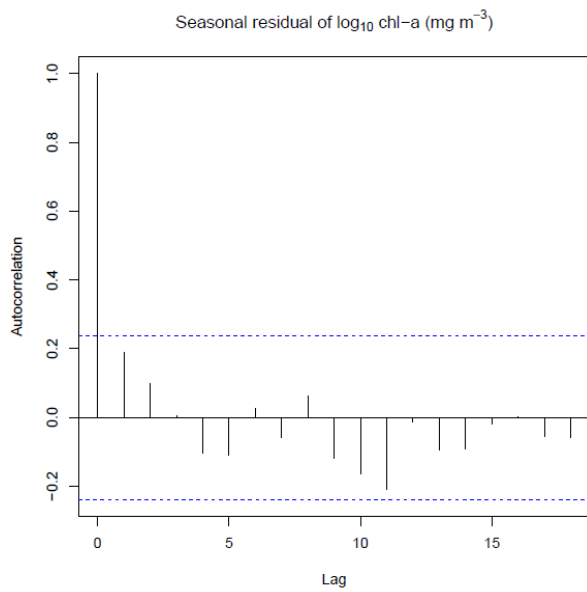


Fig. S5: The auto-correlation plot of modelled seasonal chl-*a* values done using MLRA

Table S1: Multiple Linear Regression analysis (standardized anomalies) with sardine landing as the predictand and 4 physical parameters - SLA, alongshore wind, SST, rain as well as chl-*a* as predictors, on a seasonal scale, for the period 1998 - 2014.

Predictor variable	Rank	Value/Standardized Reg. coefficient	Standard error	t-value	Prob> t	R-square	Adj. R-square
Alongshore wind stress	1	0.46572	0.19991	2.32964	0.02304*	0.16839	0.11559
SST	2	-0.33851	0.15467	-2.18862	0.03234*		
SLA	3	-0.25003	0.23827	-1.04933	0.29803		
Logchl- <i>a</i>	4	-0.15168	0.30355	-0.49971	0.61902		

\*p<0.05: statistically significant