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TITLE:

Temporal effect on the abundance and diversity of intertidal rocky shore macroalgae

Running title:

Temporal effect on macroalgal community

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20 **Abstract**

21 Temporal effect study on the abundance and diversity of intertidal rocky shore macroalgae
22 revealed that there are ~70 species in the intertidal rocky shore of Anjuna (60 species) and
23 Vagator (52 species). Results showed that pre-monsoon (May) and post-monsoon (December)
24 season favored high species richness and abundance in both the study sites. In both the cases,
25 species diversity was low during the monsoon months (July and August). Study showed that low
26 diversity might be a monsoonal effect and it coincides with the growth of *Ulva* and *Porphyra* sp.
27 The growth of opportunistic annuals bring about an ephemeral dominance of the macroalgal
28 community by annual macroalgae. The driver is believed to be the nutrient influx from surface
29 runoff, change in salinity and temperature due to high precipitation. Study showed that monsoon
30 could have a role on the macroalgal community dynamics, and there was a strong correlation
31 between diversity and biomass.

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33 **Keywords:** Anjuna, Biomass, Nutrient runoff, monsoon, Vagator

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