

## Distribution of *Synechococcus* and *Prochlorococcus* in Southeastern Coast of Peninsular Malaysia

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**Abstract :** Distribution of picophytoplankton from two genera, *Synechococcus* and *Prochlorococcus* at the surface water (0.5m) were observed from coastal to offshore area of the southeastern coast of Peninsular Malaysia, for a six day cruise in August 2014 during SouthWest monsoon. The picophytoplankton was divided into two different size fractions (0.7-2.7 $\mu$ m and <0.7  $\mu$ m) by filtering through GF/D (2.7  $\mu$ m) and GF/F (0.7  $\mu$ m) filter papers and counted by using flow cytometer. *Synechococcus* and *Prochlorococcus* contribute higher at 0.7-2.7 $\mu$ m size range (ca. 90% and 95%, respectively) compared to <0.7  $\mu$ m (ca. 10% and 5%, respectively). *Synechococcus* (>52%) dominated the total picophytoplankton compared to *Prochlorococcus* (<26%) for both size fractions in southeastern coast of Peninsular Malaysia. Total density (<2.7  $\mu$ m) of *Synechococcus* was ranging between 1.72 x10<sup>4</sup> and 12.57 x10<sup>4</sup> cells ml<sup>-1</sup>, while *Prochlorococcus* varied from 1.50 x10<sup>4</sup> to 8.62 x10<sup>4</sup>. Both *Synechococcus* and *Prochlorococcus* abundance showed a decreasing trend from coastal to offshore.

**Keywords :** Peninsular Malaysia, *prochlorococcus*, South China Sea, *synechococcus*

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