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**Current status and comparison of three coral reefs in Southern Sri Lanka: Madiha, Polhena and Dondra**

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Madiha, Polhena and Dondra are ecologically, economically and socioeconomically important coral reefs that are located along the Southern coast of Sri Lanka. They are highly vulnerable to human and natural environmental impacts and they are critically threatened. Estimation of their current status through regular monitoring is essential for the long term management of these threatened coral reefs. Line Intercept Transect method was used to evaluate percentage cover of benthic forms and Shannon-Weiner's index was used to compare the diversity. In each site, 16 replicate transects were randomly deployed across the reef. Length of each transect line was 30 m. Substrate cover percentages, water quality parameters such as temperature, pH, salinity and specific gravity were measured at each site during the field survey. The most dominant coral families found in all 3 sites were Acroporidae, Pocilloporidae, Faviidae and Poritidae. Highest live coral cover (46.73%) was recorded in Polhena while the highest dead coral cover (16.22%) was recorded in Madiha reef. Large amount of coral rubbles (11.48%) were observed in Polhena while other two sites possess relatively low amount of coral rubbles. Seaweeds (18.48%) were the prominent organism in Madiha reef while seagrasses (19.71%) were prominent in Dondra reef. *Montipora aequituberculata* (27.75%) was the most abundant coral species and *Halimeda* sp (55.49%) was the most abundant algae in all sites. The average value of pH, salinity and specific gravity of these sites were  $8.13 \pm 0.1$ ,  $35.03 \pm 0.3$ ,  $1.025 \pm 0.001$  respectively but they didn't show any significant difference between sites ( $P > 0.05$ ). There was a significant difference ( $P < 0.05$ ) in Temperature. The average depth in Dondra reef was the highest ( $1.59 \pm 0.55$ ) while Polhena reef showed the lowest ( $1.39 \pm 0.78$ ). Main anthropogenic impacts at Dondra, Polhena and Madiha were fish offal discarding in dry-fish processing, coral trampling and coconut husk pits respectively. Polhena reef showed the highest Shannon-Weiner diversity (1.37) while the lowest diversity (0.94) was found in Dondra reef.  
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