ABSTRAK

Kepulauan Derawan memiliki potensi ekosistem terumbu karang yang merupakan tempat untuk *spawning ground*, *nursery ground* dan *feeding ground*. Terjadi penurunan %tutupan karang oleh adanya faktor alami dan antropogenik. Salah satu upaya restorasi biologis dengan rekrutmen karang. Kajian penelitian ini bertujuan untuk mengetahui kepadatan dan *Lifeform* rekrutmen karang, persentase tutupan karang, dan hubungan antara rekrutmen karang dengan tutupan karang. Metode yang digunakan adalah *Purposive sampling*. Kepadatan rekrutmen karang dan %tutupan karang (*Underwater Photo Transect* (UPT)) yang selanjutnya diolah menggunakan *Count with Excel extension* (CPCe), dikelompokkan dalam 3 kelas ukuran yaitu kecil (<3cm), sedang (3-6 cm) sampai besar (>6 cm dan 10 cm). Hubungan dianalisis menggunakan analisis regresi dan korelasi pearson. Kepadatan terumbu karang 1,41 – 3,13 ind/m^2 (kategori rendah); persentase tutupan karang 12,8% - 45,93% (kategori buruk-sedang); dan hubungan antara kepadatan rekrutmen karang (ukuran sedang) dengan tutupan karang y= -28,96x+55,07, R^2 =0,673, r = -0,82, Sig. N (0,002 <0,01). Hasil menunjukan korelasi kuat dan adanya hubungan yang berkebalikan antara rekrutmen karang dengan %tutupan karang. Kajian ini dapat digunakan untuk upaya restorasi biologis ekosistem terumbu secara berkelanjutan.

Kata Kunci: *Terumbu karang, Rekrutmen karang, Kepulauan Derawan, UPT, CPCe*

ABSTRACT

Derawan islands has a potential coral reef ecosystem which place for *spawning ground, nursery ground* and *feeding ground*. There is a decrease of coral cover percentage by natural and antropogenic factors. One of the restoration efforts is coral recruitment. The purpose of this research was to know density and lifeform coral recruitment, percentage coral cover and the relationship between coral recruitment and percentage coral cover. The method was used the *Purposive sampling* method. Density coral recruitment and percentage coral cover (*Underwater Photo Transect* (UPT)) which is then processed using *Count with Excel extension* (CPCe), grouped into 3 classes: Small (<3 cm), Medium (3-6 cm), and Large (> 6 cm and 10 cm ≤). The relationship were analyzed using regression and correlation pearson analysis. Density of coral recruitment is 1,41 – 3,13 ind/m² (low category). Percentage coral cover is 12,8 - 45,93% (Poor to Medium category). The relationship between the coral recruitment (medium category) and percentage coral cover is y = -28,96x + 55,07, (R²)=0,673, r = -0,82, Sig. N (0,002 <0,01). The result was shows the strong correlation and there opposite relationship between coral recruitment and percentage coral cover. This research can be used for sustainable ecological restoration of coral reef ecosystems management.

Key words: *Coral reef, Coral recruitment, Derawan Islands, UPT, CPCe*