

RINGKASAN

SAMSUDIN. Laju Pertumbuhan Karang *Acropora pulchra* (Brook, 1891) yang Ditransplantasi dengan Metode Berbeda di Perairan Bintang Kepulauan Riau. Dibimbing oleh DEDY KURNIAWAN dan TRI APRIADI

Desa Teluk Bakau merupakan daerah dengan mayoritas penduduk bekerja sebagai nelayan. Di Desa Teluk Bakau juga terdapat beberapa lokasi pariwisata. Kondisi tersebut menjadikan Desa Teluk Bakau merupakan jalur lalu lintas kapal nelayan, penangkapan ikan, dan kegiatan pariwisata yang dapat memengaruhi kondisi alami terumbu karang. Tujuan penelitian untuk mengetahui pertumbuhan mutlak, laju pertumbuhan, dan tingkat kelangsungan hidup karang *Acropora pulchra* yang ditransplantasi dengan metode berbeda di Perairan Bintang Kepulauan Riau. Penelitian ini dilakukan pada bulan September sampai bulan Desember 2023 di Perairan Desa Teluk Bakau, Kabupaten Bintan, Provinsi Kepulauan Riau. Media transplantasi karang menggunakan substrat karang mati, substrat semen, dan substrat botol kaca. Setiap substrat terdiri dari 5 sampel karang sebagai ulangan. Pengamatan karang dilakukan setiap 7 hari sekali, dengan memonitoring pertumbuhan, tingkat kelangsungan hidup, serta pembersihan pada media dan sampel karang. Berdasarkan hasil penelitian selama tiga bulan pengamatan didapatkan rata-rata pertumbuhan mutlak karang dengan media substrat karang mati sebesar 1,90 cm, media substrat semen sebesar 1,68 cm, dan media substrat botol kaca sebesar 1,63 cm. Laju pertumbuhan karang menggunakan media substrat karang mati sebesar 0,63 cm/bulan, media substrat semen sebesar 0,56 cm/bulan, dan media substrat botol kaca sebesar 0,54 cm/bulan. Tingkat kelangsungan hidup karang dengan media substrat karang mati sebesar 100%, media substrat semen dan media substrat botol kaca sebesar 80%.

Kata kunci: *Acropora pulchra*, Karang, Pertumbuhan, Pulau Bintan, Transplantasi

SUMMARY

SAMSUDIN. Growth Rate of Coral *Acropora pulchra* (Brook, 1891) Transplanted with Different Methods in Bintan Waters, Riau Islands. Supervised by DEDY KURNIAWAN and TRI APRIADI

Teluk Bakau Village is an area where the majority of the population works as fishermen. There are also several tourism sites in Teluk Bakau Village. These conditions make Teluk Bakau Village a traffic lane for fishing boats, fishing, and tourism activities that can affect the natural conditions of coral reefs. The purpose of this study was to determine the absolute growth, growth rate, and survival rate of *Acropora pulchra* corals transplanted with different methods in Bintan Waters, Riau Islands. This research was conducted from September to December 2023 in the waters of Teluk Bakau Village, Bintan Regency, Riau Islands Province. Coral transplantation media used dead coral substrate, cement substrate, and glass bottle substrate, each substrate consisted of 5 coral samples as replicates. Coral observations were conducted every 7 days, by monitoring growth, survival rate, and cleaning of the substrate and coral samples. Based on the results of the study during three months of observation, the average absolute growth of corals with dead coral substrate media was 1.90 cm, cement substrate media was 1.68 cm, and glass bottle substrate media was 1.63 cm. The growth rate of corals using dead coral substrate media was 0.63 cm/month, cement substrate media was 0.56 cm/month, and glass bottle substrate media was 0.54 cm/month. The survival rate of corals with dead coral substrate media was 100%, cement substrate media and glass bottle substrate media was 80%.

Keywords: *Acropora pulchra*, Bintan Island, Coral, Growth, Transplantation