

## RINGKASAN

**Fitra Tri Suspa. K2B 005 106.** Pengaruh Penambahan Oksigen dan Probiotik terhadap Kelulushidupan dan Pertumbuhan Larva Kerapu Sunu Bintik Halus (*Plectropomus leopardus*) Stadia D1-D15 (Sri Hastuti dan Sri Rejeki)

Budidaya kerapu sunu (*Plectropomus leopardus*) hingga saat ini belum menunjukkan hasil yang memuaskan. Kendala yang dihadapi terutama terjadi pada stadia awal. Salah satu faktor yang berperan adalah lingkungan pemeliharaan. Oksigen terlarut dan probiotik diduga mempunyai peranan penting dalam pertumbuhan dan kelulushidupan larva.

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan oksigen dan probiotik terhadap kelulushidupan dan pertumbuhan larva kerapu sunu (*P. leopardus*) stadia D1-D15. Penelitian ini dilaksanakan pada bulan agustus hingga desember 2009, bertempat di Balai Besar Riset Perikanan Budidaya Laut Gondol, Bali.

Penelitian ini menggunakan metode eksperimen dengan Rancangan Acak Lengkap (RAL) dengan 4 perlakuan dan 3 ulangan yaitu perlakuan A (probiotik 500 mg/l dan oksigen 1,67 kg/cm<sup>2</sup>), B (oksigen 1,67 kg/cm<sup>2</sup>), C (probiotik 500 mg/l), D (tanpa penambahan oksigen dan probiotik). Materi yang digunakan adalah larva kerapu sunu sebanyak 4000 ekor/bak. Data yang diambil adalah data kelulushidupan, pertumbuhan panjang larva, konsumsi oksigen larva, konsumsi pakan larva, kandungan amonia dan nitrit. Data tersebut dianalisa ragam, untuk mengetahui pengaruh perbedaan antar perlakuan dilakukan uji Wilayah Ganda Duncan. Sedangkan data kualitas air dianalisa secara deskriptif.

Hasil penelitian menunjukkan bahwa penambahan oksigen dan probiotik tidak berpengaruh nyata ( $P > 0,05$ ) terhadap kelulushidupan, kandungan amonia, kandungan nitrit, dan konsumsi pakan. Namun berpengaruh nyata terhadap pertumbuhan panjang dan konsumsi oksigen. Nilai pertumbuhan panjang tertinggi A (8,51 mm), selanjutnya perlakuan C (8,04 mm), dan perlakuan B (8,01 mm), serta terakhir perlakuan D (7,54 mm). Konsumsi oksigen tertinggi perlakuan A (0,092 mgO<sub>2</sub>/jam/ind), kemudian B (0,067 mgO<sub>2</sub>/jam/ind), disusul oleh perlakuan C (0,053 mgO<sub>2</sub>/jam/ind) dan terakhir perlakuan D (0,033 mgO<sub>2</sub>/jam/ind). Kualitas air selama penelitian layak untuk pemeliharaan larva kerapu sunu (*P. leopardus*).

**Kata Kunci :** Kerapu sunu, Oksigen, Probiotik, Kelulushidupan, Pertumbuhan, Konsumsi oksigen, Konsumsi pakan, Amonia dan Nitrit.

## SUMMARY

**Fitra Tri Suspa. K2B 005 106.** The Influence of Oxygen and Probiotic addition to Survival Rate and Growth of Larvae Soft Spotted Sunu Grouper (*Plectropomus leopardus*) stadium D1-D15 (Sri Hastuti and Sri Rejeki)

Cultivation Sunu grouper (*Plectropomus leopardus*) to date have not shown satisfactory results. Constraints faced mainly occurred in the early stadia. One contributing factor is the maintenance environment. Dissolved oxygen and probiotic allegedly has an important role in the growth and kelulushidupan larvae.

This study aims to determine the effect of oxygen and the addition of probiotics to survival rate and growth of larvae Sunu grouper (*P.leopardus*) stadium D1-D15. The study was conducted in August until December 2009, held at Central Aquaculture Research Gondol Sea, Bali.

This research uses experimental methods to the Complete Random Design (CRD) with 4 treatments and 3 replications of treatment A (probiotic 500 mg/l and oxygen 1,67 kg/cm<sup>2</sup>), B (1,67 kg/cm<sup>2</sup> oxygen), C (probiotic 500 mg/l), D (without the addition of oxygen and probiotics). The material used is the larvae of the grouper Sunu 4000 tail/tub. The data is taken Survival rate data, long-larve growth, oxygen consumption of larvae, the larvae feed consumption, ammonia and nitrite content. The data were analyzed range, to determine the effect of differences between the treatment performed Duncan's test doubles Region. Meanwhile, water quality data were analyzed descriptively.

The results showed that the addition of oxygen and probiotic no real effect ( $P>0,05$ ) against survival rate, ammonia content, nitrite content, and feed consumption. But the real effect of the long growth and oxygen consumption. The highest length growth rate A (8,51 mm), subsequent treatment C (8,04 mm), and treatment B (8,01 mm), and the last treatment D (7,54 mm). The highest oxygen consumption treatment A (0,092 mgO<sub>2</sub>/jam/ind), then B (0,067 mgO<sub>2</sub>/jam/ind), followed by treatment C (0,053 mgO<sub>2</sub>/jam/ind) and last treatment D (0,033 mgO<sub>2</sub>/jam/ind). Water quality during the study for the maintenance of decent grouper larvae Sunu (*P. leopardus*).

**Keywords:** Grouper Sunu, Oxygen, Probiotics, Kelulushidupan, Growth, oxygen consumption, feed consumption, Ammonia and Nitrite.