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Application Of Lights in The Nursery of Snubnose Pompano *Trachinotus blochii* (Lacepède, 1801) In Ponds as An Effort to Increase Feed Cost Efficiency

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Abstract

The snubnose pompano (*Trachinotus blochii*) is currently in increasing demand, both for the domestic market and international markets such as Singapore, Taiwan, Hong Kong, and China. The snubnose pompano can be cultivated in ponds because it is tolerant to changes in salinity (5-40 ppt). In this study, the use of lights installed in cages to maintain the snubnose pompano nursery will respond to positively phototactic live feeds (zooplankton, shrimp, and small fish) which will gather at night. It is hoped that the use of these alternative feed sources can increase feed efficiency. The urgency of this research is to determine efforts to save on the use of artificial feed and suppress parasite attacks. A t-test was carried out to compare the averages of two different samples on the growth rate and health of snubnose pompano fish. The research resulted in optimum growth of snubnose pompano with a 100% survival rate, feed conversion ratio (FCR) value of 0.9, and produced snubnose pompano size 80–100 g/head within two months as well as healthy fish seeds. Parasitic attacks are lower than the treatment without light with a prevalence value of 25% (with lights); a range of 25%-75% (without lights) an intensity of 6-8 (with lights); a range of 11-35.67 (without light). The snubnose pompano seeds are always actively moving when the light is on and can effectively catch organisms such as small shrimp or small crustaceans (as observed in the stomach contents and intestines of the snubnose pompano). The light also indicates that parasitic attacks on the snubnose pompano are less common.

INTRODUCTION

The snubnose pompano (*Trachinotus blochii*) is a newly introduced mariculture fish. Nonetheless, the demand for this fish continues to increase, especially from international markets such as Singapore, Taiwan, Hong Kong, and China (Arrokhman *et al*., 2012). Likewise, for the local market, especially in Jakarta with its relatively high prices, this opens great opportunities to increase production, especially for cultivators in buffer areas such as the Kepulauan Seribu, Lampung, and Karawang (Wahyudi *et al*., 2016).

So far, snubnose pompano cultivation in Indonesia, especially during the enlargement stage, is still carried out at sea using a floating net cage system (Arrokhman *et al*., 2012). Due to the many problems associated with mariculture, such as bad weather at sea, difficult transportation, the risk of drifting cages, and high transportation costs, the Karawang BLUPPB began producing snubnose pompano in ponds using floating nets. The cage system has been installed since 2011 (Wahyudi *et al*., 2016). The ability of snubnose pompano to adapt to a high range of media salinity (5–40 ppt) allows this commodity to be reared in ponds (Jayakumar *et al*., 2013).

In aquaculture activities, feed is the most significant part of operational costs in aquaculture systems fed artificial feed (Tincy *et al*., 2011). In addition, the high protein content of marine fish feed (> 37%) causes the price of this commodity feed to rise and become more expensive. Therefore, efforts are needed to reduce production costs due to the high price of artificial feed (Price and Egna, 2014). On the other hand, the impact of aquaculture activities results in hypernutrition, which impacts the primary productivity of wetlands (Shelton, 2006). An increase in primary productivity is usually followed by an increase in the abundance of other organisms at a higher trophic level. Therefore, these organisms need to be used as alternative feed in marine fish farming with cage systems to conserve artificial feed. One thing that can be done to take advantage of these organisms (zooplankton, small fish, and wild shrimp) is to collect them in nets using lights. This is based on the positive phototaxis of these organisms to light. This principle is based on the use of lights by fishermen to catch fish at night (Mulyawan *et al*., 2015). The use of lights to utilize organisms outside of cages to cultivate organisms was reported by ACRDP (2013) and McConnell *et al*. (2010).

The use of lights in the sun-fed snubnose pompano cages will be investigated in this study. The goal is to collect zooplankton organisms, shrimp, and small fish around the lights. It is hoped that this organism can be used as an alternative feed for snubnose pompano fingerlings to increase feed efficiency. This research is to provide an overview of the design of using lights as an alternative feed collection tool on the growth performance and health aspects of snubnose pompano in the nursery phase in ponds with floating cage systems. This study aimed to see how the lighting design in the snubnose pompano nursery affects growth and health performance.

METHODOLOGY

Ethical Approval

There are no animals harmed or improperly treated during this research. The test animals in this research were treated properly according to the optimal environment, both physical and chemical oceanographic parameters. And approved during the proposal seminar and research results seminar at the Marine and Fisheries Polytechnic of Karawang.

Place and Time

This research was conducted in March 2022 at the nursery and rearing test location using the same pond, Block A1 Pond, in the Karawang Aquaculture Production Business Service Center area. Fish health tests were carried out in the fish pest and disease laboratory; water quality tests in situ and ex-situ in the environmental laboratory; and feed proximity tests in the nutrition laboratory. All laboratory tests are conducted under the auspices of

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BLUPPB Karawang. This sub-chapter describes the specific time and place of the study. The design method used in this work package activity is an experiment on a field scale by testing the use of lights in the floating cages of the snubnose pompano nursery phase. Two plots of floating cages were illuminated, while two other plots were not. To prevent disease, snubnose pompano seeds are treated by soaking them in fresh water for 5 minutes every 2 weeks.

Research Materials

The tools and materials used in the snubnose pompano nursery activities are shown in Table 1.

Table 1. Tools and materials used in snubnose pompano nursery activities.

No	Tool and Materials	Number of Unit
1	Pond size 100 × 50 × 1.5 m^3	1 unit
2	Floating net cages measuring 2.5 × 2.5 × 1.5 m3; mesh size ¾ mm	10 units
3	Scoope net	2 pieces
4	Raincoats	2 units
5	Flashlights	1 Unit
6	Feed containers	6 pieces
7	Polyethylene rope size 1 and 2 mm	50 Meters
8	Serving lid	4 pieces
9	Feed buckets	6 pieces
10	Bamboo	2 Pieces
11	Two-digit analytical balance	1 Unit
12	Hanging scales	1 unit
13	Green Waring	10 Meters
14	Styrofoam	1 Unit
15	Dipper	1 Piece
16	Stationery	1 Package
17	Cameras	1 Unit
18	Calculator	1 Unit
19	5-watt yellow light bulbs	2 Pieces
20	Tissues	1 pack
21	8-inch submerchible pump	1 Unit
22	Electrical equipment	1 Package
23	Wheels	2 Units
24	Freshwater	1 Package
25	Water and soil quality analysis tools	1 Package
26	Fish health check kit	1 Package
27	Hapa size 2 × 1 × 1.5 m^3	1 unit
28	Steamers	1 Unit
29	Ruler	1 Piece
30	snubnose pompano (8-9 g, 7.7 – 7.9 cm)	5000
31	Commercial pellet sizes 2, 3, 4 and 5 mm	500 Kg

Research Design

Snubnose pompano nursery consists of 2 activities, namely: (1) study of the effectiveness of light on the growth performance of snubnose pompano; and (2) study of the effectiveness of light on fish health and the environment. This test involves two activities by engineering staff that work in synergy to achieve the expected goals. The two nursery activities use the exact location, test fish, and treatment. The difference between these two activities lies in discussing the test parameters.

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Work Procedure

Land Preparation

The land used in this test is a pond measuring 100 × 50 × 1.5 m, equipped with an inlet and outlet system. Pond reparation begins with drying for three days and taking subgrade soil to be tested at the BLUPPB environmental laboratory. The importance of soil quality analysis will determine the feasibility and treatment of soil or environmental media. The next stage is checking the floating net cages to place the cage nets according to the treatment. The floating net cages used are made of modified polyvinyl chloride (PVC) pipe. Each cage box for testing treatment uses a lamp equipped with a yellow light bulb with a power of 5 watts. The lamp is placed in the middle of the cage box, 20 cm from the water surface. Activation of the lights is done by installing electrical installations with the help of an on-off system switch.

Preparation of Cultivation Media

Preparation of the cultivation medium begins with pouring 1.2 m of water into the pond. The water comes from seawater channels, pumped and deposited in reservoir ponds. The process of entering water into the test pond is through an inlet pipe connected to the reservoir pond and with the help of an 8-inch submersible pump. Next is the installation of floating net cages. The floating nets used were 2.5×2.5×1.5 m^3 with a mesh size of 0.75 and 0.5 mm and were installed in each cage box. Each corner of the floating net cage is equipped with a PE rope with a diameter of 1 mm, which ties the floating net cage to the PVC pipe of the floating cage. Furthermore, the floating nets were given weights made of plastic pipe with an area smaller than the size of the PVC pipe. The next stage was the installation of two water wheel units, placed in the pond area to supply oxygen for the test fish. The wheel operation for day and night is one and two units, respectively.

Test the Fish

The test fish in this activity was the snubnose pompano from the Lombok Marine Cultivation Center hatchery unit, which had been adapted to artificial and environmental feed and had gone through the one nursery stage at BLUPPB Karawang. Seeds resulting from one nursery are selected based on size to obtain uniformity and good fish performance or follow qualitative requirements, namely: whole body parts, no visible deformities, or defects, healthy and free of viruses, bacteria, fungi, and parasites, swimming movements that are normal and tend to cluster, and active response to the feed given. The size range of seeds from nursery one used as the average initial weight in nursery test II was 8–9 g/head with a length range of 7.7–7.9 cm. Then the seeds were counted and transferred to floating nets with a density of 600 fish per net, or 87 fish per m^3. Counting and spreading the seeds is done in the morning when the water temperature is not too high. This is done to avoid stress and the death of the fish.

Test Treatment

The treatments used in this test included using a light bulb with a yellow glow and a power of 5 watts and the treatment without a light bulb (the control). Each treatment was repeated twice. The activation of the bulb starts at 19:00 until 00:00 WIB or a lighting duration of 5 hours at night. The test fish were reared for two months and fed commercial pellet feed with diameters of 2, 3, 4, and 5 mm and a protein content of 38%. The feed dose is given as much as 5% of the total biomass per day with a frequency of feeding four times daily, namely at 07.00, 10.00, 14.30, and 17.00 WIB. To calculate the increase in weight and length, sampling was carried out every 7 days by randomly taking 10% of the fish population from each treatment and replication. Next, 10–20 fish that have been weighed are

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taken back, and the weight and length of individual fish are measured.

Weight measurement uses an analytical scale with two-digit accuracy, while length measurement uses a ruler. Measurements are taken slowly to avoid injury and stressing the fish. As supporting data in testing the effectiveness of the lamp (bulb) on the performance of snubnose pompano, one fish gut dissection was performed for each treatment and replicated every 14 days. The fish were dissected at night between 20.00 and 21.00 WIB. The dissection aims to determine the type of natural food that the test fish can utilize at night. Using scissors, the surgery begins at the operculum and proceeds to the circular vertebrae, dorsal fin, linea lateralis, lower part of the anal fin, and pelvic fins. Furthermore, stomach and intestinal surgery were carried out, and observations were made of the type of tissue in the organ that had been dissected.

Management of Fish Health and the Environment

Fish health management is carried out by monitoring visually at the time of feeding and by examining fish samples every 14 days by randomly taking 2 fish from each treatment and repeating them for further analysis. The observation of fish samples was carried out macroscopically and microscopically. The sample macroscopically can be identified by looking directly at the type of parasite found in the test fish, microscopic observation is made by taking parts of the body's mucus and gills. Examination of mucus is done by scraping the fish's skin from head to tail with a scalpel to obtain mucus (mucous fluid). Then the mucus is placed on an object glass dripped with distilled water, covered with a cover glass, and observed under a microscope. The gills were examined by cutting them using scissors and then placing them in a petri dish that had been given distilled water and observed under a microscope. Environmental management is carried out by changing water every 3–5 days or when the water quality value is below the reference threshold for cultivation. Water quality values are measured periodically every week, including temperature, dissolved oxygen, salinity, pH, ammonia, and nitrite.

Parameters

Growth Performance

During the test, the test fish samples were measured every 7 days to determine the Specific Growth Rate (SGR). The obtained data were tabulated in Microsoft Excel and then calculated as follows using the equation in Lugert *et al.* (2016), Panase, and Mengumphan (2015):

$$SGR = \frac{Ln(W_t) - Ln(W_0)}{t} x100$$

Information:
SGR : Specific Growth Rate (%/day)
W_t : Average individual weight at the end of the experiment (g)
W_0 : Average individual weight at the start of the experiment (g)
t : Trial time (days)

The SR value data is known by recording the number of test fish at the stocking time and the number of test fish remaining at the end of the test. Survival rates were calculated using the Lugert *et al.* equation. (2016); Panase and Mengumphan (2015):

$$SR = \frac{N_t}{N_0} x100$$

Information:
SR : Percentage of fish that survive.
N_t : Total number of fish (heads) at the end of the test
N_0 : Number of fish (heads) at the start of the test.

FCR is used to calculate the body weight of a fish based on the amount of feed expended or consumed by the fish. FCR is calculated based on the formula in the paper by Lugert *et al.* (2016); and Panase and Mengumphan (2015):

$$FCR = \frac{\Delta W}{\sum P}$$

Information:
FCR : Feed conversion ratio
ΣP : Amount of feed consumed (kg)

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W : Weight difference between final and initial weights after death (kg)

The stomach and intestines contents were observed by capturing samples of snubnose pompano fish at night when they were actively eating, both with and without lights. Next, the snubnose pompano sample was dissected into its stomach contents to observe the contents of its stomach.

Fish Health and Environment

The test parameters used to determine the health status of fish can be carried out through observation of clinical symptoms as well as microscopic, bacteriological, and virological examination of pathogenic bodies (parasites, fungi, viruses, and bacteria) routinely in fish health laboratories. Meanwhile, the parameters of the cultivation environment can be identified by taking water samples for further analysis of the suitability parameters of water quality. Parameters of fish and environmental health status are described below.

Prevalence is the percentage of infected fish in a population, while intensity is the estimated number of parasites in infected fish. Parasite prevalence and intensity were calculated using the formula in the papers by Ihwan *et al*. (2015) and Muchlisin *et al*. (2014).

$$\text{Prevalence} = \frac{\text{number of parasite} - \text{infected fish}}{\text{total number of samples}} \text{ x } 100\%$$

$$\text{Intensity} = \frac{\text{total number of parasites found}}{\text{number of infected fish}}$$

Water quality values are needed to determine the feasibility of cultivation media water. Water quality parameters tested included temperature, dissolved oxygen, salinity, pH, nitrite, and ammonia. Water quality measurement is carried out by immersing a parameter measuring device in the culture water column, a thermometer for temperature, a pH meter for pH, a DO meter for dissolved oxygen, and a refractometer for salinity. Measurements for the parameters ammonia and nitrite were carried out by placing water samples in a 300-ml sample container or bottle for further analysis at the environmental laboratory, BLUPPB Karawang.

Data Analysis

Growth performance parameters (specific growth rate, survival rate, and feed conversion ratio) were statistically analyzed in nursery engineering activities, while data on fish stomach contents, fish health status, and environmental values were descriptively and exploratorily analyzed. The quantitative data obtained was tabulated with the Excel program, and then, if it had a normal distribution, a student t-test was carried out to find out the difference between the use of lights and without the use of lights. It was carried out to compare the averages of two different samples, namely the effects of using lights and not using lights on the growth rate and health of snubnose pompano fish.

RESULTS AND DISCUSSION

The effectiveness of Light on Growth Performance

The results of the activity of using lights for artificial lighting in the process of cultivating the snubnose pompano can be seen in the image below. In Figure 1, the installation of lights above floating cages causes the snubnose pompano to gather under the lights with very active movements. According to Marchesan *et al*. (2005), the common reaction of fish groups when there is artificial lighting is to avoid or approach the light source. Functional explanations for such reactions include predator avoidance and increased feeding efficiency.

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Figure 1. The use of lights in the process of nursery activities for *Trachinotus blochii*

In many cases, fish attracted to strong light have diurnal habits, with their natural food types being mollusks and crustaceans, including shrimp (Marchesan *et al*., 2009). Snubnose pompano are diurnal feeders, they eat both days and at night and are drawn to light (Main *et al*., 2010). As a result, snubnose pompano tends to move actively around light when exposed to artificial lighting over the cultivation medium. The process of sampling the growth of the snubnose pompano during the nursery activity process can be seen in the image below. Every seven days, growth sampling activities are carried out. In this sampling activity, the sample of snubnose pompano was measured for length, weight, population, and biomass in each cage.

A t-test was carried out to compare the averages of two different samples, namely the effects of using lights and not using lights on the growth rate and health of snubnose pompano fish. The results of statistical analysis using the t-test on the weight growth of Snubnose pompano showed that the average weight of fish at the start of rearing was not significantly different ($p > 5\%$) between the treatments using lights and those without lights. After one week of rearing or the first to the seventh sampling, the average weight of the snubnose pompano showed a significant difference between the light and no light treatments ($p < 5\%$), except for the fourth sampling, which did not show a significant difference ($p > 5\%$).

The growth in length of the snubnose pompano during rearing between the light and no light treatments at the beginning of the rearing did not show a significant difference ($p > 5\%$). Furthermore, except for the fourth sampling, there was a significant difference ($p < 5\%$) between the light and no light treatments from the first to seventh samplings. The statistical analysis results proved that the use of lights had a significant ($p < 5\%$) effect on the weight and length growth of the snubnose pompano in the nursery phase. whereas in the 4th sampling, it is possible that there was only a temporary growth slowdown in the light treatment. As a result, the weight and length are not significantly different between the light treatment and the control. The results of the growth in both weight and length of snubnose pompano during nursery activities can be seen in Figure 2. The production performance of the snubnose pompano nursery with and without light treatment can be seen in Table 2.

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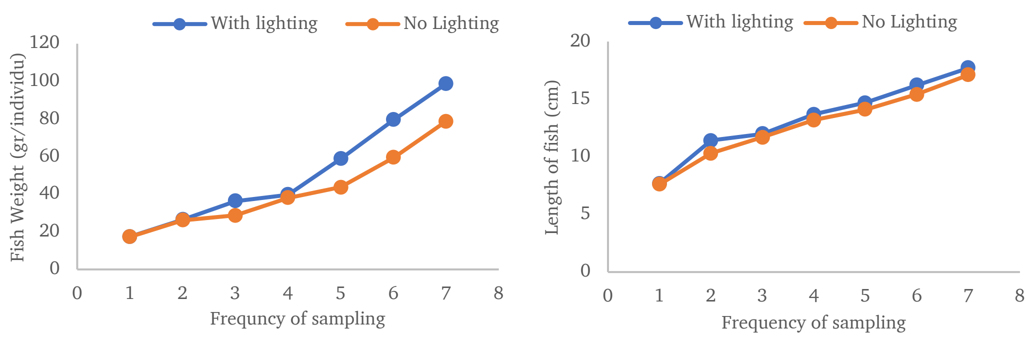

Figure 2. *Trachinotus blochii* weight (left) and length (right) growth during nursery.

Table 2. The production performance of the *Trachinotus blochii* nursery with and without light treatment.

Treatment	Initial Biomass (Kg)	Final Biomass* (Kg)	SGR Value (%/day)	Total Feed* (Kg)	FCR*	SR (%)
A (without lights) 1	4.71	46.23	4.76	41.57	1.00	100
A2	4.84	47.10	4.74	41.73	0.99	100
Average	4.77	46.67	4.75	41.65	0.99	100
B (with lights) 1	4.22	59.29	5.50	49.33	0.90	100
B2	4.70	57.64	5.22	48.30	0.91	100
Average	4.46	58.46	5.36	48.81	0.90	100

*Significant difference (p <5%)

The results of using artificial lighting systems at night in floating cages for snubnose pompano rearing increase feed efficiency productivity, as evidenced by total biomass and FCR values. The results of the production performance of snubnose pompano juveniles with the use of artificial lighting obtained during this activity, from the aspect of total feed, FCR, and SGR, were better than the production performance reported by Da Cunha *et al.* (2013) and Hamed *et al.* (2016). Da Cunha *et al.* (2013) reported that a feeding rate of 8%/BW was optimal for snubnose pompano juveniles with an SR of 98.7%, FCR of 2.52, and SGR of 3.13%/day. Hamed *et al.* (2016) reported that the optimal feeding rate for snubnose pompano juveniles was 10%/BW with a frequency of 6 feedings, with an initial average weight of 7.6 g and a final rearing weight of 45 g. The highest SGR performance was reported at 4.5%/day, and the FCR was reported at 2.2.

The contents of the stomach and intestines of the snubnose pompano can be seen in Figure 3. Based on the results, it was found that in the stomach and intestines of the snubnose pompano, with light treatment as artificial lighting, *Acetes indicus* were frequently found. Whereas in the control treatment or without lights, the stomach, and intestines of the snubnose pompano were not found to contain red shrimp. This shows that the use of lights or artificial lighting causes crustaceans, zooplankton, and small fish that are positively phototactic to gather under the lights (ACRDP, 2013; McConnell *et al.*, 2010), thus attracting them and making it easier for the snubnose pompano to be able to prey on them. Given the nature of the snubnose pompano, it is a diurnal feeder (Main *et al.*, 2010), so even though it is active at night, it is still looking for food. Balange *et al.* (2017) reported that dried *A. indicus* contained 19.00 ± 0.70% moisture, 48.29 ± 0.64% gross protein, 16.05 ± 0.52% dust, and 3.62 ± 0.09% dirty fat.

The content of biopolymer in dried *Acetes* was reported to be 10% chitin. *Acetes* are also a significant source of essential amino acids. The fatty acid profile includes 12-octadecadienic acid (17.08%), docosahexaenoic acid (DHA)

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(15.69%), eicosapentaenoic acid (EPA) (13.45%), and docosanoic acid (11.75%) as the primary fatty acids. The mineral profile shows the presence of P, Ca, K, Mg, Na, and Fe. Because the nutritional content above is complete, it is very reasonable that the snubnose pompano, which consumes and preys on lobster prawns, as well as the Snubnose pompano in the light/artificial lighting treatment, have a higher growth rate compared to the control treatment. where the artificial feed given during maintenance only contains no more than 38% gross protein.

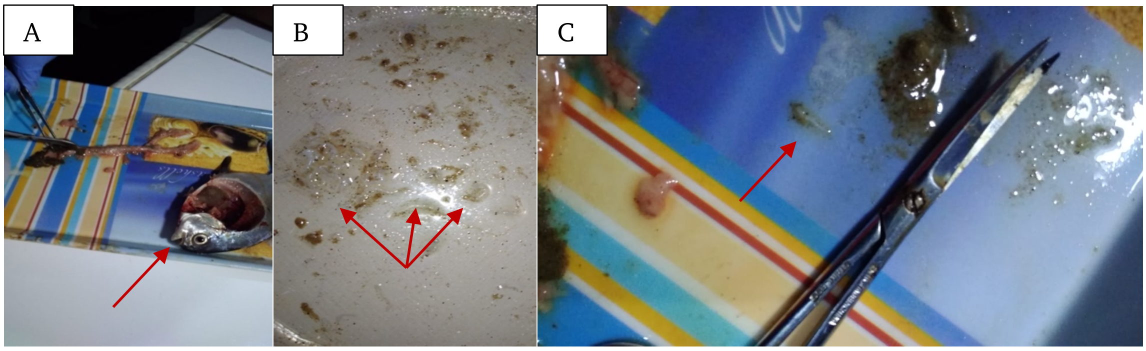

Figure 3. *Trachinotus blochii* intestinal (A), *Acetes* in the intestines (B), *Acetes* are excreted from the intestine. (C), almost digested *Acetes* intestinal contents in the *T. blochii* were observed.

The Effectiveness of Light on Fish Health and the Environment

Parasite observations were taken from the surface of the body and gills. During the observation, only *Trichodina* sp. The number of parasites is higher on the gills than on the body surface. Custodio (2016) reported that *Trichodina* can glide quickly over gill and skin surfaces. It is usually found on the gills but can also be found throughout the body, especially when the fish is weakened. *Trichodina* could infect almost all fish species and directly or indirectly cause fish death. The results of parasitic observations during testing using lights and without lights on the cultivation of snubnose pompano juveniles can be seen in Table 3. The prevalence of parasites in the treatment using lights or artificial lighting ranges from 25% to 8%, with an intensity of 6 to 8%. Meanwhile, in the control treatment or without light, the prevalence of *Trichodina* sp. parasites ranged from 25% to 75% with an intensity of 11.3–35.67%.

Based on the results, it can be seen that the use of lights as artificial lighting has a lower prevalence and intensity of parasites compared to the control treatment (without lights). The existence of lights can stimulate the snubnose pompano fish, encouraging it to continue to be active, especially in search of food. The high activity of fish when using lights is thought to be able to inhibit parasites from attaching to the body parts of the snubnose pompano. Furthermore, according to Maulana *et al*. (2017), a prevalence of 10-29% is included in the criteria for frequent infections in the light treatment. Parasite intensity 6-55 is included in the moderate criteria. In the control treatment, the prevalence reached 75%, which is included in the criteria for moderate infection. The intensity reached 35.67, included in the criteria for a moderate infection level.

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Table 3. Prevalence and intensity of parasites in *Trachinotus blochii* during testing.

Week	A (without lights)		B (with lights)	
	Trichodina sp.		*Trichodina* sp.	
	Prev (%)	Int.	Prev (%)	Int.
1	-	-	-	-
2	-	-	-	-
3	-	-	-	-
4	25.00	12.00	25	6
5	50.00	33.00	-	-
6	25.00	11.00	25	8
7	75.00	35.67	25	6

The performance of water quality during the testing of snubnose pompano in ponds can be seen in Figure 5, Figure 6, and Figure 7. Generally, the water quality parameters during rearing are still within the optimal range for cultivated organisms (BFAR-Philminaq, 2007; Bhatnagar and Devi, 2013; Boyd and Tucker, 1998), Only the temperature in the fourth measurement week was relatively low (27 C). The low temperature in the third to sixth week caused the stunted snubnose pompano growth in that period.

As a result, there was no significant difference (p > 5%) in the average weight of snubnose pompano for that week between the treatments with and without lights. Given the activity of fish and that fish metabolism is strongly influenced by the temperature of the water (Hanna *et al.*, 2008), while the salinity parameter of 19–25 ppt is still ideal for the rearing of snubnose pompano (Arrokhman *et al.*, 2012; Jayakumar *et al.*, 2014; Jayakumar *et al.*, 2013). So even though it is cultivated in ponds, salinity is not a limiting factor during rearing.

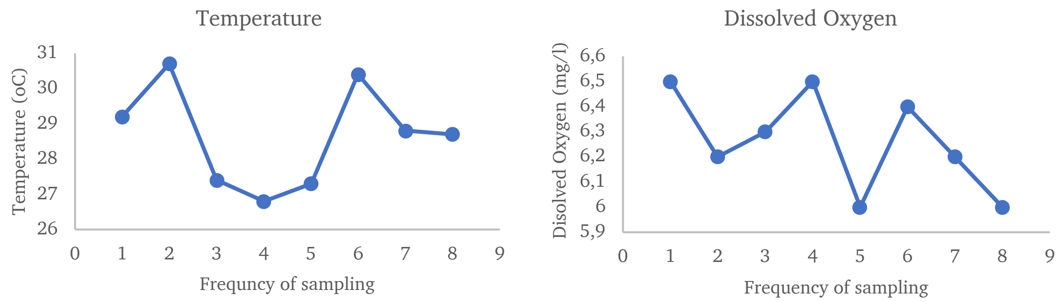

Figure 5. Observation of pond water quality, (a) temperature, (b) Dissolved Oxygen.

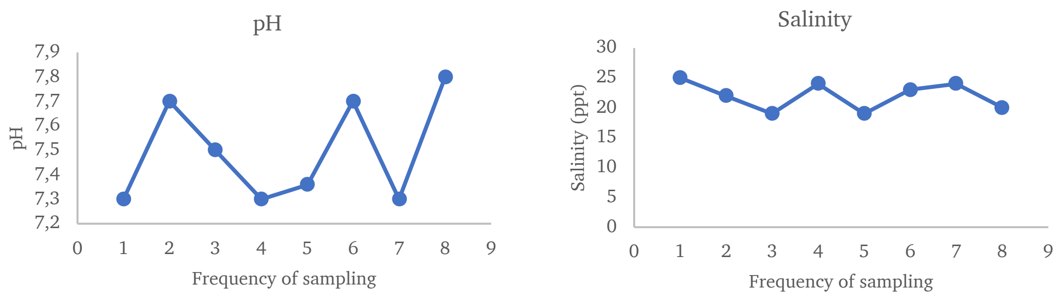

Figure 6. Observation of pond water quality, (a) pH, (b) salinity.

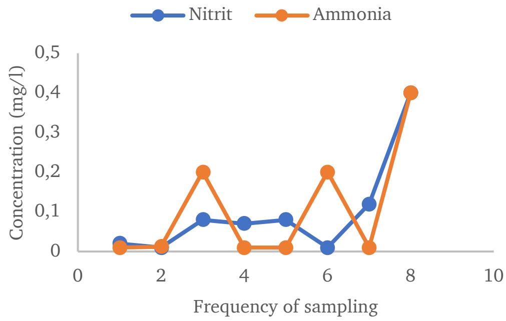

Figure 7. Observation of pond water quality Nitrite and Ammonia.

CONCLUSION

The use of lights for artificial lighting significantly affects the growth and feed conversion ratio of Snubnose pompano but does not show a significant effect on SGR and SR. The use of lights can collect organisms such as crab cakes or crustaceans so they can be consumed as an alternative feed, as seen in the contents of the stomach and intestines of the Snubnose Pompano. The use of lights also proves that the prevalence and intensity of parasites that attack snubnose pompano are lower than without lights. The lights cause diurnal snubnose pompano fish to always actively move, preventing parasites from adhering to the snubnose pompano's body during rearing.

Further studies on the application of lights for artificial lighting need to be carried out during the fish-rearing phase in cages. Conclusions describe the results of the interpretation of discussions formulated briefly, densely, and clearly to provide a concise picture of the study or prove the hypothesis's truth.

CONFLICT OF INTEREST

There is no conflict of interest in this manuscript between all authors upon writing and publishing this manuscript.

AUTHOR CONTRIBUTION

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