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Biodiversity of Fish in the Waters of Lake Village, China Reed, Hulu Siak District, District Kampar

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Abstract

This research was conducted in The Lake Pinang Dalam and Lake Pinang Luar, Desa Buluh China, District Siak Hulu, and Kampar Regency, Laboratory Hatchery and Pemuliahaan Fish (PPI), and the Laboratory of Fisheries Biology Faculty of Fisheries and Marine Sciences, University of Riau, from August to October, 2016. the purpose of this research is 1) to analyze the description and identification of the types of fish found in The Lake Pinang Dalam and Lake Pinang Luar, 2) analyze the types of fish that includes important economic value of The Lake Pinang Dalam and Lake Pinang Luar and 3) to analyze the types fish species that have successfully used the technology of cultivating through the results of research conducted prior to the kinds of fish from the waters of The Lake Pinang Dalam and Lake Pinang Luar. Research shows that the types of fish found in The Lake Pinang Dalam and Lake Pinang Luar are 5 orders, 12 families, 27 genera and 43 species. Types of fish belonging to the economically important consists of 3 orders, 6 families, 9 genera and 10 species. While the types of fish that have been successfully using the technology of cultivating consists of three orders, 4 families, 7 genera and 8 species.

INTRODUCTION

Background

Desa Buluh China which is one of the villages in Kampar regency has the prospects for development of fisheries resources in a sustainable manner, as in the village Buluh China has seven lakes (oxbow), namely 1) Lake Rengas, 2) New Lake, 3) Lake

Pinang Luar, 4) Lake Pinang Dalam, 5) Lake Tanjung Disconnect, 6) Lake Tanjung Balam and 7) Lake Tangon. The Lake Pinang Dalam and Lake Pinang Luar is strongly influenced by environmental factors, especially those related to the volume of water. Research on the types of fish in Lake Pinang (The Lake Pinang Dalam and Lake Pinang Luar) is still not a done deal. Information about the types of fish in the lake required for the management of fishery resources optimally and carry out the implementation of effective and efficient technology. Therefore, research on the diversity of the types of fish in the lake Buluh China Pinang Village, District Siak Hulu, and Kampar Regency is necessary.

Objectives and Benefits Research

This study aims to 1) analyze the description and identification of the types of fish found in The Lake Pinang Dalam and Lake Pinang Luar, 2) analyze the types of fish that belong to the economically important fish in The Lake Pinang Dalam and Lake Pinang Luar and 3) analyzing the types of fish that have been found seeding and cultivation technology through the results of research that has been done before on the types of fish from the waters of The Lake Pinang Dalam and Lake Pinang Luar. While the benefits of this research are as materials for local governments, investors and related parties (stakeholders) in the implementation of development in the area, especially be true in the fisheries subsector in Desa Buluh China, Siak Hulu subdistrict, and Kampar Regency.

RESEARCH METHODS

Materials and Equipment

The materials used in this study were samples of all kinds of fish caught by fishermen in the waters of The Lake Pinang Dalam and Lake Pinang Luar, formalin for preservation of fish samples in the laboratory and ice to preserve fish samples from the capture site to the laboratory. While the equipment used consisted of a plastic bucket on a sample of fish in transportation, scales for weighing the fish sampled, a ruler to measure the length of the fish sampled, a thermometer to measure water temperature, pH meter to measure the pH of surface waters, DO meter for measuring dissolved oxygen waters, dish sechi to measure water transparency, a camera to photograph the fish samples obtained and stationeries to record the results.

Research methods

This study uses survey focused on the waters of The Lake Pinang Dalam and Lake Pinang Luar. The data collection consists of primary data that fish samples obtained

from the catch of the fishermen and secondary data, data from interviews to the fishermen fishing, especially relating to the type of fish, including economically important.

Descriptions and Identification Types of Fish

Sampling fish species originating from the catches of fishermen along The Lake Pinang Dalam and Lake Pinang Luar within the Village Buluh China. The fish are collected in a fresh state would be photographed with the aim to see the difference in the morphology of each species present.

After shooting to the species of fish and fish preserved by using ice cubes to PPI and taken to the Laboratory of Fisheries Biology Laboratory of the Faculty of Fisheries and Marine Sciences, University of Riau for the identification of the samples of existing stocks. Identification is done by studying and suggests the characteristics of the specific morphology of each species present. For identification is done by using a guide Saanin (1984) and Kottelat *et.al,* (1993). Fish that has been completed subsequently identified dengn preserved using formalin 6%.

Analysis of Types of Fish Economical Important

Criteria used to determine the types of economic fish is by interviewing the fishermen who have known and experienced in depth the kinds of fish caught from the two lakes. In addition determination of the type-jens fish also done by surveying the price of fish in the market, especially the local market. According Alkadri, *et al. in* Daryanto, (2003), to determine the existence of a species of fish commodities relatively economical (superior) or for a region, use the following criteria: (1) must be able to be the main engine (prime mover) development per-economy, (2) is linked forward and backward strong both among the leading commodity and other commodities, (3) competitive with products or similar commodities from other regions in the national and international markets, both in terms of product prices, production costs, and quality of service, (4) have linkages with other regions both in terms of markets and supply of raw materials, (5) has the status of technology continues to increase, (6) able to absorb qualified workforce optimally match the scale of production, (7) can survive in the long term certain, (8) is not vulnerable to shocks, external and internal, (9) development flow obtain various forms of support (security, social, cultural, information and market opportunities, institutional, amenities incentives / disincentives, and others, and (10) development oriented resource conservation and environment. Types of fish that meet these criteria will be classified into types of economically important fish.

Analysis of Types of fish that has been Successful Breeding and cultivation technology of Fish Catch

Analysis to determine the types of fish that successful seeding and cultivation technology by means of literature, a search for information about the technology of cultivating that has been successfully carried out on the kinds of fish caught from the waters of The Lake Pinang Dalam and Lake Pinang Luar. The technology of cultivating it primarily from the results of research conducted at universities. The results of this study will be discussed from each fish species.

Water Quality Analysis

Water quality measurements were conducted three times, namely at the beginning, middle and end of the study. Water quality parameters were measured comprises temperature, pH, dissolved oxygen content and brightness. Water quality measurement data is tabulated in table form, hereinafter discussed using the existing literature.

RESULTS AND DISCUSSION

Descriptions and Identification of Fish Species

Based on the description and identification of fish species found in The Lake Pinang Dalam and Lake Pinang Luar, type of fish collected consists of 5 orders, 12 families, 27 genera and 43 species (Table 1).

Table 1. Types of fish that are in the lake Pinang Dalam and Lake Pinang Luar

No.	ORDER	FAMILY		GENUS	SPECIES
1.	Cyprinoformes	Cyprinidae	1	Puntius	P. schwanefeldi
			2	Puntius	P. lineatus
			3	Puntius	P. tetrazona
			4	Puntius	P .bulu
			5	Hampala	H. macrolepidota
			6	Thynnichtys	T. thynoides
			7	Osteochilus	O. haselti
			8	Osteochilus	O. pleurotaenia

			9	rasbora	R. oryrotaenia
			10	rasbora	R. pauciperforata
			11	rasbora	R. elegans
			12	Botia	B. hymennophysa
2.	Ostariophysi	Cyprinidae	13	Leptobarbus	L. hoevenni
			14	Osteochilus	O. kelabau
			15	C hela	C. oxygaster
			16	Labocheiles	L. scwanefelldi
		Pangasidae	17	Pangasius	P. pangasius
			18	Pangasius	P. polyronodon
3.	Perciformes	Channidae	19	Channa	C. micropeltes
			20	Channa	C. striatus
			21	Channa	C. marulioides
			22	Channa	Lucius C.
		Anabantidae	23	Trichogaster	T. trichopterus
			24	Trichogaster	T. leeri
			25	Trichogaster	T. pectoralis
			26	Poliacanthus	P. hasselti
			27	Anabas	A. testudineus
		Helostomatidae	28	Helostoma	H. temmincki
		Pristoplepididae	29	Pristoplepis	P. grooti
		Osphronemidae	30	Osphronemus	O. gouramy
		Eleotridae	31	Oxyeleotris	O. marmorata
		Polynemidae	32	Polynemus	P. plebosus brous
4.	Siluriformes	Siluridae	33	Mystus	M. nemurus
			34	Mystus	M. wyckii
			35	Mystus	M. wolfii

			36	Mystus	M. microcanthus
			37	Mystus	M. nigriceps
			38	Walago	W. leeri
			39	Clarias	C. batrachus
			40	Clarias	C. teismanni
			41	Hemisilurus	H. scleronema
			42	C ryptopterus	K. bicirchus
5.	Osteoglossiformes	Notopteridae	4 3	Notopterus	N. borneensis

Results of description and identification of each species of fish, among others kapiek (*Puntius schwanefeldi* Blkr), pantau cingkariak (*Puntius lineatus*), pantau sumatra (*Puntius sumatra*), subahan (*Puntius bulu*), barau (*Hampala macrolepidota*), motan (*Thynnichthys thynnoides*), pawas (*Osteochilus haselti*), lelan (*Osteochilus pleurotaenia*), pantau (*Rasbora Orirotaenia*), pantau pensil (*Rasbora pauciperforat*), pantau tigamata (*Rasbora elegans),* botia (*Botia hymenophysa*), klemak (*Leptobarbus hoevenii*), kalabau (*Osteocilus kalabau*), sepimping (*Chela oxygaster*), kasau (*Labacheilus schwanefelldi*), patin (*Pangasius pangasius)*, juaro (*Pangasius polyranodon*), toman (*Channa micropeltes*), gabus (*Channa striata*), tombang (*Channa marulioides*), bujuk (*Channa lucius*), sepat rawa (*Trichogaster trichopterus*), sepat mutiara (*Trichogaster leeri*), sepat siam (*Trichogaster pectoralis*), selinca (*Poliacanthus hasselti*), betok (*Anabas testudineus*), tambakan (*Helostoma temmincki*), katung (*Pristoplepis grooti*), gurami (*Osphronemus gouramy*), betutu (*Oxyeleotris marmorata*), kuru (*Polynemus plebeius),* baung (*Mystus nemurus*), geso (*Mystus wyckii*), baung tikus (*Mystus wolfii*), baung pisang (*Mystus micracanthus*), ingir-ingir (*Mystus nigriceps),* tapah (*Wallago leeri*), lele lokal (*Clarias batrachus*), keli (*Clarias teijsmanni*), sengarek (*Hemisilunas scleronema*), selais (*Kryptopterus bicirchis*) and belida (*Notopterus borneensis)*.

There are 43 species of fish is generally found in some public waters in Riau province. Siregar *et al*. (1979) managed inventory 72 commercial fish species originating from the waters of the Rokan Riau. Pardinan (1980) has managed to collect 13 species from Kampar Kanan River that crosses the village Bangkinang. Hamidy and Alawi (1981) in the public waters of Riau which covers about 268 830 ha is found to be less than 100 commercial fish species. Hamidy et al (1983) in the waters of the River Siak Riau, there are about 104 species consisting of 11 orders, 31 families and 65 genera. Pulungan et al., (1986) stated in Kampar River upstream obtained 40 species of fish and which has been successfully identified just 25 species,

while another 15 species have not been identified. Sukendi (2014) states in Kampar Riau River waters have identified 31 species of fish consisting of 4 of the Order, 10 Family and 21 Genus.

Types of Fish Economical Important

Table 2. Types of Fish Economical Important

No.	ORDER	FAMILY		GENUS	SPECIES
1.	Ostariophysi	Cyprinidae	1.	Leptobarbus	L. hoevenni
		Pangasidae	2.	Pangasius	P. pangasius
2.	Perciformes	Channidae	3.	Channa	C. micropeltes
		Osphronemidae	4.	Osphronemus	O. gouramy
		Eleotridae	5.	Oxyeleotris	O. marmorata
3.	Siluriformes	Siluridae	6.	Mystus	M. nemurus
			7.	Mystus	M. wyckii
			8.	Walago	W. leeri
			9.	Hemisilurus	H. scleronema
			10.	K ryptopterus	K. bicirchus

The results showed that of the 43 species of fish there are 10 species belonging to economically important fish species, consisting of 3 orders, 6 families and 9 genus (Table 2). As for the fish species that is 1) klemak *(Leptobarbus hoevenni),* 2) catfish *(Pangasius pangasius),* 3) toman *(Channa micropeltes),* 4) gourami *(Osphronemus Gourami),* 5) betutu *(Oxyeleotris marmorata),* 6) baung *(Mystus nemurus),* 7), Geso *(Mystus wyckii),* 8) tapah *(Walago leeri),* 9) sengarek *(Hemisilurus scleronema)* and 10) selais *(Kryptoterus bicirchus).* This fish is a fish species that have high selling price in the market and well-liked by the public, especially in Buluh China village and other regions in the province of Riau. Sukendi (2014) stated at the Kampar River waters have identified 31 fish species is comprised of 4 of the Order, 10 Family and 21 Genus. Of the 31 species that there are 5 species classified in the types of fish superior, namely: 1) kapiek *(Puntius schwanefeldi),* 2) klemak *(Leptobarbus hoevenni),* 3) patin *(Pangasius pangasius),* 4) baung *(Mystus nemurus)* and 5) toman

(Channa micropeltes). He also said that of the five species are kapiek and baung hatchery technology has been successfully performed and cultivation while for klemak, patin and new toman only until the technology maturation parent to be used as broodstock in fish hatcheries.

Types of fish that has been Successful Breeding and cultivation technology of Fish Catch in the waters of the lake and the Lake Pinang Dalam and Lake Pinang Luar

The results showed 43 species of decryption and identification results, there are eight species have been behasil done cultivating technology. 8 species are composed of three orders, four families' and 7 genus (Table 3).

Table 3. Types of Fish Has Found Successful Breeding and Cultivation Technology

No.	ORDER	FAMILY		GENUS	SPECIES
1.	Cyprinoformes	Cyprinidae	1	Puntius	P. *schwanefeldi*
			2	Thynnichtys	T. *thynoides*
			3	Osteochilus	O. *haselti*
2.	Perciformes	Anabantidae	4	Trichogaster	T. *leeri*
		Helostomatidae	5	Helostoma	H. *temmincki*
3.	Siluriformes	Siluridae	6	Mystus	M. *nemurus*
			7	Mystus	M. *nigriceps*
			8	K ryptopterus	K. *bicirchus*

1. Kapiek *(Puntius schwnefeldi* Blkr)

Kapiek fish hatchery technology can be done through artificial spawning by using a combination of injecting ovaprim and $PGF_2\alpha$. According Sukendi (2012a) for female parent fish the best combination of injection was 75% + 25% ovaprim PGF $_2\alpha$ (0.45 ml ovaprim + 750 μg PGF $_2\alpha$ / weight) produces a latency time of 6 hours 30 minutes, the number of eggs ovulate as many as 28 616 grains, the increase in diameter of 0.24 mm eggs and egg maturation increase of 23%. As for the male parent fish the best combination of injection was 50% + 50% ovaprim PGF $_2\alpha$ (0.250 ml ovaprim + 1 250 μg PGF $_2\alpha$ / weight) produces semen volume of 2.03 ml, sperm concentration of

18.80 xx 10^9 / ml, amounting to 91.67% of sperm viability, motility by 86.63%, amounting to 71.30% fertility, hatchability amounted to 63.67%, the growth of the absolute weight of 0.76 grams, the absolute length growth of 2 , 93 mm, the daily weighted growth rate of 7.74% and survival by 70.50%.

Kapiek cultivation technology can be done by maintenance in cages placed in natural waters (rivers). Kapiek pisciculture in cages placed in the river is much better when compared to maintenance done in the pool. Pisciculture kapiek for four months carried in cages in the river with stocking density 20 fish / m^3 and a feeding pellet containing 28% protein will be able to generate growth in the absolute weight of 28.29 grams, the growth of the absolute length of 19.25 cm, daily weight growth rate by 2.95% and survival rate of 93.3%.

2. Motan *(Thynnicthys thynnoides* Blkr)

Motan hatchery technology can be done using a combination of injecting ovaprim and $PGF_2\alpha$. According Sukendi (2012b) for holding female fish combination of injecting the best is 50% ovaprim + 50% $PGF_2\alpha$ (0.350 ml ovaprim + 1500 µg $PGF_2\alpha$ / kg body weight) results in latency time of 6 hours 48 minutes, the number of eggs ovulation as many as 16308 grains, the increase in diameter of 0.23 mm eggs and egg maturation accretion of 20%. While for holding male fish the best combination of injection was 75% + 25% ovaprim $PGF_2\alpha$ (0.525 ml ovaprim + 750 µg $PGF_2\alpha$ / body weight) resulted in a 1.2 ml volume of semen, spermatozoa concentration of 24.54 x 10^9 / ml, amounting to 88.98% of sperm viability and motility of 80.56%.

Motan fish farming technology can be done by maintaining in cages placed in the natural waters (river) with a stocking density of 50 birds / cage size 1 x 1 x 1 m resulted in the growth of the absolute weighted average of 8.61 g, average growth in length absolute amounted to 2.43 cm, average daily weight growth rate of 0.5445%, the average daily growth rate amounted to 0.1750% length and survival rate of 100%.

3. Pawas *(Osteochilus hasselti* CV)

Pawas fish hatchery technology can be done using injection ovaprim. According Sukendi (2016) for female parent fish is best injection ovaprim 0.6 ml / kg body weight resulted in a latency time of 6 hours 20 minutes, the number of eggs the ovulation of 242 grains / gram parent, increase egg diameter of 0.1925 mm, increase the maturity of eggs by 20% and the value of the index ovisomatik 14.75%. As for the male parent fish is best injection ovaprim 0.5 ml / kg body weight) resulted in semen volume of 0.63 ml, sperm concentration of 1404 x 10^7 cells / ml, amounting to 86.54% of sperm viability, motility of spermatozoa 71.33%, 81% fertility and hatchability of 76%. Furthermore, to the value of fertility and hatchability of the best

is a combination of injecting the best is 75% ovaprim + 25% $PGF_2\alpha$ (0.525 ml ovaprim + 750 µg $PGF_2\alpha$ / kg body weight) each produce value in fertility by 76% and power hatching rate of 70%. Further to the enlargement larval growth values obtained absolute weight of 0.619 grams, the daily weighted growth rate of 0.328%, the growth in the absolute length of 2.887 cm and survival by 95.10%.

Pawas fish farming technology can be done by the maintenance of stocking density in cages with 20 birds / m^3 and the hormone thyroxine at a dose of 6 mg / kg of feed to produce value growth in absolute weight of 5.12 grams, the absolute length growth by 4.63 cm, daily weight growth rate of 2.64%, feed conversion ratio of 1.68 and a value of survival by 93.5%.

4. Sepat Mutiara *(Trichogaster leeri* Blkr)

Sepat Mutiara fish hatchery technology can only be done through artificial spawning semi / semi-natural (Sukendi, Son and Yurisman 2012 and 2012 b). Spawning can be done by providing a substrate consisting of water hyacinth plants, herbs and rope Hidrilla rampia are mashed. The best substrate for spawning semi artificial / natural spring hidriila is to use plants that will produce an average of 49.33 hours during the spawning period, the number of eggs spawned 586 grains, the value of fertilization / fertility amounted to 71.93% and the hatching of 60.09%.

Cultivation technology Sepat pearl according Sukendi, Son and Yurisman (2013) can be done by maintenance in cages with a stocking density of 40 birds / m^3 and the hormone thyroxine at a dose of 6 mg / kg of feed to produce value growth of weight absolute amounted to 1,187 grams, length growth absolute amounted to 4.77 cm, the daily weighted growth rate of 1.83%, the growth rate of the daily length of 0.677% and the value of survival by 90.67%.

5. Tambakan *(Helostoma temmincki* Blkr)

Hatchery technology kissing gourami can be done using a combination of injecting ovaprim and $PGF_2\alpha$. According Sukendi (2011) for holding female fish combination of injecting the best is 75% ovaprim + 25% $PGF_2\alpha$ (0.525 ml ovaprim + 750 µg $PGF_2\alpha$ / kg body weight) results in latency time of 6 hours 42 minutes, the number of eggs ovulation as many as 9428 items, the increase in diameter of 0.27 mm eggs and egg maturation increase of 32%. As for the male parent fish the best combination of injection was 50% + 50% ovaprim $PGF_2\alpha$ (0.250 ml ovaprim + 1500 µg $PGF_2\alpha$ / kg body weight) resulted in semen volume of 1.10 ml, sperm concentration of 24.27 x 10^9 / ml, amounting to 87.23% of sperm viability and motility of 82.27%. Furthermore, to the value of fertility and hatchability of the best is a

combination of injecting the best is 75% ovaprim + 25% $PGF_2\alpha$ (0.525 ml ovaprim + 750 Âµg $PGF_2\alpha$ / kg body weight) each produce value in fertility by 76% and power hatching rate of 70%.

6. Baung *(Mystus nemurus* CV)

Baung fish hatchery technology can be done using a combination of injecting ovaprim and $PGF_2\alpha$. According Sukendi (2001) for female parent fish the best combination of injection was 75% + 25% ovaprim $PGF_2\alpha$ (0.6750 ml ovaprim + 750 µg $PGF_2\alpha$ / kg body weight) results in a latency time of 6 hours 36 minutes, the number of eggs ovulation as much as 30512 grains, the increase in diameter of 0.295 mm eggs and egg maturation accretion amounted to 13.60%. As for the male parent fish the best combination of injection was 50% + 50% ovaprim $PGF_2\alpha$ (0.250 ml ovaprim + 1250 µg $PGF_2\alpha$ / weight) produces a volume of 1,950 ml of semen, spermatozoa concentration of 19.18 x 10^9 / ml, amounting to 93.80% of sperm viability and motility of 91.02%. The combination of injecting 75% + 25% ovaprim $PGF_2\alpha$ 50% + 50% ovaprim $PGF_2\alpha$ (0.6750 ml ovaprim + 750 µg $PGF_2\alpha$ / kg body weight) is the best combination to produce fertility by 91.80%, hatchability of 84.020%, the growth of the absolute weight of 0.841 grams, growth in absolute length of 5.158 mm, the daily weighted growth rate of 8.485% and survival by 73.52%.

Baung fish farming technology can do in cages and in ponds (Sukendi, 2007). For cultivation in cage stocking density is used widely cages of 1.5 x 1.5 m is 100 individuals will generate growth in absolute weights ranging from 59.872-60.220 grams, the absolute length growth between 14.245 to 15.025 cm and daily weight growth rate between 8.08-8.12%. While cultivation in ponds with stocking density of 1000 birds in an area of 8 x 14 m will generate growth in absolute weights ranging from 57.872-60.120 grams, the absolute length growth between 14.150 to 14.335 cm and weight growth rate daily between 8.05-8.09%.

7. Ingir-Ingir *(Mystus nigriceps* CV)

Ingir fish hatchery technology-ingir can be done using injection ovaprim. According Sukendi (2014) for the treatment of female parent fish is best to increase the stimulation of ovulation and egg quality of the fish is a ovaprim injection treatment with a dose of 0.70 ml / kg body weight, resulting in latency time of 6.37 hours, the number of eggs ovulation as much 7733 grains, the increase in diameter of 0,038 mm eggs, egg maturation accretion amounted to 14.30% and ovisomatik index value of 9.85%. As for the parent fish-ingir male ingir best treatment to produce cement volume is ovaprim injection at a dose of 0.40 ml / kg body weight, produces semen volume as much as 0.092 ml.

8. Selais *(Kryptopterus bicirchus)*

Technology slice seeding can be done using a combination of injecting ovaprim and $PGF_2\alpha$. According to the Son, Sukendi and Yurisman (2010) for female parent fish the best combination of injection was 75% + 25% ovaprim $PGF_2\alpha$ (0.6750 ml + 625 ovaprim $PGF_2\alpha$ g / kg body weight) results in a latency time of 6 , 0 hours, the number of eggs ovulation as much as 956 grains, the increase in diameter of 0.35 mm eggs and egg maturation accretion of 13% .Sedangkan for injecting male brood fish slice is best is 100% ovaprim (0.9 ml ovaprim / body weight) produces cement by 0.87 ml volume, sperm concentration of 18.43 x 10^9 / ml, amounting to 88.67% of sperm viability and motility of 86.0%.

Quality Water

Water quality measurement results show the value of dissolved oxygen is quite small. Dissolved oxygen in a body of water will affect the process of digestion of fish, but the fish need for oxygen terlaut greatly depending on the species and size of fish. The temperature of water in the lake and the lake Pinang Pinang Outside In still support for the life of the fish for a good temperature for water species is between 25-30 ^oC. Further pH values obtained in the two lakes is still worth it for the life of the fish, because according Boyd (1982) fish will be able to grow and thrive in a pH range between 6.5-9. Meanwhile, according Syafriadiman, Pamukas and Hasibuan (2005) pH is good for the life of fish in aquaculture is between 5-9 and to fish in the waters of the swamp has a very low pH is less than 4. The brightness obtained are also still eligible for the life of the fish for a decent brightness values for fish life is above 40 cm.

CONCLUSION

From the research that has been done can be concluded as follows:

1. In the waters of the lake Pinang Dalam and lake Pinang Luar Buluh China Village, District Siak Hulu Kampar Regency found 43 species of fish that are 5 orders, 12 families and 27 genus.
2. There are 43 species of fish found in the waters of the lake Pinang Dalam and lake Pinang Luar are 10 species belonging to the economically important fish, the fish consists of 3 orders, 6 families and 9 genus. These species are klemak *(Leptobarbus hoevenii),* patin *(Pangasius pangasius),* toman *(Channa micropeltes),* pawas *(Osphronemus gouramy),* betutu *(Oxyeleotris marmorata),* baung *(Mystus nemurus),* baung geso *(Mystus wolfii),* tapah *(wallago leeri*), singarek *(Hemisilunas scleronema)* and selais *(Kryptopterus bicirchus).*

3. There are 43 species found there are eight species have been succesfully done seeding and cultivation technology, the fish consists of 3 orders, 4 families and 7 genus. These species are kapiek *(Puntius schwanefeldi* Blkr), motan *(Thynnichthys thynnoides),* pawas *(Osteochilus haselti),* sepat mutiara *(Trichogaster leeri),* tambakan *(Helostoma temmincki),*baung *(Mystus nemurus),* ingir-ingir *(Mystus nigriceps)* and selais *(Kryptopterus bicirchus).*

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