

# Fishing Ground Of Featured Fishes In South Bangka Regency, Indonesia

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**Abstract**–South Bangka Regency has 59 islands with various abundant potentials including the potential of capture fisheries. Information about fishing ground is absolutely necessary as a baseline for sustainable data management of the capture fisheries sector, both from the ecological, social and economic aspects. The aim of this research is to map the area of fishing ground which is the featured fish species. This research was conducted from April to May 2018. The data obtained were primary data in the form of questionnaires as many as 160 respondents and secondary data from various relevant agencies. The method of determining number of respondents with Slovin formula and selection of respondents using purposive sampling method. Data analysis of featured fish species using the location quotient (LQ) method. Classification of fishing gear using Minister of Marine and Fisheries Regulation Number 6 in 2010 concerning fishing gear in Republic of Indonesia Fisheries Management Area (WPPRI) and map of fishing ground using google earth application. The result of the analysis showed that there are 18 types of featured caught fish in the South Bangka Regency. The spread of fishing ground in these 18 featured fishes generally ranges from 0-12 miles from the mainland coastline of South Bangka Regency, in addition there are also in the Java Sea, the sea of Central Bangka Regency and the Bangka Strait. In the future, fishing ground of this featured fishes is expected to be managed well, so that sustainable utilization can be achieved which can continue to support the regional economy of South Bangka Regency.

**Keyword**–Fishing Ground, featured fishes, South Bangka

## I. INTRODUCTION

There are 59 islands in the South Bangka Regency with the potential of fisheries including capture fisheries. The capture fisheries sector is the leading sector in this district with the estimation of MSY potential for small pelagic fish of 31,630 tons /year, large pelagic fish of 2,340 tons/year and demersal fish of 16,750 tons /year [1]. Fishing activities in South Bangka Regency are carried out with various types of fishing gear including trawl, liftnet, mini purse seine, and gillnet. While the main of catch fish are dogol shrimp, squid, mackerel and pomfret.

The development of an area depends on the potential of the region. To understand the regional leading potential, one of the general approaches is the economic model of the basic sector as a first step to understanding commodities that drive economic growth. One of the methods used to view economic growth is the Location quotient (LQ) method.

The location quotient (LQ) method measures relative concentration or specialization degree of economic activities through a comparative approach. The LQ model explains that the direction and growth of an area is determined by regional exports. The theory of export-based regional growth explains that some activities in an area are basic to their growth and gives rise to and determines the overall development of the area, while other activities (non-basic) are a consequence of the overall development [2]. According to this theory, all regional growth is determined by the basic sector, while the non-basic sector, which includes supporting activities, such as trade, personal services, production for local markets and input production for products in the basic sector, serves the industry industry in the basic sector as well as workers

Aim of these research are Analysis of featured fish species as the basic sector in improving regional economic

growth in South Bangka Regency. Assessing the type of fishing equipment that catches in the form of featured fishes in the South Bangka Regency. Mapping the location of fishing ground fishing area of featured fish species in South Bangka Regency.

**II. MATERIAL AND METHODS**

*A. Research Timeline*

The study was conducted in April 2018 to May 2018, located in the South Bangka Regency of the Bangka Belitung Islands Province

*B. Tools and Materials*

The tools used in this study include questionnaires, statistical software to process statistical data, Microsoft Excel to process data and data series of capture fisheries statistics as processed data, cameras, calipers. The material used in the study is secondary data obtained from relevant agency data (2.2).

*C. Types and Data Sources*

The data taken in this study are primary data and secondary data. Primary data was obtained from questionnaire data from 160 fishermen in South Bangka Regency. The data taken includes the type of fishing gear, construction, vessel volume (GT) and trip capture for each unit.

Secondary data was obtained from the Department of Agriculture, Food and Fisheries of South Bangka Regency and the Central Statistics Agency (BPS) of South Bangka Regency. Secondary data taken in the study are presented in Table 1.

TABLE 1. PRIMARY DATA TAKEN IN THE STUDY

No.	Data Description	Sources
1.	Type of Fishing Gear	Fisherman Interviews in South Bangka Regency
2.	Material and Fishing Gear Construction	Fisherman Interviews in South Bangka Regency
3.	Ship Volume	Fisherman Interviews in South Bangka Regency
4.	Catch Trip	Fisherman Interviews in South Bangka Regency
5.	Completeness of SIUP and SIPI	Fisherman Interviews in South Bangka Regency

TABLE 2. SECONDARY DATA TAKEN IN THE STUDY

No.	Data Description	Sources
1.	South Bangka Regency in 2017	BPS of South Bangka Regency
2.	Fisheries Data of South Bangka Regency 2012-2016	Department of Agriculture, Food and Fisheries, South Bangka Regency
3.	Annual Report of the South Bangka Regency DPP for Fisheries	Department of Agriculture, Food and Fisheries, South Bangka Regency
4.	Fisheries Statistics Data	DPP, South Bangka Regency

*D. Respondent Determination Method*

Determination of the number of respondents in this study according to [4], using the Slovin formula. The number of major fishermen in South Bangka Regency with a total of 3,649 (DPPP of South Bangka Regency, 2017).

$$n = \frac{N}{1 + N \cdot e^2} = \frac{3.649}{1 + 3.649 \cdot 0,1^2} = 97,33$$

People or fulfilled into 100 samples

Information:

n = Number of Samples

N = Total population

e = Limit of accuracy used

Determination of respondents using purposive sampling method. Purposive sampling is an informant selection tool that is widely used in ethnobotany [5a]. The purposive sampling technique, also called judgment sampling, is a deliberate selection to serve as an informant because of the quality possessed by the informant [5a]. This is a nonrandom technique that does not require the theory underlying the selection of a number of informants [5a]. Put simply, researchers decide what needs to be known and determined to find people who can and are willing to provide information based on knowledge or experience (Bernard 2002, Lewis & Sheppard 2006) [5b]. Purposive sampling is mainly exemplified through key informant techniques (Bernard 2002, Garcia 2006, Gustad et al. 2004, Jarvis et al. 2004, Lyon & Hardesty 2005) [5c], where one or more individuals are asked to act as guides or stakeholders in the field of capture fisheries. Key informants are obedient and reflective community members who are interested in capture fisheries and are able to share knowledge (Bernard 2002, Campbell 1955, Seidler 1974, Tremblay 1957) [5d]

*E. Data Analysis*

Study of the potential and level of utilization of fish resources in South Bangka Regency using quantitative analysis and descriptive analysis [6]. Quantitative research methods are systematic scientific research on parts and phenomena and their relationships [7]. Descriptive analysis is used to explain the type of fishing gear, construction, vessel volume (GT) and fishing trip per fishing gear in South Bangka Regency. Descriptive analysis is a method used in research as applied research by applying a theory to solve certain problems. The theory used in this study is to explain about the grouping of fishing gear according to the Minister of Regulation No. 6 of 2010 concerning fishing gear in WPPRI.

The next stage determines the featured fish resources (SDI) in the South Bangka Regency, with the aim of knowing the type of fish resources to be managed, mapping the fishing area (fishing ground). Determination of the type of featured fish resources is done by the location quotient (LQ) method. The featured fish resources analysis is based on two criteria, namely: (1) the value of the location quotient (LQ) of fish production. LQ is analyzed by comparing the value of the production of one type of fish to the total value

of fish production in a district compared to the comparison of the value of the production of the fish species to the total production value of the province concerned.

LQ analysis is used to identify featured economic categories that can be developed in an area and identify the comparative advantage of a region. The LQ formula used is as follows,

[8] :

$$LQ = \frac{Y_{ij}/Y_j}{Y_i/Y}$$

Information :

Y<sub>ij</sub> : Total type i fish production in South Bangka

Regency

Y<sub>j</sub> : Total production of capture fisheries in South Bangka Regency

Y<sub>i</sub> : Total fish production of type i in Bangka Belitung Islands Province

Y : Total production of capture fisheries in Bangka Belitung Islands Province

LQ > 1, type i fish is a featured commodity in South Bangka Regency

LQ < 1, type i fish is not a featured commodity in South Bangka Regency

### III. RESULT AND DISCUSSION

#### A. Leading Sector

There are various sectors in the South Bangka Regency including agriculture, plantations, fisheries, tourism and mining. From the calculation using the LQ (Location Quotient) Analysis in the fisheries sector is the leading sector (Table 4).

Growth in the fisheries sector makes this sector the leading sector in South Bangka Regency. The production of caught fish species and good marketing prospects to support the fisheries sector have progressed compared to other sectors. In addition, the consumption of fish in the Bangka Belitung Islands, particularly South Bangka Regency continues to increase every year along with increasing the number of consumers, consumption patterns, levels of community income and price levels that occur in the market.

The fisheries sector can be a source of regional economic growth in the South Bangka Regency. This happens with the carrying capacity in the form of capture fisheries, featured

fish commodities, supported by the increasing demand for fisheries and the development of the fishery processing industry. In addition, innovations in fishery products that are renewable in nature support the development of the fisheries sector in the future.

In the long run, fisheries economic sectors are able to solve economic problems, one of which is capture fisheries by implementing an integrated fisheries business system, which covers aspects of production, handling and processing, and marketing of fishery products.

#### B. The Featured Fishes in South Bangka Regency

Management of capture fisheries in an area certainly cannot be separated from the development of superior commodities (featured fishes resources) in the area. Determination of featured fishes resources in South Bangka Regency is a very important process considering the existence of featured fishes resources can be a determinant of the sustainability of capture fisheries development in this district. The types of featured commodity fishes can be seen in Table 5 below

TABLE 3. DATA ANALYSIS METHODS.

No	Fisheries Data	Method of Data Analysis
1.	Fishing Gear Classification	Observation and Identification by classifying according to Minister of Marine and Fisheries Regulation Number 6 in 2010 concerning fishing gear in WPPRI.
2.	Determination of Regional Featured Sector of South Bangka Regency	Calculation of Location Quotient (LQ) Analysis
3.	Determination of Regional Featured Fish Commodities in South Bangka Regency	Calculation of Location Quotient (LQ) Analysis
4.	Fishing Ground	Questionnaire, mapping with Google Earth software

Description: \* Secondary Data

TABLE 4. LQ OF THE FISHERIES SECTOR IN SOUTH BANGKA REGENCY

Tahun	E <sub>ij</sub>	E <sub>j</sub>	E <sub>in</sub>	E <sub>n</sub>	E <sub>ij</sub> /E <sub>j</sub>	E <sub>in</sub> /E <sub>n</sub>	LQ
2013	519784	4852974	2638728.281	42190857.09	0.107106282	0.062543	1.712532
2014	562674	5068267	2802159.944	44159439.52	0.111019013	0.063456	1.749557
2015	586884	5274382	2886921.063	45962303.99	0.111270666	0.062811	1.771526
2016	567907	5495600	2990222.094	47850820.67	0.103338489	0.062491	1.653667

**TABLE 5. LQ TYPE OF FEATURED COMMODITY FISHES IN SOUTH BANGKA REGENCY**

No	Nama Ikan	Nama Latin	LQ	Status Komoditas	No	Nama Ikan	Nama Latin	LQ	Status Komoditas
1	Teri	<i>Stolephorus sp.</i>	0.45	Bukan Unggulan	17	Kakap Putih	<i>Lates calcarifer</i>	0.14	Bukan Unggulan
2	Belanak	<i>Crenimugil seheli</i>	0.54	Bukan Unggulan	18	Golok	<i>Chirocentrus dorab</i>	0.23	Bukan Unggulan
3	Talang-Talang	<i>Scomberoides tala</i>	3.99	Unggulan	19	Gerot	<i>Pomadasys maculatum</i>	4.79	Unggulan
4	Kembung	<i>Rastrelliger brachysom</i>	1.46	Unggulan	20	Ikan Kapas	<i>Gerres filamentosus</i>	0.98	Bukan Unggulan
5	Siro	<i>Amblygaster sirm</i>	0.39	Bukan Unggulan	21	Peperek	<i>Leiognathus equulus</i>	1.23	Unggulan
6	Selar	<i>Selaroides leptolepis</i>	0.85	Bukan Unggulan	22	Kakap Merah	<i>Lutjanus campechanus</i>	0.04	Bukan Unggulan
7	Tembang	<i>Sardinella fimbriata</i>	0.73	Bukan Unggulan	23	Biji Nangka	<i>Lutjanus campechanus</i>	4.59	Unggulan
8	Selanget	<i>Anodontostoma selang</i>	1.66	Unggulan	24	Kurisi	<i>Nemipterus furcosus</i>	1.67	Unggulan
9	Tenggiri	<i>Scomberomorus comm</i>	9.7	Unggulan	25	Kuro	<i>Polydactylus octonemus</i>	1.92	Unggulan
10	Tenggiri Papan	<i>Scomberomorus gutta</i>	20.92	Unggulan	26	Tiga Waja	<i>Nibea albiflora</i>	2.18	Unggulan
11	Ekor Kuning	<i>Caesio cuning</i>	1.71	Unggulan	27	Kerapu Sunu	<i>Plectropomus macullatu</i>	0.06	Bukan Unggulan
12	Manyung	<i>Netuma thalassina</i>	0.86	Bukan Unggulan	28	Kerapu Karang	<i>Epinephelus fuscoguttat</i>	0.18	Bukan Unggulan
13	Ikan Sebelah	<i>Psetodes erumei</i>	2.27	Unggulan	29	Baronang	<i>Siganus sp.</i>	1.6	Unggulan
14	Kuwe	<i>Caranx sexfasciatus</i>	0.64	Bukan Unggulan	30	Pari Macan	<i>Pastinachus solocirostris</i>	0.24	Bukan Unggulan
15	Bawal Hitam	<i>Parastromateus niger</i>	1.18	Unggulan	31	Pari Burung	<i>Rhinoptera javanica</i>	0.7	Bukan Unggulan
16	Bawal Putih	<i>Pampus argenteus</i>	1.57	Unggulan	32	Cumi	<i>Loligo sp</i>	1.27	Unggulan
Keterangan:				Komoditas Unggulan	33	Udang Dogol	<i>Metapenaeus ensis</i>	4.49	Unggulan

Source: Questionnaire processed data

The diverse potential of capture fisheries in South Bangka Regency can be presented in Table 5 which shows about 33 types of capture fisheries with some of them being featured commodities (18 featured commodities). Excellent commodities are commodities that have the potential and can be competitive with similar products in other regions. Because it has comparative advantages and high business efficiency [9].

The following 18 types of featured commodities are based on the highest order of LQ (Location Quotient) values, including: Mackerel Board, Mackerel, Gerot, Jackfruit Seeds, Dogol Shrimp, Gutters, Sebelah Fish, Tigawaja, Kuro, EkorKuning, Kurisi, Selanget, Baronang, BawalPutih, Kembung, Cumi, Peperek and BawalHitam. A LQ value of more than 1 indicates that the commodity has competitiveness or comparative superiority in the region and has the potential to become an export commodity. The growth of an area is determined by regional exports (10). The export is not limited to the form of goods and services, but can also be in the form of expenditure of foreigners in the area on immovable property.

Judging from the range of values, the LQ value of mackerel board has the highest value of 20.92. With the LQ value means the production of board mackerel in South Bangka Regency for a production concentration of 20.92 times higher than the provincial level mackerel board production. This high production is in line with the good ecological conditions in the South Bangka Regency. the condition of environmental carrying capacity in South Bangka Regency is still good enough to support the life of various aquatic biota [11].

Several criteria for superior commodities are based on the Directorate General of Regional Development of the Ministry of Home Affairs, Circular Number 050.05 / 2910 /

III / BANDA dated December 7, 1999, as follows: a. Having a prominent and innovative local content; b. Having high competitiveness in the market, both the characteristics, quality and competitive prices and wide marketing reach, both domestically and globally; c. Having regional characteristics because it involves many people (local labor); d. Having guarantees and sufficient, stable and sustainable raw material content; e. Focused on products that have high added value, both in packaging and processing; f. It is economically beneficial and beneficial to increase the income and human resource capabilities of the community; g. Environmentally friendly, does not damage the environment, is sustainable and does not damage the local culture.

### *C. Types of Fishing Gear in South Bangka Regency*

Fishing gear according to Indonesian Fisheries Statistics is divided into 10 groups of fishing gear [12]. Fishing gear in South Bangka Regency can be seen in the following table:



TABLE 6. CLASSIFICATION OF TYPES OF FISHING EQUIPMENT IN SOUTH BANGKA REGENCY

No	Klasifikasi (FAO dan PERMEN-KP)	Jenis Alat Tangkap	GT (%)			Trip (hari) (%)					Kelengkapan Dokumen (%)	
			<5	5 s.d 10	10<	1	2	3	4	5	Ada	Tidak
1	Pukat Hela	Trawl	78	22	0	8	8	78	6	0	42	57
2	Pukat Tarik	Cantrang	0	100	0	54	46	0	0	0	-	-
3	jaring insang	Bottom Gillnet	48	50	2	44	5	21	25	5	69	31
		Jaring Bawal	73	27	0	53	0	7	40	0	53	47
		Jaring Pari	0	100	0	0	0	0	0	100	42	58
4	Trap/Perangkap	Sero	100	0	0	100	0	0	0	0	83	17
		Bubu Lipat	100	0	0	15	10	75	0	0	50	50
		Bubu Kawat	100	0	0	0	0	43	15	42	47	53
5	Pancing	Pancing Tonda	100	0	0	0	0	0	100	0	100	0
		Pancing Cumi	100	0	0	0	0	0	100	0	67	33
		Pancing Dasar	100	0	0	0	0	0	100	0	100	0
6	Jaring Lingkar	Mini Purse Seine (Gae)	0	91	9	25	0	0	50	25	42	58
		Kapal Bagan	0	0	100	0	0	100	0	0	100	0
7	Jaring Angkat	Bagan Tancap/Apung	100	0	0	100	0	0	0	0	-	-
		Sungkur	100	0	0	86	0	0	14	0	-	-
		<b>Rata-Rata</b>	67	26	7	32	5	22	30	11	66	34

Source: Questionnaire processed data

South Bangka Regency as a coastal area with the fisheries sector as the leading sector (Table 4) and has 18 types of response results as featured commodities (Table 5) is inseparable from the variety of fishing equipment used by fishermen. Table 6 presents several types of classification of fishing gear used by fishermen in South Bangka Regency. Of the 7 fishing gear classifications, there are 15 types of fishing gear used. Most types of fishing gear used are on ships with a machine size of <5 GT, some of the fishing gear include trawl, bottom gillnet, middle gillnet, trap, folding traps, wire traps, trolling lines, squid fishing rods, basic fishing rods, liftnet and sungkur.

The size of the ship in South Bangka Regency is divided into 3 classes, namely under 5 GT, 5 to 10 GT and above 10 GT. The type of fishing gear used in ships under 5 GT is 67%, namely trawl hela, bottom gillnet, bawal nets, trap class, all fishing lines, liftnet and sungkur. The type of fishing gear used in vessels of 5-10 GT category is 26%, including trawls, cantrang, bottom gillnet, middle net, pari net and mini purse seine. While the ship with engine size > 10 GT is 7%, the type of fishing gear used is bottom gillnet and ship chart.

There are 2 types of fishing gear included in the classification of trawl nets and trawl trawls, namely trawl and cantrang fishing gear in South Bangka Regency. According to [13] trawling is a fishing tool that has a target species both for catching fish and for shrimp. Trawling is an active fishing gear, where the fishing gear is pulled by a ship that moves to chase demersal fish hordes so that it enters the net, therefore the speed of the vessel in pulling fishing gear is generally greater than the average swimming speed caught fish. Besides that, the form of fishing gear Trawling has a range board on both sides of the wing which serves to open the mouth of the net and lead the target towards the mouth of the net or prevent the fish from running towards the left and right sides of the fishing gear and later the catch will gather in the bag (Cod end) (FAO) [14].

Trawlers interfere with benthic communities, eliminating the most vulnerable organisms and modifying habitat structure. While the cumulative effects of disruption resulting from commercial trawling activities are poorly understood, several studies show that chronically disturbed communities are dominated by opportunistic organisms [15].

The trawler is a fishing tool that is banned according to the regulation of Maritime and Fisheries Metry No. 2 of 2015 concerning the prohibition on the use of trawl and trawl fishing gear. The existence of trawlers in South Bangka Regency is felt to be very detrimental to the fisheries sector. The use of the classification of fishing gear can cause a decrease in fish resources and threaten the environmental sustainability of fish resources [16]. Therefore, a good management strategy is needed to reduce or even eliminate the use of fishing gear in the South Bangka Regency.

The use of trawl fishing equipment was found in 3 sub-districts namely Lepong District, Toboali District and TukakSadai District. The use of this fishing gear in LepongSubdistrict is located on PulauTinggi, ToboaliSubdistrict located in Ketapang Village, precisely in Sukadamai Hamlet. Whereas, there is in Sadai Village in TukakSadaiSubdistrict.

The Directorate of Production of the Directorate General of Fisheries (2000) determines the factors that must be considered by fishing experts in carrying out environmentally friendly fishing. These criteria are:

- Criteria for environmentally friendly fishing, "determine the fishing gear that is in productive operation and the catch has high economic value. Therefore fishing experts need to pay attention to several things contained in this point, including: fishing equipment must be selective; does not damage resources and the environment; minimize waste or discard fish";
- Fishing ground, "Determination of fishing grounds that are in accordance with the size of the vessel and the type of fishing gear that is operated, the need to regulate fishing operations in the field, is expected to be a conflict between avoidable fishermen groups";
- Utilization of fisheries resources must be managed fairly, "This is intended so that the contribution of economic nutrition and social welfare of the population can be increased";
- Regulation, "It should be noted that there are regulations that regulate the operation of fishing operations that are environmentally friendly and responsible.

*D. Types of Fishing Equipment that Catch the Leading Fish in South Bangka Regency*

**TABLE 7. TYPES OF FISHING EQUIPMENT THAT CAPTURE THE MAIN COMMODITIES OF CAPTURE FISHERIES SOUTH BANGKA REGENCY**

No	Fish Name	Latin Name	Gear
1	Talang-Talang	<i>Scomberoides tala</i>	JaringInsangHanyut
2	Kembung	<i>Rastrelliger brachysoma</i>	JaringInsangHanyut
3	Gerot	<i>Pomadasysmaculatum</i>	Pancing
4	Peperek	<i>Leiognathusequulus</i>	Trawl, Cantrang
5	BijiNangka	<i>Lutjanus campechanus</i>	Serok, Trawl
6	Selanget	<i>Anodontostoma selangkat</i>	Serok, Trawl, Cantrang
7	Tenggiri	<i>Scomberomoruscommersonii</i>	PancingTonda, pancingcumi, pancingdasarJaringInsang, cantrang
8	TenggiriPapan	<i>Scomberomorusguttatus</i>	PancingTonda, pancingcumi, pancingdasar, JaringInsang, cantrang
9	EkorKuning	<i>Caesiocuning</i>	Trawl, Cantrang
10	Baronang	<i>Siganus sp.</i>	Bubu
11	IkanSebelah	<i>Psettodes erumei</i>	Trawl, Cantrang
12	Cumi	<i>Loligosp</i>	Bagantancap, kapalbagan, pukatcincindanbaganapung
13	BawalHitam	<i>Parastromateus niger</i>	JaringBawaldanCantrang
14	BawalPutih	<i>Pampus argenteus</i>	JaringBawaldanCantrang
15	Kurisi	<i>Nemipterus furcosus</i>	Pancing, trawl, cantrang
16	Kuro	<i>Polydactylusoctonemus</i>	Jaringinsanghanyut, serok
17	TigaWaja	<i>Pennahiasp</i>	<i>gillnet</i>
18	UdangDogol	<i>Metapenaesusensis</i>	Serok, trawl, sungkur

Source: Questionnaire processed data

Several types of fishing gear that catches featured fish species in South Bangka Regency are presented in Table 7, including drifting gill nets, fishing rods, trawls, cantrang, drag, trolling lines, squid fishing rods, basic fishing rods, traps, step charts, ship charts, trawl rings, floating charts, bawal nets, gillnet and sungkur. This type of fishing gear is based on the Regulation of the Minister of Marine and Fisheries of the Republic of Indonesia Number KEP.06 / MEN / 2010 concerning Fishing Equipment in Fisheries Management Areas of the Republic of Indonesia into 6 groups / categories of fishing gear, including, a) trawls are fishing gear groups are made of marsupial nets that are equipped with or without net mouth opening tools and their operation is carried out on the side or behind the speeding ship; b) trawling is a cod-end fishing gear group without net mouth opening, operating by circling a schooling fish and pulling it to a ship that is anchoring / anchoring or ashore /

beach through both wings and drawstring; c) gill nets are a rectangular group of nets equipped with buoys, ballast, top rope and bottom rope or bottom rope without catching pelagic and demersal fish; d) Traps are groups of fishing gear made of nets, and / or iron, wood, bamboo, cylindrical, trapezoidal and other forms operated passively on the base or surface of the water, equipped or without bait; e) fishing rod is a group of fishing gear consisting of rope and fishing line and / or the like; f) lift nets are a group of fishing gear made of rectangular shaped nets with bamboo frames or other materials in order to catch pelagic fish.

The variety of types of fishing gear used to support the catch of the main commodities so as to provide a great opportunity for fishermen. This can be seen from the species of fish caught, including species that have high economic value. So that economically this condition can contribute to welfare for fishermen.



Fig. 1 Fishing Ground Type of Outstanding Fish in South Bangka Regency

*E. Fishing Ground Type of Outstanding Fish in South Bangka Regency*

The large number of main fisheries products in South Bangka Regency encourages researchers to find out which fishing locations can become a reference in processing fisheries resources in the future. Figure 1 shows the location of the fishing ground of the featured fish species based on fisherman information and ground check ground. Based on the analysis and review of aspects of the potential of pelagic and demersal fish resources, it is very important to explore and map these potential resources as regional comparative advantages to improve the welfare and income of the people of South Bangka Regency. The spread of fishing ground 18 featured fish species generally ranges from 0-12 miles from the mainland coastline of South Bangka Regency, in addition there are also in the Java Sea, the waters of Central Bangka Regency and the Bangka Strait.

Information about fishing ground is a factor that determines the efficiency and effectiveness of fishing [17]. Therefore, it is necessary to regulate fishing gear that do fishing in Bangka waters. This arrangement is intended to avoid friction between trawl fishermen, purse seine (gae), fishing rods and gillnet fishermen. Gillnet fishing gear and boat charts with larger fleets need to be directed to capture other areas.

IV. CONCLUSION

From the results and discussion above can be concluded:

1. There are 18 types of fish caught by fishermen which are the leading commodities in South Bangka Regency.
2. There are 15 types of fishing equipment that enter into 7 classes in the South Bangka Regency. There are prohibited fishing gear that are included in trawl and trawl trawl classes.

3. The spread of fishing ground 18 featured fish species generally ranges from 0-12 miles from the mainland coastline of South Bangka Regency, in addition there are also in the Java Sea, the waters of Central Bangka Regency and the Bangka Strait.

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REFERENCES

- [1] DinasPertanianPangandanPerikananKabupaten Bangka Selatan. 2017. *RencanaStrategisPerikananKabupaten Bangka Selatan 2018-2043*. DinasPertanianPangandanPerikananKabupaten Bangka Selatan.
- [2] Bendavid-Val, Avrom. 1991. *Regional and Local Economic Analysis for Practitioners*. Fourth Edition. Westport, Connecticut:
- [3] Hoover, Edgar and Frank Giarratani. 1984. *An Introduction to Regional Economics*. Third Edition. New York: Alfred A. Knopf.
- [4] Hoddi, A. H., & Rombe, M. B. (2011). *ANALISIS PENDAPATAN PETERNAKAN SAPI POTONG DI KECAMATAN TANETE RILAU, KABUPATEN BARRU*. FakultasPeternakan UNHAS.
- [5] Tongco, M. D. C. (2007). *Purposive sampling as a tool for informant selection*. Ethnobotany Research and applications, 5, 147-158.
- [6] Bernard, H.R. 2002. *Research Methods in Anthropology: Qualitative and quantitative methods*. 3rd edition. AltaMiraPress ,Walnut Creek, California.
- [7] Lewis, J.L. & S.R.J. Sheppard. 2006. Culture and communication: can landscape visualization improve forest management consultation with indigenous communities? *Landscape and Urban Planning* 77:291-313.
- [8] Garcia, G.S.C. 2006. The mother – child nexus: knowledge and valuation of wild food plants in Wayanad, Western Ghats, India. *Journal of Ethnobiology and Ethnomedicine* 2:39.
- [9] Gustad, G., S.S. Dhillon& D. Sidibe. 2004. Local use and cultural economic value of products from trees in the parklands of the municipality of Cinzana, Mali. *Economic Botany* 58:578-587.
- [10] Jarvis, M.C., A.M. Miller, J. Sheahan, K. Ploetz, J. Ploetz, R.R. Watson, M.P. Ruiz, C.A.P. Villapan, J.G. Alvarado, A.L. Ramirez & B. Orr.

2004. Edible wild mushrooms of the Cfre de Perote Region, Veracruz, Mexico: an ethnomycological study of common names and uses. *Economic Botany* 58:S111-S115.
- [11] Campbell, D.T. 1955. The informant in quantitative research. *The American Journal of Sociology* 60:339-342.
- [12] Seidler, J. 1974. On using informants: a technique for collecting quantitative data and controlling measurement error in organization analysis. *American Sociological Review* 39:816-831.
- [13] Tremblay, M.-A. 1957. The key informant technique: a nonethnographic application. *American Anthropologist* 59:699-701.
- [14] Arikunto, S. (2002). Metodologi penelitian.
- [15] Sarwono, J. (2012). Metode Riset Skripsi Pendekatan Kuantitatif (Menggunakan Prosedur SPSS): Tuntunan Praktis dalam Menyusun Skripsi.
- [16] Basuki, Agus Tri dan Utara Gayatri. 2009. Penentuan Sektor Unggulan dalam Pembangunan Daerah: Studi Kasus di Kabupaten Ogan Komering Ilir. *Jurnal Ekonomidan Studi Pembangunan*. 10 (1): 34 – 50.
- [17] Masniadi, R. 2012. Analisis Komoditas Unggulan Pertanian untuk Pengembangan Ekonomi Daerah Tertinggal di Kabupaten Sumbawa Barat. *Jurnal Ekonomika-Bisnis* Vol. 03 (01). Hlm. 51-64.
- [18] Susanto, H. 2014. Kajian Komoditas Unggulan, Andalandan Potensial di Kabupaten Grobogan. *Journal of Rural and Development* vol. 5(1). 18 hlm.
- [19] Budiharsono, S. (2001). Teknik analisis pembangunan wilayah pesisir dan lautan. Pradnya Paramita.
- [20] Adibrata, S., Kamal, M. M., & Yulianda, F. (2013). Daya Dukung Lingkungan untuk Budidaya Kerapu (Famili Serranidae) di Perairan Pulau Pongok Kabupaten Bangka Selatan. *Jurnal Pesisir dan Pulau-pulau Kecil*, 2(1), 43-58.
- [21] Monintja, D., & Yusfiandayani, R. O. Z. A. (2001). Pemanfaatan Sumber Daya Pesisir dalam Bidang Perikanan Tangkap. *Bogor, 29 Oktober-3 November 2001*, 56.
- [22] Subani, W. Dan H.R. Barus. 1989. Alat Penangkapan Ikan dan Udang Laut di Indonesia. *Jurnal Penelitian Perikanan Laut*. No. 50. Jakarta : BPPL-BPPP. Departemen Pertanian.
- [23] Organisasi Pangan dan Pertanian (FAO). 2005. Pedoman untuk Mengurangi Hasil Tangkapan Sampingan (HTS) pada Perikanan Pukat-hela (trawl) udang Perairan Tropis. *Chief Publishing Management Service Information Division*, FAO Via delle Terme di Caracalla 00100 Roma, Italia
- [24] De Juan, S., Thrush, S. F., & Demestre, M. (2007). Functional changes as indicators of trawling disturbance on a benthic community located in a fishing ground (NW Mediterranean Sea). *Marine Ecology Progress Series*, 334, 117-129.
- [25] Republik Indonesia, Peraturan Menteri Kelautan dan Perikanan No 2 Tahun 2015 tentang pelarangan penggunaan alat tangkap pukat hela dan pukat tarik.
- [26] Bukhari, B., Adi, W., & Kurniawan, K. (2017). PENDUGAAN DAERAH PENANGKAPAN IKAN TENGGIRI BERDASARKAN DISTRIBUSI SUHU PERMUKAAN LAUT DAN KLOOROFIL-a DI PERAIRAN BANGKA. *Jurnal Perikanan Tangkap: Indonesian Journal of Capture Fisheries*, 1(03).