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COMPOSITION OF THE CATCH FROM PURSE SEINE VESSELS LANDED AT THE TEGALSARI NUSANTARA FISHING PORT

Komposisi Hasil Tangkapan Kapal Pukat Cincin yang Didaratkan di Pelabuhan Perikanan Nusantara (PPN) Tegalsari

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ABSTRACT

The purse seine is one of the fishing gear types widely used to catch pelagic fish that tend to school. Fishing with this gear can result in a catch comprising several species of fish in varying proportions. This study aims to identify the species and determine the composition of the catch from the KM Bintang Utama 2, which was landed at the Tegalsari Nusantara Fisheries Port (PPN). The study was conducted from March to May 2026 using a purposive sampling method, whereby the vessel KM Bintang Utama 2 was selected as the subject of the study. Data were collected through observation and recording of the catch by fish species and weight whilst monitoring the vessel's fishing operations. The data were analysed by calculating the percentage composition by weight of each species relative to the total catch. The results showed that the total catch of the KM Bintang Utama 2 amounted to 69.53 tonnes, comprising 20 species or catch groups. The catch composition with the largest proportion was skipjack tuna at 17.26 per cent, followed by flying fish and skipjack mackerel at 14.38 per cent each, then siro fish at 10.07 per cent, and layur fish at 9.35 per cent. Collectively, these five species accounted for approximately 65.44 per cent of the total catch. The research findings indicate that the catch of the KM Bintang Utama 2 was dominated by several species of pelagic fish that are classified as economically important. The composition illustrates the characteristics of the catch from the purse seine vessel KM Bintang Utama 2 during the observed fishing period and in the observed fishing areas.

Keywords: Pelagic fish, Catch composition, Multispecies fisheries, Tegalsari NFP

ABSTRAK

Pukat cincin merupakan salah satu alat penangkapan ikan yang banyak digunakan untuk menangkap ikan pelagis yang memiliki sifat bergerombol. Kegiatan penangkapan dengan alat tangkap tersebut dapat menghasilkan tangkapan yang terdiri atas beberapa jenis ikan dengan

proporsi yang berbeda. Penelitian ini bertujuan untuk mengidentifikasi jenis dan mengetahui komposisi hasil tangkapan KM Bintang Utama 2 yang didaratkan di Pelabuhan Perikanan Nusantara (PPN) Tegalsari. Penelitian dilakukan pada bulan Maret-Mei 2026 dengan metode *purposive sampling* yaitu memilih kapal KM Bintang Utama 2 sebagai objek penelitian. Data dikumpulkan melalui pengamatan dan pencatatan hasil tangkapan berdasarkan jenis dan berat ikan dengan mengikuti operasional penangkapan ikan di kapal. Data dianalisis dengan menghitung persentase komposisi berat masing-masing jenis terhadap total hasil tangkapan. Hasil penelitian menunjukkan bahwa total hasil tangkapan KM Bintang Utama 2 mencapai 69,53 ton yang terdiri dari 20 jenis/kelompok hasil tangkapan. Komposisi hasil tangkapan dengan proporsi terbesar Adalah ikan tongkol 17,26%, ikan layang dan cakalang dengan proporsi masing-masing sebesar 14,38%, selanjutnya ikan siro sebesar 10,07%, dan ikan layur sebesar 9,35%. Kelima jenis tersebut secara kumulatif menyumbang sekitar 65,44% dari total hasil tangkapan. Hasil penelitian menunjukkan bahwa hasil tangkapan KM Bintang Utama 2 didominasi beberapa jenis ikan pelagis yang termasuk kedalam ikan ekonomis penting. Komposisi tersebut menggambarkan karakteristik hasil tangkapan kapal pukat cincin di KM Bintang Utama 2 selama periode dan daerah penangkapan yang diamati.

Kata Kunci: Ikan pelagis, Komposisi hasil tangkapan, Perikanan multispesies, PPN Tegalsari

INTRODUCTION

The Tegalsari Archipelago Fishing Port (Pelabuhan Perikanan Nusantara/PPN Tegalsari) is a fishing port on the North Coast of Java that serves as a landing site for catches from various fishing activities. The single-vessel purse seine is one of the fishing gears used in this region, typically employed to target schooling pelagic fish. Purse seine fishing operations yield large volumes of catch, which may consist of a variety of species—encompassing both primary target species and non-target species. Capture fisheries play a vital role in providing food sources, employment opportunities, and income for coastal communities. However, the intensification of fishing activities must be balanced with information regarding the characteristics of the catch to support the responsible utilization of fishery resources. The composition of the catch provides insight into the types and proportions of fish captured, serving as foundational data for evaluating the catch characteristics associated with a specific fishing gear.

The purse seine is a widely used fishing gear designed to optimize the capture of schooling pelagic fish, often resulting in relatively large catches. Due to this high effectiveness, the catch from a purse seine is rarely limited to a single species; rather, it frequently includes a mix of both target and non-target species. In operation, a purse seine is deployed to encircle a school of fish; a purse line (drawstring) is then pulled to close the bottom of the net, concentrating the catch within the enclosure. This operational method enables the purse seine to secure large quantities of fish, often comprising multiple species (Bubun et al., 2015; Istrianto et al., 2021; Khikmawati et al., 2024; Kuswoyo & Ilhamdi, 2013; Tangdipau & Silooy, 2022). Research on purse seine fisheries at the Tegal fish landing site indicates that the catch consists of various pelagic fish species, with the shortfin scad (Decapterus macrosoma), Bali sardinella (Sardinella lemuru), and Indian mackerel (Rastrelliger kanagurta) being among the dominant species (Nazarullah et al., 2022). Studies on purse seine fisheries landing their catch at the Muncar Coastal Fishing Port (PPP Muncar) show that the Bali sardinella (Sardinella lemuru) is the most dominant species, accounting for 77.83% of the total catch, while the shortfin scad and other species like the striped mackerel (Rastrelliger brachysoma) make up the remainder of the catch (Iskandar et al., 2024). Other research conducted in the waters of Karang Jeruk, Tegal, further demonstrates that purse seine fisheries exhibit diverse productivity and catch composition (Yusfiandayani et al., 2023).

Catch composition provides essential information for identifying the types and proportions of species obtained during fishing activities. Variations in composition can reveal which fish species are predominantly caught, as well as the presence of non-target species within fishing operations. Studies on the catch composition of purse seine fisheries across various regions in Indonesia indicate that the types and proportions of the catch vary depending on the conditions of the fishing grounds, the season, and the specific characteristics of the fishing operations (Anggriani et al., 2016; Syahputri et al., 2025). Therefore, data on catch composition at the individual vessel level is necessary to provide a more specific overview of the catch obtained during fishing operations. Furthermore, the presence of various non-target catch species indicates that fishing activities can lead to the capture of a wide range of other fishery resources in coastal areas; therefore, information regarding the diversity and composition of these catches is essential for providing a comprehensive picture of how fishery resources are utilized (Sari & Wibowo, 2023; Zairion et al., 2019).

This study focuses on examining the catch composition of a single-vessel purse seine operation, using the vessel KM Bintang Utama 2 as a case study. This approach allows for a more targeted observation of the catch obtained during fishing operations. KM Bintang Utama 2 was selected as the subject of this study because it employs a single-vessel purse seine fishing gear, operates within the WPPNRI 712 (Fisheries Management Area of the Republic of Indonesia 712), and lands its catch at the Tegalsari Coastal Fishing Port (PPN Tegalsari). Given these conditions, this study was conducted to gain an overview of the catch composition produced by a single purse seine vessel. The research aims to identify the types of catch and analyze their percentage composition for KM Bintang Utama 2 with the catch being landed at PPN Tegalsari.

RESEARCH METHODS

The research was conducted from March to May 2026. The study focused on a single-vessel purse seine operation, specifically the KM Bintang Utama 2—a vessel belonging to PT. Wiraguna Jaya Makmur—based at the Tegalsari National Fishing Port (PPN Tegalsari) in Tegal City, Central Java Province, Indonesia.

Tools and materials used in this research included stationery, a camera or mobile phone for documentation, data recording sheets, a ruler, and samples of the catch. Observations were carried out by accompanying the fishing operations of the KM Bintang Utama 2, which utilizes a single-vessel purse seine system. Data collection and observation took place throughout the research period to gather information on the species and quantities of the catch, as recorded during the landing process at PPN Tegalsari. For this study, an "observation unit" is defined as a single fishing operation, or "setting." A "setting" encompasses the entire sequence of purse seine operations: encircling a school of fish, hauling the net, and bringing the total catch on board. Each setting was recorded as an individual observation unit, documenting the time and conditions of the operation, the fishing location, and the species and quantity of the catch obtained. During a single fishing trip, the vessel typically performs approximately two settings per day. Data collection employed a purposive sampling method, with the KM Bintang Utama 2 serving as the case study unit. The vessel was selected based on its alignment with the research objectives: it utilizes a purse seine, operates within the WPPNRI 712 (Fisheries Management Area of the Republic of Indonesia 712), and lands its catch at PPN Tegalsari.

The research data consists of primary data obtained through direct observation of the fishing activities and catches of the KM Bintang Utama 2, supplemented by documentation of the catch during each landing. Observations were conducted by following the vessel's fishing operations throughout the duration of the study. The data recorded includes the fish species, the quantity of the catch, and the weight of the catch for each fishing and landing operation.

The weight of the catch is measured using weighing equipment available on the vessel and/or at the landing facility. The catch is weighed by species following handling and sorting. Weighing is performed on the portion of the catch that can be weighed directly, and the results are recorded on an observation sheet. In cases where the volume of the catch is too large to be weighed in its entirety, the weight is recorded based on the actual measurements available at the time of landing, with no additional estimations made. Consequently, the weight values used in the analysis are those recorded during the observation process. The precision of the weighing equipment is documented based on the specifications of the tools used during data collection.

Identification of fish types is carried out based on morphological characteristics that can be observed directly, including body shape, fin shape and position, color patterns, head and mouth shape, as well as other morphological characteristics that are distinguishing characteristics between types. Identification was further verified using relevant fish taxonomic references, especially marine fish species identification databases and literature. Identification is carried out at the species level if the morphological characteristics of the samples allow them to be differentiated confidently. If the characteristics of the sample do not allow to confirm identification to the species level, the taxon is recorded at the genus or family level and is not forced to be assigned to the species level.

Each observed catch is documented using a camera or cell phone to support the identification verification process. This documentation is used as comparison material for the morphological characteristics and taxonomic references used. The catch is then grouped based on the taxonomy that has been identified and the weight recorded for each fishing or landing activity.

The catch data from each fishing activity is then compiled to obtain the total weight of the catch based on the type of fish during the observation period. Data was tabulated and processed using Microsoft Excel. Analysis includes identifying the type of catch, calculating the number and weight of the catch, as well as the percentage composition of each type of fish based on the weight of the catch.

The percentage composition of the catch is calculated based on the ratio of the weight of the catch of each type of fish to the total weight of the entire catch using the following equation:

$$P_i = \frac{W_i}{W_T} \quad (1)$$

Note:
P_i = percentage composition of catch of fish species i (%);
W_i = weight of catch of fish species i (kg);
W_T= total weight of the entire catch (kg).

The calculation results are presented in tables and graphs to show the types of fish and the percentage composition of the catch landed by the vessel KM Bintang Utama 2 at the Tegalsari Oceanic Fishing Port (PPN Tegalsari). Fish species with the highest weight percentage are categorized as the most dominant in the catch throughout the observation period.

In addition to the analysis covering the entire observation period, catch data from each individual fishing operation (setting) are used as supplementary information to examine variations in composition and the consistency of dominance across different operations. The percentage composition for each setting is calculated based on the weight of each fish species relative to the total weight of the catch for that specific setting. These results are used to illustrate shifts in the dominance of the species caught across various fishing operations throughout the observation period.

RESULT

Purse seine ship with one ship KM Bintang Utama 2 and the ship specifications can be seen in Figure 1 and Table 1.



Figure 1 Purse seiner vessel KM Bintang Utama 2.

Table 1. Specifications of the purse seiner vessel KM Bintang Utama 2

No	Vessel Data	Specification
1	Vessel Name	KM. Bintang Utama 2
2	Owner's Name	Suratno
3	Number of crew members	38 People
4	Type or Kind of Vessel	Purse seine fishing vessels
5	Ship Construction Materials	Fiberglass-coated wood
6	Alignment Mark	TEGAL/GT. 98 No.5368/N
7	Steering System	Manual
8	Type of Prime Mover	Nissan Engine
9	Engine Power	420 PK
10	Long (LOA)	28.5 Meter
11	Wide (B)	2 Meter
12	In (H)	2,7 Meter
13	Net tonnage	30 GT
14	Production year	2022

The vessel KM. Bintang Utama 2 is constructed primarily from teak wood and coated with fiberglass (Table 1). Its advantages include a relatively light weight, resistance to weather conditions, ease of maintenance, and a shorter production time (Wicaksono et al., 2024). The research vessel is powered by a 420 HP Nissan main engine that runs on diesel fuel. During a single fishing operation, the vessel consumes approximately 27 drums of diesel, with each drum having a capacity of 30 liters. The distance covered by the vessel during fishing operations ranges from 350 to 400 nautical miles (NM). Purse seine vessels typically conduct fishing operations once every two months. The deployment of rumpon (fish aggregating devices) takes place around 09:00 WIB (Western Indonesian Time), followed by the deployment of the net at 21:00 WIB, with further operations continuing at 04:00 WIB. KM. Bintang Utama 2 is also equipped with a crane to facilitate the handling of the catch and other heavy equipment. The composition of the catch aboard the purse seiner KM. Bintang Utama 2 is presented in Table 2.

Table 2. Catch composition of the purse seine vessel KM. Bintang Utama 2

No.	Fish Name	Scientific Name	Weight (kg)	Composition (%)	Price (Rp/Kg)
1.	Scad	Decapterus spp.	10.000	14.38	25.000

2.	Mackerel	Rastrelliger spp.	2.000	2.88	38.000
3.	Bentong Selar	*Selaroides* spp.	2.000	2.88	32.000
4.	Burat-barat Fish	Aluterus monoceros	1.500	2.16	38.000
5.	Komo tuna	Euthynnus affinis	12.000	17.26	25.000
6.	Squid	Loligo sp.	800	1.15	80.000
7.	Hairtail Fish	Trichiurus spp.	6.500	9.35	15.000
8.	Mackerel	Scomberomorus commerson	1.500	2.16	63.000
9.	Pirik Fish	Lagusia micracanthus	500	0.72	3.000
10.	White pomfret	Pampus argenteus	1.500	2.16	40.000
11.	Siro Fish	Amblygaster sp.	7.000	10.07	13.000
12.	Skipjack tuna	Katsuwonus pelamis	10.000	14.38	20.000
13.	Barracuda	Sphyraena spp.	1.000	1.44	14.000
14.	Needlefish	Famili Hemiramphidae	4.000	5.75	19.000
15.	Threadfin Bream	Nemipterus sp.	2.000	2.88	37.000
16.	Rabbitfish	Siganus sp.	2.000	2.88	15.000
17.	Kawang Fish	NA	1.000	1.44	30.000
18.	Kimpul Fish	NA	2.000	2.88	20.000
19.	Rainbow Runner	Elagatis bipinnulata	1.500	2.16	8.000
20.	Hooded Fish	NA	734	1.06	11.000
Total			69534	100	

The catch composition of the vessel KM Bintang Utama 2 reveals that several types of fish were captured during purse seine operations (Table 2). Variations in the quantity of each type indicate that every species contributes differently to the total catch. The percentage composition, based on weight, is used to illustrate the proportion of each fish species relative to the entire catch obtained during the observation period. The findings show that the catch of KM Bintang Utama 2 consists of various pelagic fish, including scad (Decapterus spp.), mackerel (Rastrelliger spp.), yellowstripe scad (Selaroides spp.), sardines (Sardinella spp.), and other pelagic species. Species with the highest percentages represent the dominant components of the catch, while those with lower percentages contribute relatively less to the total.

The research results indicate that tuna made the largest contribution, amounting to 12,000 kg or 17.26% of the total catch (Table 2). This is followed by scad and skipjack tuna, each accounting for 10,000 kg or 14.38%. Siro (a type of sardine/herring-like fish) contributed 7,000 kg (10.07%), while hairtail accounted for 6,500 kg (9.35%). Additionally, contributed 4,000 kg (5.75%). Other species each contributed less than 3% to the total catch.

Observations of individual fishing operations reveal variations in catch composition. Although tuna provided the largest cumulative weight over the entire observation period, it was not necessarily the species with the highest proportion in every single fishing operation. In some fishing operations, other species—such as frigate tuna and skipjack tuna—account for a larger proportion of the catch than mackerel tuna. This variation indicates that the dominance of mackerel tuna in the total catch is a cumulative reflection of the entire study period and does

not necessarily imply dominance in every individual fishing operation. Documentation of the various fish species caught by the vessel KM Bintang Utama 2 during the observation period is presented in Figure 2.



Scad (*Decapterus* spp.)



Burat-barat Fish (*Aluterus monoceros*)



White pomfret (*Pampus argenteus*)



Mackerel (*Scomberomorus commerson*)



Komo tuna (*Euthynnus affinis*)



Bentong Selar (*Selaroides* spp.)



Skipjack tuna (*Katsuwonus pelamis*)



Mackerel (*Rastrelliger* spp.)



Squid *(Loligo* spp.)



Hairtail Fish (*Trichiurus lepturus*)

Figure 2 Catch from the purse seiner vessel KM Bintang Utama 2

Research findings from the fishing operations of KM Bintang Utama 2 indicate that the targeted catch consists of scad, mackerel, bigeye scad, oil sardine, and tuna (mackerel tuna). Meanwhile, the non-target catch obtained during these operations includes Spanish mackerel, barracuda, hairtail, squid, black pomfret, and dolphinfish (mahi-mahi).

DISCUSSION

Observations of the catch from the vessel KM Bintang Utama 2 revealed a total haul of 69,534 kg (69.53 tonnes), comprising 20 different groups of fish species and other catch components. This total was obtained from a single fishing trip, during which the vessel typically performed two "settings" (net deployments) per day—one in the morning and one at night. The composition of the catch was calculated based on the weight of each species group relative to the total weight of the entire catch. This weight-based approach is commonly used to illustrate the contribution of each species to the total catch in purse seine fisheries (Mubarok, 2023; Nazarullah et al., 2022).

The prevalence of frigate tuna (Auxis thazard), scad (Decapterus spp.), and skipjack tuna (Katsuwonus pelamis) indicates that the catch of KM Bintang Utama 2 is dominated by pelagic fish species that exhibit schooling behavior. This aligns with the operational nature of purse seine gear, which is specifically designed to target schooling fish. Asni et al. (2022) explain that purse seines are intended for catching schooling fish; consequently, the catch composition may include various pelagic species that coexist within the same aggregation. Research on purse seine fisheries in the Java Sea also indicates that catches can be dominated by small pelagic fish, particularly scads, mackerels, and sardines (Mubarok, 2023).

The high proportion of frigate tuna (17.26%) highlights its significance as a key component of the catch for KM Bintang Utama 2. Tuna species, in general, have also been reported as a common catch in Indonesian purse seine fisheries (Mardiah et al.). (2021) reported that purse seine catches can consist of economically important pelagic species, such as tuna, skipjack, and other tuna-like species. Research on multispecies-based purse seine management also identifies tuna, scad, mackerel, and Spanish mackerel as key components within the purse seine catch community (Octoriani & Boer, 2026). In this study, the proportion of Euthynnus affinis (mackerel tuna) accounted for 17.26% of the total catch during the research period, which spanned the eastern monsoon season; the fishing grounds covered the waters around Karimunjawa and East Java, including the area near Bawean Island. Fishing operations were conducted using purse seines, with net-setting activities taking place during both the morning and night. These conditions can lead to catch compositions that differ from those of purse seine fisheries operating in other regions, seasons, or under different operational patterns. Such

variations in composition across different locations and time periods may result in higher or lower proportions of specific fish species—including Euthynnus affinis—compared to findings from other studies.

Scad (Decapterus spp.) represents another significant component, amounting to 10,000 kg, or 14.38% of the catch. This substantial proportion indicates that scad plays a major role in the overall catch composition. This finding aligns with research on purse seine fisheries in the Tegal region and the Java Sea, which shows that scad and other small pelagic species are key components of purse seine catches. Nazarullah et al. (2022) reported that purse seine catches landed in Tegal are dominated by small pelagic fish, including scad, oil sardine (Sardinella lemuru), and mackerel. Research on the dynamics of purse seine fishing grounds in the Java Sea also indicates that the composition of the catch can vary by fishing area, with scad (ikan layang) being one of the primary components of the catch (Chodriyah & Wiyono, 2011).

In addition to scad, skipjack tuna (cakalang) also holds a significant share of the total catch, amounting to 10,000 kg or a 14.38% contribution. The presence of skipjack tuna in relatively high quantities indicates that the vessel's catch consists not only of small pelagic fish but also includes larger pelagic species. Puri et al. (2017), for instance, reported that purse seine catches can comprise skipjack tuna, other tuna species, scad, mackerel, and various other pelagic fish, with proportions varying according to the type of purse seine used and the fishing grounds. Other research on purse seine fisheries in Indonesia has also shown that skipjack tuna can be a dominant component of the catch, particularly in fishing areas associated with schools of large pelagic fish (Fitri et al., 2024).

The presence of various species in relatively small proportions demonstrates that the catch of the vessel KM Bintang Utama 2 is diverse, or multispecies in nature. This is a characteristic typical of purse seine fisheries, as the gear operates by encircling schools of fish within a given area, meaning that different species inhabiting the same school or habitat can be captured simultaneously. Octoriani and Boer (2026) also emphasize that purse seine fisheries can capture multiple groups of fish at once, making a multispecies-based management approach highly relevant.

The study results indicate that frigate tuna, scad, and skipjack tuna are the species that contribute the most to the total catch, accounting for 46.02% of the overall yield. When combined with Siro (a type of sardine/herring-like fish) and hairtail, these five species together contribute approximately 65.40% of the total catch. Thus, the majority of the catch by KM Bintang Utama 2 is concentrated among a few primary species, while 15 other species collectively account for approximately 34.60%. This pattern indicates that, although the number of species caught is quite high, the overall composition remains dominated by a few species that contribute a relatively large share of the total weight.

The diversity in catch composition may also be linked to the characteristics of the fishing grounds, the season, oceanographic conditions, and the timing of fishing operations. Changes in environmental conditions can influence the distribution and migration of pelagic fish, causing the composition of purse seine catches to vary based on the time and location of fishing. Chodriyah & Wiyono (2011) demonstrated that the composition of purse seine catches in the Java Sea is related to both the fishing grounds and seasonal changes. Therefore, the catch composition of KM Bintang Utama 2 in this study should be viewed specifically as a reflection of the catch conditions during the observed period and within the studied fishing grounds, rather than as a representation of the entire purse seine fleet at PPN Tegalsari.

The research findings indicate that the single-vessel purse seiner KM Bintang Utama 2 yields a catch dominated by pelagic fish, which are of significant economic value. The study shows that the vessel's catch is not dependent on a single species but rather consists of a combination of various pelagic resources harvested during fishing operations. This pattern aligns with other research on purse seine fisheries in the Java Sea and other Indonesian waters,

which consistently shows the dominance of a few key pelagic species alongside the presence of various other species (Mubarok, 2023; Nazarullah et al., 2022; Octoriani & Boer, 2026; Puri et al., 2017).

CONCLUSION

The catch composition of the purse seiner KM Bintang Utama 2, landed at the Tegalsari Archipelagic Fishing Port (PPN Tegalsari), consists of 20 species or groups, with a total weight of 69.53 tons. The catch is dominated by several key species—namely tuna (mackerel tuna), scad, skipjack tuna, as well as sardinella and hairtail—which collectively account for approximately 65.44% of the total catch. The catch is primarily composed of pelagic fish, which are economically significant commodities. These findings reflect the catch composition characteristics of KM Bintang Utama 2 during the observed period and within the specific fishing grounds studied; therefore, the results are not intended to be representative of all purse seiners operating at PPN Tegalsari or the entire fishing region. Nevertheless, this study provides preliminary information on the catch characteristics of a single-vessel purse seine operation and serves as a foundation for future research—incorporating a larger number of vessels, more fishing trips, broader fishing grounds, and an extended observation period—to obtain a more representative overview of the catch composition.

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REFERNCES

Anggriani, F. D., Boesono, H., & NND, D. (2016). Analisis Komposisi Hasil Tangkapan dan Keuntungan Usaha Penangkapan Purse Seine di Pelabuhan Perikanan Nusantara (PPN) Pekalongan, Jawa Tengah. *Journal of Fisheries Resources Utilization Management and Technology*, *5*(4), 80-87.

Asni, A., Kasmawati, K., & Sugianto, H. T. (2022). Studi Tingkat Keramahan Lingkungan Alat Tangkap Purse Seine di PPI Pontap Kota Palopo. *Journal of Indonesian Tropical Fisheries*, *5*(2), 228–240. https://doi.org/10.33096/joint-fish.v5i2.147

Bubun, R. L., & Mahmud, A. (2015). Komposisi Hasil Tangkapan Pukat Cincin Hubungannya Dengan Teknologi Penangkapan Ikan Ramah Lingkungan (Catch Composition of Purse Seine in Relation to Environmental Friendly Fishing Technology). *Marine Fisheries: Journal of Marine Fisheries Technology and Management*, *6*(2), 177-186.

Chodriyah, U., & Wiyono, E. S. (2011). Fishing Grounds Dynamics of Purse Seine Fisheries in the Java Sea. *Indonesian Fisheries Research Journal*, *17*(1), 21–27.

Fitri, A., Afiyah, N. N., & Winanda, T. D. (2024). Komoditi Hasil Tangkapan Utama (*Main Catch*) dan Tangkapan Sampingan (*Bycatch*) pada Alat Tangkap Pukat Cincin (*Purse Seine*) di PPS Kutaraja Lampulo. *Jurnal Penelitian Terapan Perikanan Kelautan*, *6*(1), 53–57.

Iskandar, M. D., Purboningrum, R., & Wahyu, R. I. (2024). Catch Composition and Size Distribution of Dominant Catch by Purse Seine Fishing at Muncar Coastal Fishing Port Banyuwangi. *Albacore*, *8*(2), 199–209.

Istrianto, K., Suharyanto, S., & Fitra, A. (2021). Analisis Pengaruh Kecepatan Lingkar dan Waktu Tarik Terhadap Hasil Tangkapan Pukat Cincin. *Jurnal Ilmu-ilmu Perikanan dan Budidaya Perairan*, *16*(2), 121-129.

Khikmawati, L. T., Sayuti, N. M. S., Rizal, A., & Hutapea, R. Y. F. (2024). Keragaan Hasil Tangkapan Pukat Cincin Pelagis Kecil (Studi kasus KMN. Diva Bahari) di Pelabuhan Perikanan Samudera (PPS) Kendari. *Jurnal Segara*, *19*(1), 49–57.

Kuswoyo, A., & Ilhamdi, H. (2013). Komposisi Hasil Tangkapan dan Aspek Penangkapan Purse Seine Bitung yang Berbasis Ponton di Laut Maluku dan Sulawesi. *Buletin Teknik Litkayasa Sumber Daya dan Penangkapan*, *11*(2), 57–60.

Mardiah, R. S., Roza, S. Y., & Miswar, E. (2021). Analysis of Catches Data Collection System at Fish Landing Base (PPI) of Dumai. *Depik*, *10*(2), 125–129.

Mubarok, M. I., S. B. I., P. R., & N. E. (2023). The Composition of the Catch of Mini Purse Seine in the Java Sea. *Coastal and Marine Journal*, *1*(1), 23–28.

Nazarullah, I., Maulina, I., Dewanti, L. P., & Khan, A. M. A. (2022). Composition and Catch Rate of Purse Seine Fishery Unit at the Tegal Fish Landing, Central Java. *Asian Journal of Fisheries and Aquatic Research*, *18*(4), 8–16. https://doi.org/10.9734/ajfar/2022/v18i430446

Octoriani, W., & Boer, M. (2026). Fisheries Management of Purse Seine Basedon Bioeconomy Multispecies in the Sunda Strait. *Journal of Tropical Fisheries Management*. https://doi.org/10.29244/jppt.9.2.89-95

Puri, W. R., Baskoro, M. S., & Wahju, R. I. (2017). Komposisi Hasil Tangkapan Purse Seine di Daerah Penangkapan Ikan WPP 572. *Skripsi*. IPB University.

Sari, I. P., & Wibowo, I. M. S. M. (2023). Hasil Tangkapan Utama dan Sampingan Alat Tangkap Purse Seine di Pelabuhan Perikanan Pantai (PPP) Bajomulyo, Jawa Tengah. *Jurnal Perikanan Unram*, *13*(2), 447–455.

Syahputri, R. V., Yani, A. H., & Zain, J. (2025). Komposisi Hasil Tangkapan Purse Seine Nelayan Pelabuhan Perikanan Samudera Belawan Provinsi Sumatera Utara. *Jurnal Ilmu Perairan (Aquatic Science)*, *13*(2), 309–313.

Tangdipau, A., & Silooy, F. (2022). Eksplorasi Model Lingkar Operasional Pukat Cincin KM. Velita di Perairan Manado Tua. *Jurnal Ilmu dan Teknologi Perikanan Tangkap*, *7*(2), 99. https://doi.org/10.35800/jitpt.7.2.2022.40151

Wicaksono, B. P., Hermawan, M., Soeboer, D. A., & Idnillah, M. (2024). Fiberglass Reinforced Plastic dengan Flame Retardant ATH sebagai Material Laminasi Kapal Perikanan Berbahan Kayu. *Albacore*, *8*(4), 361–368.

Yusfiandayani, R., Imron, M., Mawardi, W., Baskoro, M. S., Simbolon, D., Prasetiyo, S. L., ... & Wahdati, F. C. (2023). Persepsi Nelayan Terhadap Rumpon Portable di Pelabuhan Perikanan Pantai Larangan, Kabupaten Tegal. *Jurnal Teknologi Perikanan dan Kelautan*, *14*(1), 13-24.

Zairion, Sari, I. P., & Wardiatno, Y. (2019). Keragaman Sumberdaya Ikan Non-Target Perikanan Rajungan di Pesisir Lampung Timur. *Jurnal Biologi Tropis*, *19*(1), 8–13. https://doi.org/10.29303/jbt.v19i1.942