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PROCEEDING OF THE INTERNATIONAL SEMINAR



**Improving the State Foreign Exchange
through Strengthening Local Resources
For Development Ecotourism of Indonesia**

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Improving the State Foreign Exchange through Strengthening Local Resources
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PREFACE

Alhamdulillah, we asking thank you for God, because by more the mercy of God, the proceeding of international conference by theme "Improving the State Foreign Exchange through Strengthening Local Resources" can be finishe. The proceeding concist are the result of research and many idea from international conference participant, that they are precented in the conference, 6th-7th July 2011 at Poncowati Room, Patra Semarang Hotel.

In this time, The Government more support for Ecotourism building, because the sector is giving high income for state. On the other hand the ecotourism building reed preparing by many aspec. So, the "IBW" program making international conference about ecotourism.

So that, we asking thank you very much and the high honor for :

1. Dirjen DP2M Dikti
2. Governur Centra of Java
3. Bupati Pekalongan
4. Rector of Pekalongan University
5. Head of STIEPARI Semarang
6. The Presenter, and others

Because of them, the conference getting success. Finally, we hope the proceeding of international conference giving provit for the reader.

Thank you.

Tim IBW DP2M DIKTI
Pekalongan University
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BOAT SEINE MODIFICATION AS ENVIRONMENTAL PRESERVATION EFFORTS IN DISTRICT ECOTOURISM SUPPORT IN KENDAL

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Abstract

Boat seine is not considered environmentally friendly in the coastal. The design consists of wing / leader and body / cod end with the method of operation that is sweeping the waters provide the opportunity capture of the juvenile fish. Modification boat seine intended to make it a friendly environmental that can be caught a juvenile fish as an effort to preserve the environment.

Boat seine modification is located on the wing with nylon netting material change to 380 d/9, and the mesh size 7 mm. The catch is obtained from the seine boat modification is in the form of fish catches which have been economically feasible consumption/ length of first maturity (> 15 cm TL), and the lack of waste carried during the operation. It is an effort to conserve the environment (fisheries resources) and support the activities of ecotourism

Keywords: Boat seine modification, Environmental preservation, Ecotourism

Introduction

Resource conservation in coastal areas is very important to support the sustainability of a coastal ecosystem. During these coastal ecosystems, especially in Java's north (PANTURA) coast has suffered a damage which is quite high degradation. Exploitation of fish resources by using fishing gear design and method of operation is not environmentally friendly, is one of the factors triggering the destruction of ecosystems.

On the other hand by continuing to preserve the fish resources in coastal areas, not only about the sustainability of the ecosystem but contribute to the welfare of fishermen Kendal regency but participate in ecotourism activities on the Cahaya Beach, Kendal. Boat seine is one of the traditional fishing gear that is generally operated around the coast of Central Java's north coast,

especially Kendal regency. Boat seine design consists of the wings and cod end is made of waring (mesh size 2-3 mm). Fishing gear is operated by the target catch is rebon shrimp. But in fact, the boat seine catches not only rebon shrimp but coastal fish species belonging to the filter feeding by juvenile were also arrested. This is due to the boat seine design consisting of the wings and cod end is made of sheet waring a mesh size 2-3 mm so that the chances of the juvenile fish will come caught. When the case is allowed to continue, then the stock availability of fish resources in the coastal district is threatened expiration.

Boat seine design modification is one alternative to solving the problem as described above. The wing section of boat seine that serves as the leader changed the mesh size to 5-7 mm. It is intended that the size of juvenile fish that enter the catchable area of the tool is able to escape by way of the leader through the wall before entering the cod end

The use of boat seine modifications as one of nature conservation as the fish resources in coastal areas by making the boat seine fishing gear as an environmentally friendly, which ultimately support the ecotourism activities in the district of Kendal.

Research Methods

Methods research was descriptive, by making observations of the catch between the boat seine before modification (genenui boat seine) and boat seine modifications. The research was conducted from January to March 2010 in the waters of Spring Sikucing, Kendal regency, Central Java.

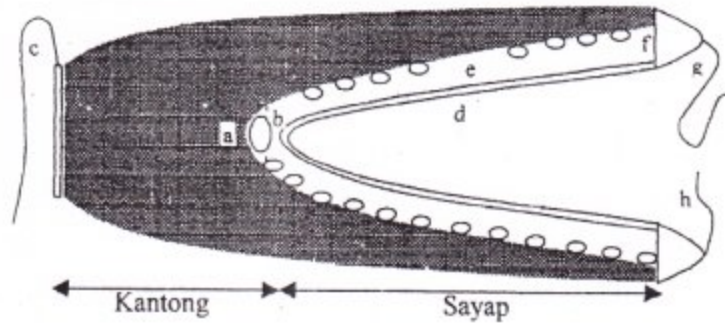
Table 1. The tools used during research activities

No	Nama Alat	Ketelitian	Kegunaan
1	1 unit <i>genenui boat seine</i>	-	
2	1 unit <i>boat seine</i> modification	-	
3	Weight	1 gr	Measure the weight of the catch
4	Mistar	1 mm	Measure the length of the catch

Results And Discussion

Genenui boat seine was designed by changing the wings. Consideration of changes to the design function in addition to the fish pass is not worth catching (juvenile) will also provide a smaller hydrostatic pressure that would ease the process of withdrawal of the net during hauling. The technical picture of the fishermen's boat seine (genenui seine boat) with a boat seine design modifications can be seen in Figure 1.

Design genenui boat seine fishermen's boat District Kendal



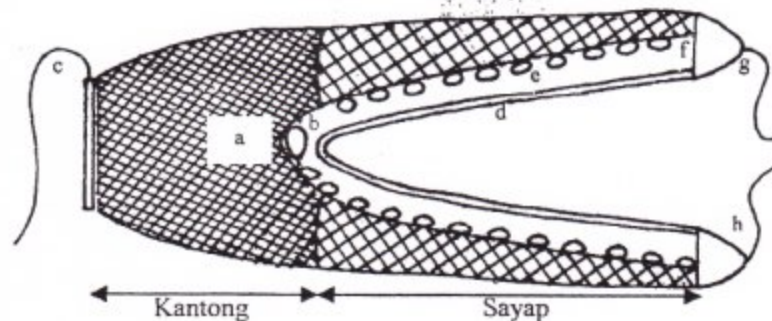
Note :

Cod end (PA (polyamide), mesh size 2-3 mm, length: 120 m)

wings (PA (polyamide), mesh size 2-3 mm, length: 10 m)

- | | | |
|-------------------|-------------------|-----------------|
| a. floating | d. ris line under | g. Slambar line |
| b. ris line upper | e. sinker | |
| c. kolor line | f. buffer timber | |

Design boat seine modification



Note :

Cod end (PA (polyamide), mesh size 2-3 mm, length: 120 m)

wings (PA (polyamide), mesh size 5-7 mm, length: 10 m)

- | | |
|-------------------|------------------|
| a. floating | e. sinker |
| b. ris line upper | f. buffer timber |
| c. kolor line | g. Slambar line |
| d. ris line under | |

Picture 2. Technical design *genenui boat seine* and *boat senine modification*

Boat seine wing section which was originally made of polyamide / PA (nylon) with number 210 d/9 changed number of threads to 380 d/9 with the same netting material nylon and mesh size to 7 mm. It is with the consideration that the number of threads is proportional to the mesh material on the wing that does not change its shape and size so that later modifications of design tools seine boats can still be operated in an optimal. While the mesh size is intended to function only as leader wing hordes of fish and juvenile fish can pass the measures included in the catch able area boat seine.

The catch of the second test gear can be seen in Figure 2 and Figure 3. The composition of the catch and the size of the total length can be seen in Table 1.

Figure 2. The composition of the catch genenui boat seine

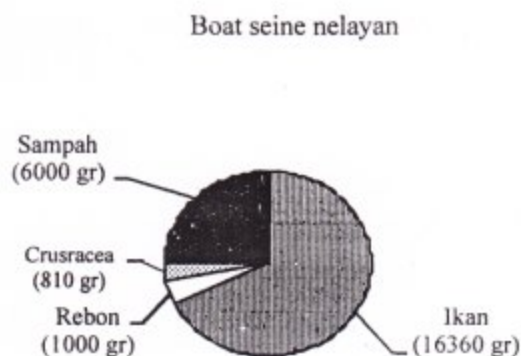


Figure 3. The composition of the catch boat seine modification

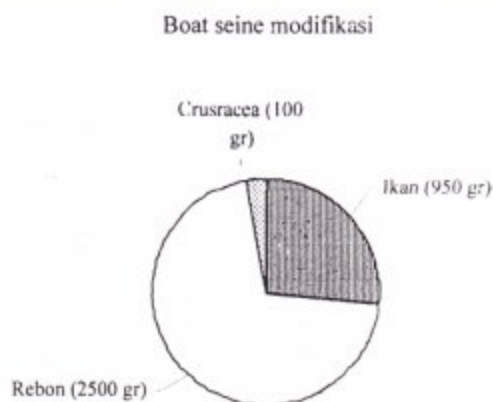


Table 2. The composition of the catch boat seine (genueui dan modifikasi)

No	Species	Genueui boat seine		Boat seine modifikasi	
		weight (g)	Total lenght (cm)	weight (g)	Total lenght (cm)
1	<i>Selar crumenophthalmus</i>	3800	10 – 12 cm	150	15 – 17 cm
2	<i>Tylosurus spp</i>	5000	8 – 10 cm	400	20 – 20 cm
3	<i>Anodontostoma spp</i>	2450	5 – 10 cm	200	18 – 22 cm
4	<i>Tetradontidae</i>	1110	11 – 12 cm	200	17 – 23 cm
	Total	12360		950	

Based on the composition of the catch in Figure 2 and Figure 3 shows that the design modifications catch rebon shrimp that is the target catch, while not so with genueui boat seine fishing gear. This indicates that the boat seine modification have the same ability to genueui boat seine to catch rebon shrimp. Based on setting the overall operation of the large number of arrests during the test phase was carried out 8 times, but the catch is relatively small. This is due rebon shrimp season occurs in January to March. For your consideration also that the boat seine fishing operations can be performed throughout the year, however the intensity and the catches are influenced by season and fishing ground. On the other hand, still carry a waste on the design genueui seine boat, it shows that the boat seine modification capable of removing the rubbish that goes in the catch able area of the wing that has a mesh size larger size.

The caught is a special group of economically important fish such as that shown in Table 2 show that catches the boat seine modification fewer in number compared with genueui boat seine fishing operations, but by looking at the total length of fish caught there is a very noticeable size difference. The total length catches fish on seine boat modification is longer than the fish genueui seine boat, indicating that the boat seine modification can pass the small size of fish that includes groups of juvenile and has been included in the group of fish length of maturity (Lm).

CONCLUSION

1. Design boat seine modifications is able to pass juvenile fish caught.
2. Design boat seine modifications can be categorized as a fishing gear in coastal are environmentally friendly and in accordance with the concept of conservation of fishery resources / environment

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