

## Pelagic Longline

### Set & Haul Information



Image: [www.fpir.noaa.gov/OBS/obs\\_american\\_samoa.html](http://www.fpir.noaa.gov/OBS/obs_american_samoa.html)

## Introduction

### Data Collection Duties

1. **Estimate effort for each gear deployment;**
2. Identify every individual caught and assess catch condition and fate;
3. Collect biological information on target and other identified species as requested;
4. Record all sightings and interactions with marine mammals and sea turtles;
5. Record vessel and fishing gear characteristics.

## Objectives

- List 8 elements on the Set & Haul Information form and describe how each is collected
- Define fishing effort
- Demonstrate ability to complete the Set & Haul Information forms

## Set & Haul Information Form

- Complete 1 per set
- Fishing effort – time, quantity of gear fished, location

### Set & Haul Information Form

Set and Haul Information - Pelagic Longline

Observer code: **734** Vessel code: **032456** Trip ID: **1** Set No: **1** Target: **ØBT** Page **1** of **45**

	Date/Time				Position				SST (°C)	Sea state	V/O	Set Speed (kts)	Max. Depth (m)	Seabird Mitigation	Haul Dir.
	Day	Month	Year	Time (24-hr)	Lat-Deg	Lat-Min	N/S	Long-Deg							
Deployment	Begin														
	End														
Retrieval	Begin														
	End														

**Hooks**

Type\*

Hooks / basket

Total baskets

Deployed

Retrieved

Tended

Rebated

Monitored

**Branchline**

Type\* Length Branchline set interval (s)

Distance between (m)

Weight (g) Weight placement

**Floats**

#

Float line Type\* Measured length

Weight (g)

Shark line on floats?

Hook type\* Total set

**Seabird mitigation codes (deployment)**

0 - None

1 - Bird scaring line - single

2 - Bird scaring line - double

3 - Weighted branchline/gangion

4 - Weighted groundline

5 - Underwater setting tube/chute

6 - Moon pool

10 - Other - explain in comments

\*relate to Types described on Gear Description - Pelagic Longline form

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Retrieval	Begin														
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**Hooks**

Type\*

Hooks / basket

Total baskets

Deployed

Retrieved

Tended

Rebated

Monitored

**Branchline**

Type\* Length Branchline set interval (s)

Distance between (m)

Weight (g) Weight placement

**Floats**

#

Float line Type\* Measured length

Weight (g)

Shark line on floats?

Hook type\* Total set

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	Day	Month	Year	Time (24-hr)	Lat-Deg	Lat-Min	N/S	Long-Deg							
Deployment	Begin														
	End														
Retrieval	Begin														
	End														

**Hooks**

Type\* **1**

Hooks / basket **12**

Total baskets **165**

Deployed **1980**

Retrieved **1980**

Tended

Rebated

Monitored **1956**

**Branchline**

Type\* Length Branchline set interval (s)

Distance between (m)

Weight (g) Weight placement

**Floats**

#

Float line Type\* Measured length

Weight (g)

Shark line on floats?

Hook type\* Total set

**Seabird mitigation codes (deployment)**

0 - None

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Deployment	Begin															
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	End															

**Hooks**

Type\*

Hooks / basket

Total baskets

Deployed

Retrieved

Tended

Rebated

Monitored

**Branchline**

Type\*  Length  Branchline set interval (s)

Distance between (m)

Weight (g)  Weight placement

**Floats**

#

Float line

Type\*

Measured length

Weight (g)

Shark line on floats?

Hook type\*

Total set

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## Calculating distance

- Distance = Speed \* Time
- What distance is traveled if you know the interval is 10 seconds and vessel speed is 6 knots? (hint: 1 knot=0.514m/s)

## Set & Haul Information Form

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**Hooks**

Type\*

Hooks / basket

Total baskets

Deployed

Retrieved

Tended

Rebated

Monitored

**Branchline**

Type\*  Length  Branchline set interval (s)

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**Bait**

Species					
kg					
Hook No.					

Mainline length: \_\_\_\_\_ nmi

Gear condition:  Y /  N  
 Gear parted:  Y /  N  
 Gear lost?:  Y /  N

**Light devices**

Type codes (circle one) 0 None 3 Glow bead  
 1 Chemical light stick 4 Other  
 2 Battery light

How many?  Placement

Color Code %


**Color Codes**

1 - White0 - Red
2 - Pink7 - Clear
3 - Black8 - Orange
4 - Green9 - Yellow
5 - Blue10 - Other

**Gear Condition Codes**

0 - No problems (<10% lost)
1 - Minor problems (<10-25% lost)
2 - Major problems (>25% lost)
3 - Gear completely damaged/lost.
4 - Gear conflicts
5 - Other - explain in comments

Other devices?  TDRs  Hook timers  Surface lights  Other

Comments

Version 1.2 6/2011

**Bait**

Species					
kg					
Hook No.					

Mainline length: \_\_\_\_\_ nmi

Gear condition:  Y /  N  
 Gear parted:  Y /  N  
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Species					
kg					
Hook No.					

Mainline length: \_\_\_\_\_ nmi

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Version 1.2 6/2011

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Species					
kg					
Hook No.					

Mainline length: \_\_\_\_\_ nmi

Gear condition:  Y /  N  
 Gear parted:  Y /  N  
 Gear lost?:  Y /  N

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How many?  Placement

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Other devices?  TDRs  Hook timers  Surface lights  Other

Comments

Version 1.2 6/2011

## Set & Haul Information Form

- Questions on Set & Haul information?
- Practice exercise
- Groups of 2
- Use handout, manual, partner to complete
- Record lengths of branchline components on white board [separate for circle and J-hook]



## Summary

- List 5 elements on the Set and Haul Information form and describe how each is collected
- How is fishing effort defined?

## References

- Brogan, D., S. Fukofuka, and P. Sharples. 2006. Longline Observer Guide. Secretariat of the Pacific Community Oceanic Fisheries Programme, Noumea, New Caledonia.
- Chapman, L., P. Sharples, D. Brogan, A. Desurmont, S. Beverly, and W. Sokimi. 2006. Marine species identification manual for horizontal longline fishermen. Secretariat of the Pacific Community, New Caledonia.
- NMFS. 2008a. American Samoa Observer Program Manual. Pacific Islands Regional Office, Sustainable Fisheries Division
- PIRO. 2009. Hawaii Longline Observer Program Observer Field Manual. Pacific Islands Regional Office, NMFS, Honolulu, HI.
- Southeast Fisheries Science Center. 2007. Pelagic Observer Program - Observer Manual. Pelagic Observer Program, Miami, FL.
- SPC. 2007. SPC/FFA Scientific Observer forms. Secretariat of the Pacific Community and Forum Fisheries Agency.

February 7, 2013

**Information for Set & Haul Form [Activity #1]**

Your observer code is Y2473 and you are aboard the f/v Sunny Days (code 00555). This is trip 347, set 32.

The first hook goes in the water at 2:30 p.m. on July 10, 2010. You record the start set position and setting speed from the GPS below. The GPS is set for degrees and decimal minutes. The surface temperature is 28.1°C and sea state is a force 3.



You used the vessel's logbook for the end deployment and begin/end retrieval information. The information is as follows.

End set: 5:30 p.m on the same day at 57° 05.341' N and 8° 22.998' E, surface temp=28.1; sea state was force 3.

Begin haul: July 11, 2:10 a.m., 57° 00.008' N and 9° 50.253' E, surface temp=28.2, sea state was force 4

End haul: 11:45 a.m, 57° 04.874' N and 8° 23.333' E, surface temp=28.2, sea state was force 5

The captain tells you the target is yellowfin tuna, wants the gear to fish at a maximum of 45m. You did not observe any seabird mitigation during deployment but the vessel used a boom with heavy line to protect the hauling area from seabirds. Branchlines were attached at 8 second intervals. Branchlines were all the same and were configured as the sample provided for the Gear Description form. The haul was in reverse. You also made the following hook counts for baskets: 13, 12, 12, 12, 13, 12, 13, 13, 13, 13, 12, 12. 100 baskets were deployed. You watched the entire retrieval and only 3 hooks were missing upon retrieval (it looked like the branchlines were broken). No hooks were tended/rebaited. There were no problems hauling the gear and no gear parted or was lost. No additional devices were added to the set.

- ❖ 10 shark hooks were deployed. Record as type 3 for the purpose of the exercise
- ❖ 101 floats, floatline length was 25 m.
- ❖ The crew used 390 kg of mackerel for bait. They attached blue and pink light sticks in equal proportions about 75cm from hook on every 4<sup>th</sup> hook.

### Set and Haul Information - Pelagic Longline

Observer code	Vessel code	Trip ID	Set No.	Target
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Page \_\_\_\_ of \_\_\_\_

		Date/Time				Position													
		Day	Month	Year	Time (24-hr)	Lat-Deg	Lat-Min	N / S	Long-Deg	Long-Min	E / W	SST (°C)	Sea state	V / O	Set Speed (kts)	Max. Depth (m)	Seabird Mitigation	Haul Dir.	
Deploy	Begin						.			.		.							
	End						.			.		.							
Retrieve	Begin						.			.		.						F	
	End						.			.		.						R	

**Hooks**

Type\*

Hooks / basket

Total baskets

Deployed

Retrieved

Tended

Rebaited

Monitored

**Branchline**

Type*	Length (m)	
<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>	Branchline set interval (s) <input style="width: 50px;" type="text"/>
<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>	Distance between (m) <input style="width: 50px;" type="text"/>
<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>	
Weight (g) <input style="width: 50px;" type="text"/>		Weight placement <input style="width: 50px;" type="text"/>
<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>	

**Floats**

#

**Float line**

Type\*

Measured length (m)

Weight (g)

**Shark line on floats?**

Hook type\*

Total set

**Seabird mitigation codes (deployment)**

0 - None

1 - Bird scaring line - single

2 - Bird scaring line - double

3 - Weighted branchline/gangion

4 - Weighted groundline

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6 - Moon pool

10 - Other - explain in comments

*\*relate to Types described on Gear Description - Pelagic Longline form*

**Bait**

Species					
kg					
Hook No.					

**Light devices**

Type codes (circle one)

0 None                      3 Glow bead  
 1 Chemical light stick    4 Other  
 2 Battery light

How many?

Placement

Color Code	%

**Color Codes**

1 - White	6 - Red
2 - Pink	7 - Clear
3 - Black	8 - Orange
4 - Green	9 - Yellow
5 - Blue	10 - Other

Mainline length  .  nmi

Gear condition

Gear parted  Y / N

Gear lost?  Y / N

**Gear Condition Codes**  
 0 – No problems (<10% lost)  
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Other devices?     TDRs     Hook timers     Surface lights     Other

**Comments**