
Pelagic Longline

Set & Haul Information



Image: 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.
-



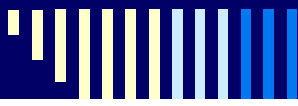
Objectives

- 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

Page 1 of 45

Observer code 734	Vessel code 032 456	Trip ID 1	Set No. 1	Target BET
-----------------------------	-------------------------------	---------------------	---------------------	----------------------

		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	Long-Min							
Deployment	Begin																
	End																
Retrieve	Begin																F
	End																R

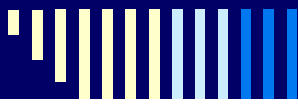
Hooks	
Type*	
Hooks / basket	
Total baskets	
Deployed	
Retrieved	
Tended	
Rebaited	
Monitored	

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



Set & Haul Information Form

Set and Haul Information - Pelagic Longline

Observer code 734	Vessel code 032 456	Trip ID 1	Set No. 1	Target BET
-----------------------------	-------------------------------	---------------------	---------------------	----------------------

Page ___ of ___

		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	Long-Min							
D e p l o y	Begin																
	End																
R e t r i e v e	Begin															0	F
	End																R

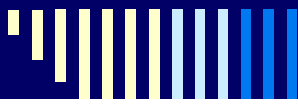
Hooks	
Type*	
Hooks / basket	
Total baskets	
Deployed	
Retrieved	
Tended	
Rebaited	
Monitored	

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



Set & Haul Information Form

Set and Haul Information - Pelagic Longline

Observer code 734	Vessel code 032 456	Trip ID 1	Set No. 1	Target BET
-----------------------------	-------------------------------	---------------------	---------------------	----------------------

Page ___ of ___

		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	Long-Min							
D e p l o y	Begin																
	End																
R e t r i e v e	Begin															<input checked="" type="checkbox"/>	F
	End																R

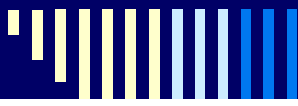
Hooks	
Type*	<input type="text"/>
Hooks / basket	<input type="text"/>
Total baskets	<input type="text"/>
Deployed	<input type="text"/>
Retrieved	<input type="text"/>
Tended	<input type="text"/>
Rebaited	<input type="text"/>
Monitored	<input type="text"/>

Branchline		
Type*	Length	Branchline set interval (s) <input type="text"/>
<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	
		Distance between (m) <input type="text"/>
Weight (g)	Weight placement	
<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	

Floats	
#	<input type="text"/>
Float line	<input type="text"/>
Type*	<input type="text"/>
Measured length	<input type="text"/>
Weight (g)	<input type="text"/>
Shark line on floats?	<input type="text"/>
Hook type*	<input type="text"/>
Total set	<input type="text"/>

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



Set & Haul Information Form

Set and Haul Information - Pelagic Longline

Observer code 734	Vessel code 032 456	Trip ID 1	Set No. 1	Target BET
-----------------------------	-------------------------------	---------------------	---------------------	----------------------

Page ___ of ___

		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	Long-Min							
D e p l o y	Begin																
	End																
R e t r i e v e	Begin																F
	End																R

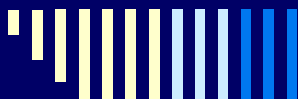
Hooks	
Type*	1
Hooks / basket	12
Total baskets	165
Deployed	1980
Retrieved	1980
Tended	
Rebaited	
Monitored	1956

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	
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



Set & Haul Information Form

Set and Haul Information - Pelagic Longline

Observer code 734	Vessel code 032 456	Trip ID 1	Set No. 1	Target BET
-----------------------------	-------------------------------	---------------------	---------------------	----------------------

Page ___ of ___

		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	Long-Min								E/W
D e p l o y	Begin																	
	End																	
R e t r i e v e	Begin																	F
	End																	R

Hooks	
Type*	
Hooks / basket	
Total baskets	
Deployed	
Retrieved	
Tended	
Rebaited	
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	

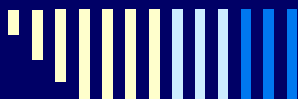
Seabird mitigation codes (deployment)	
0 - None	
1 - Bird scaring line - single	
2 - Bird scaring line - double	
3 - Weighted branchline/gangion	
4 - Weighted groundline	
5 - Underwater setting tube/chute	
6 - Moon pool	
10 - Other - explain in comments	

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



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

Set and Haul Information - Pelagic Longline

Observer code 734	Vessel code 032 456	Trip ID 1	Set No. 1	Target BET
-----------------------------	-------------------------------	---------------------	---------------------	----------------------

Page ___ of ___

		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	Long-Min								E/W
D e p l o y	Begin																	
	End																	
R e t r i e v e	Begin																	F
	End																	R

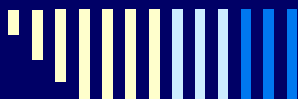
Hooks	
Type*	
Hooks / basket	
Total baskets	
Deployed	
Retrieved	
Tended	
Rebaited	
Monitored	

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



Set & Haul Information Form

Set and Haul Information - Pelagic Longline

Observer code 734	Vessel code 032 456	Trip ID 1	Set No. 1	Target BET
-----------------------------	-------------------------------	---------------------	---------------------	----------------------

Page ___ of ___

		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	Long-Min							
D e p l o y	Begin																
	End																
R e t r i e v e	Begin															0	F
	End																R

Hooks	
Type*	<input type="text"/>
Hooks / basket	<input type="text"/>
Total baskets	<input type="text"/>
Deployed	<input type="text"/>
Retrieved	<input type="text"/>
Tended	<input type="text"/>
Rebaited	<input type="text"/>
Monitored	<input type="text"/>

Branchline		
Type*	Length	Branchline set interval (s) <input type="text"/>
<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	
		Distance between (m) <input type="text"/>
Weight (g)	Weight placement	
<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	

Floats	
#	<input type="text"/>
Float line	<input type="text"/>
Type*	<input type="text"/>
Measured length	<input type="text"/>
Weight (g)	<input type="text"/>
Shark line on floats?	<input type="text"/>
Hook type*	<input type="text"/>
Total set	<input type="text"/>

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

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 Mainline length nmiGear condition Gear parted Gear lost?

Y / N
Y / N

- 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

Color Code %

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

Other devices?

 TDRs Hook timers Surface lights Other

Comments

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 nmiGear condition

Gear parted Y / N

Gear lost? Y / N

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

Bait

Species					
kg					
Hook No.					

Mainline length . nmiGear condition Gear parted Gear lost?

Y / N
Y / N

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

Light devices

Type codes (circle one)

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

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

Other devices?

 TDRs Hook timers Surface lights Other

Comments

Bait

Species					
kg					
Hook No.					

Mainline length . nmiGear condition Gear parted Gear lost?

Y / N
Y / N

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

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 - White6 - Red
- 2 - Pink7 - Clear
- 3 - Black8 - Orange
- 4 - Green9 - Yellow
- 5 - Blue10 - Other

Other devices?

 TDRs Hook timers Surface lights Other

Comments

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]



Set and Haul Information - Pelagic Longline

Observer code Y2473	Vessel code 00555	Trip ID 347	Set No. 32	Target YFT
-------------------------------	-----------------------------	-----------------------	----------------------	----------------------

		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	Long-Min	E/W							
Deploy	Begin	10	7	10	1430	56	58.60	N	009	68.69	E	28.1	3	Ø	9.3	45	0	
	End	10	7	10	1730	57	5.34	N	008	23.00	E	28.1	3	V				
Retrieve	Begin	11	7	10	0210	57	0.01	N	009	50.25	E	28.2	4	V			ⓧ	F
	End	11	7	10	1145	57	4.87	N	008	23.33	E	28.2	5	V				

Hooks	
Type*	1
Hooks / basket	13
Total baskets	100
Deployed	1310
Retrieved	1307
Tended	0
Rebaited	0
Monitored	1307

Branchline		
Type*	Length (m)	Branchline set interval (s) 8
1	3 / 4.5	
2	4.5 / 3.5	
3	3 / 4.5	
		Distance between (m) 38.2
Weight (g)	Weight placement	

Floats	
#	101
Float line	
Type*	1
Measured length (m)	25
Weight (g)	
Shark line on floats?	
Hook type*	3
Total set	10

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

Bait

Species	JAX				
kg	390				
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	%
2	50
5	50

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 N

Gear lost? N

Gear Condition Codes

0 - No problems (<10% lost)

1 - Minor problems (<10-25% lost)

2 - Major problems (>25% lost)

3 - Gear completely damaged/lost.

Other devices? TDRs Hook timers Surface lights Other

Comments

*Calculation for distance between branchlines = 0.514 m/s * 9.3 knots * 8s*

Estimated mainline length

*38.2m * 1311 = 50,080.2 m*

If 1nmi = 1853m

50,080.2 / 1853 = 27.02655153 or 27.0 nmi



Summary

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