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# Pelagic Longline

**Set & Haul Information  
and Catch Composition**

**INSERT presenter name  
here**



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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.
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# Objectives

- ❑ List 8 elements on the Set & Haul Information form and describe how each is collected
  - ❑ Define fishing effort
  - ❑ Describe the catch composition sampling process for pelagic longlining
  - ❑ Describe 2 situations when you can modify the standard catch composition sample and describe the modification for each
  - ❑ List 4 pieces of information that must be collected from every animal caught
  - ❑ List 3 pieces of gear needed on deck for catch composition sampling
  - ❑ Demonstrate ability to complete the Set & Haul Information and Catch Composition forms
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# Set & Haul Information Form

- ☐ Fishing effort – time & amount of gear fished
  - ☐ 1 per set
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# Set & Haul Information Form

## Set and Haul Information - Pelagic Longline

Observer code <b>734</b>	Vessel code <b>032 456</b>	Trip ID <b>1</b>	Set No. <b>1</b>	Target <b>BET</b>	Page ____ of ____												
Date/Time					Position						SST (°C)	Sea state	V / O	Set Speed (kts)	Depth (m)	Seabird Mitigation	Haul Dir.
Day	Month	Year	Time (24-hr)	Lat-Deg	Lat-Min	N / S	Long-Deg	Long-Min	E / W								
Set	Begin					.			.		.					<input type="checkbox"/>	
	End					.			.		.					<input type="checkbox"/>	
Haul	Begin					.			.		.					<input type="checkbox"/>	F
	End					.			.		.					<input type="checkbox"/>	R
<b>Hooks</b>					<b>Branchline</b>					<b>Floats</b>							
Type*					Type* Length					#							
Hooks / basket					Branchline set interval (s)					Float line							
Total baskets										Type*							
Set					Distance between (m)					Measured length							
Hauled																	
Tended																	
Rebaited										<b>Shark line on floats?</b>							
Monitored					Weight (g) Weight placement					Hook type*							
										Total set							

\*from LLD Gear Description form



# Set & Haul Information Form

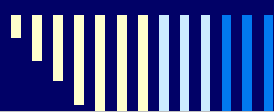
## Set and Haul Information - Pelagic Longline

Observer code <b>734</b>		Vessel code <b>032 456</b>		Trip ID <b>1</b>		Set No. <b>1</b>		Target <b>BET</b>		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)	Depth (m)	Seabird Mitigation	Haul Dir.	
S e t	Begin						.			.		.					<input type="checkbox"/>		
	End						.			.		.					<input type="checkbox"/>		
H a u l	Begin						.			.		.					<input type="checkbox"/>	F	
	End						.			.		.					<input type="checkbox"/>	R	

<b>Hooks</b>				<b>Branchline</b>				<b>Floats</b>			
Type*				Type*		Length		#			
Hooks / basket								Branchline set interval (s)		Float line	
Total baskets										Type*	
								Distance between (m)		Measured length	
Set											
Hauled											
Tended										Shark line on floats?	
Rebaited										Hook type*	
Monitored										Total set	
				Weight (g)		Weight placement					

\*from LLD Gear Description form



# Set & Haul Information Form

## Set and Haul Information - Pelagic Longline

Observer code <b>734</b>		Vessel code <b>032 456</b>		Trip ID <b>1</b>		Set No. <b>1</b>		Target <b>BET</b>		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)	Depth (m)	Seabird Mitigation	Haul Dir.
Set	Begin						.			.		.					<input type="checkbox"/>	
	End						.			.		.					<input type="checkbox"/>	
Haul	Begin						.			.		.					<input type="checkbox"/>	F
	End						.			.		.					<input type="checkbox"/>	R

<b>Hooks</b>				<b>Branchline</b>				<b>Floats</b>			
Type*				Type*	Length			#			
Hooks / basket						Branchline set interval (s)		Float line			
Total baskets								Type*			
Set						Distance between (m)		Measured length			
Hauled											
Tended											
Rebaited								<b>Shark line on floats?</b>			
Monitored								Hook type*			
				Weight (g)		Weight placement		Total set			

\*from LLD Gear Description form



# Set & Haul Information Form

## Set and Haul Information - Pelagic Longline

Observer code <b>734</b>	Vessel code <b>032 456</b>	Trip ID <b>1</b>	Set No. <b>1</b>	Target <b>BET</b>	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)	Depth (m)	Seabird Mitigation	Haul Dir.
S e t	Begin																				
	End																				
H a u l	Begin																				
	End																				

<b>Hooks</b>			
Type*			
Hooks / basket			
Total baskets			
Set			
Hauled			
Tended			
Rebaited			
Monitored			

<b>Branchline</b>			
Type*	Length	Branchline set interval (s)	
		Distance between (m)	
Weight (g)	Weight placement		

<b>Floats</b>	
#	
<b>Float line</b>	
Type*	
Measured length	
<b>Shark line on floats?</b>	
Hook type*	
Total set	

\*from LLD Gear Description form





# Set & Haul Information Form

## Set and Haul Information - Pelagic Longline

Observer code <b>734</b>	Vessel code <b>032 456</b>	Trip ID <b>1</b>	Set No. <b>1</b>	Target <b>BET</b>	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)	Depth (m)	Seabird Mitigation	Haul Dir.
Set	Begin					.			.		.					<input type="checkbox"/>	
	End					.			.		.					<input type="checkbox"/>	
Haul	Begin					.			.		.					<input type="checkbox"/>	F
	End					.			.		.					<input type="checkbox"/>	R

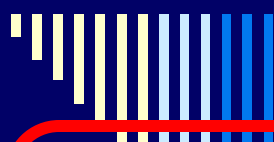
<b>Hooks</b>	
Type*	
Hooks / basket	
Total baskets	
Set	
Hauled	
Tended	
Rebaited	
Monitored	

<b>Branchline</b>		
Type*	Length	Branchline set interval (s)
		Distance between (m)
Weight (g)	Weight placement	

<b>Floats</b>	
#	
<b>Float line</b>	
Type*	
Measured length	
<b>Shark line on floats?</b>	
Hook type*	
Total set	

\*from LLD Gear Description form





# Set & Haul Information Form

<b>Bait</b>					
Species					
kg					
Hook No.					

<b>Light devices</b>			
Type codes (circle one)	0 None	2 Glow bead	
	1 Light stick	3 Other	
How many?	<input type="text"/>		
Color Code	%		
<input type="text"/>	<input type="text"/>		
<input type="text"/>	<input type="text"/>		
<input type="text"/>	<input type="text"/>		
<input type="text"/>	<input type="text"/>		

**Color Codes**

1 - White □ 6 - Red

2 - Pink □ 7 - Clear

3 - Black □ 8 - Orange

4 - Green □ 9 - Yellow

5 - Blue □ 10 - Other

Mainline length	<input type="text"/>	nmi
Gear condition		
Gear parted	Y / N	
Gear lost?	Y / N	

**Gear Condition Codes**

0 – No problems

1 – Minor problems

2 – Major problems

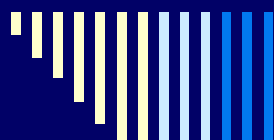
3 – Gear completely damaged/lost.

4 – Gear conflicts

5 – Other – explain in comments

<b>Other devices?</b>	<input type="text"/>	TDRs	<input type="text"/>	Hook timers	<input type="text"/>	Surface lights	<input type="text"/>	Other	<input type="text"/>
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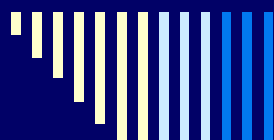
**Comments**



# Set & Haul Information Form

Bait				Light devices			
Species				Type codes (circle one)	0 None	2 Glow bead	
kg					1 Light stick	3 Other	
Hook No.				How many?			
Mainline length		nmi		Color Code	%		
Gear condition		<b>Gear Condition Codes</b> 0 – No problems 1 – Minor problems 2 – Major problems 3 – Gear completely damaged/lost. 4 – Gear conflicts 5 – Other – explain in comments				<b>Color Codes</b> 1 - White □ 6 - Red 2 - Pink □ 7 - Clear 3 - Black □ 8 - Orange 4 - Green □ 9 - Yellow 5 - Blue □ 10 - Other	
Gear parted	Y / N						
Gear lost?	Y / N						
Other devices?		TDRs		Hook timers		Surface lights	Other

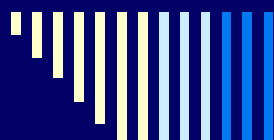
Comments



# Set & Haul Information Form

<b>Bait</b>				<b>Light devices</b>			
Species				Type codes (circle one)	0 None	2 Glow bead	
kg					1 Light stick	3 Other	
Hook No.				How many?			
Mainline length . nmi				Color Code %			
Gear condition		<b>Gear Condition Codes</b> 0 – No problems 1 – Minor problems 2 – Major problems 3 – Gear completely damaged/lost. 4 – Gear conflicts 5 – Other – explain in comments				<b>Color Codes</b> 1 - White □ 6 - Red 2 - Pink □ 7 - Clear 3 - Black □ 8 - Orange 4 - Green □ 9 - Yellow 5 - Blue □ 10 - Other	
Gear parted	Y / N						
Gear lost?	Y / N						
<b>Other devices?</b>		TDRs		Hook timers		Surface lights	

**Comments**



# Set & Haul Information Form

Bait				Light devices			
Species				Type codes (circle one)	0 None	2 Glow bead	
kg					1 Light stick	3 Other	
Hook No.				How many?			
Mainline length			nmi	Color Code	%		
Gear condition							
Gear parted	Y / N						
Gear lost?	Y / N						
<b>Gear Condition Codes</b> 0 – No problems 1 – Minor problems 2 – Major problems 3 – Gear completely damaged/lost. 4 – Gear conflicts 5 – Other – explain in comments				<b>Color Codes</b> 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



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# Set & Haul Information Form

- ☐ Questions on Set & Haul information?
  - ☐ Practice exercise
-

# Catch Composition Form

**Catch Composition - Pelagic Longline**

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

Hook No.	Species name	Species code	Caught condition	Kept / return code	Damage code	Sex (M, F, I, U)	Length 1		Length 2		Length 3		Weight		Tag / specimen no.	Photos	Comment
							Type	Measurement	Type	Measurement	Type	Measurement	Type	Measurement			
																<input type="checkbox"/>	
																<input type="checkbox"/>	
																<input type="checkbox"/>	

**Common Species**  
**SKJ** Skipjack tuna  
**YFT** Yellowfin tuna  
**BET** Bigeye tuna  
**ALB** Albacore tuna  
**SVO** Swordfish  
  
**BSH** Blue shark  
**SMA** Shortfin mako shark

**Caught condition**  
**A1** Active, not bleeding  
**A2** Active, bleeding/  
 obvious injury  
**X** Inactive  
**U** Unknown  
  
 \*More codes for MM &  
 turtles

**Kept/return codes**  
**K** Kept  
**A1** Active, not bleeding  
**X** Dead, inactive  
**F** Finned  
**I** Injured  
**U** Unknown

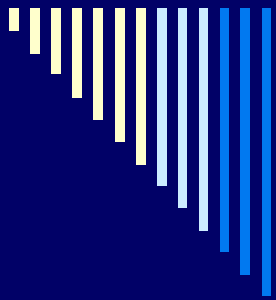
**Damage codes**  
 Blank No damage  
**III** Did not inspect  
**C** Cookie cutter shark  
**M** Marine mammal  
**S** Shark  
**U** Unknown source

**Length types** (combine # & letter)  
**01** Fork **C** Curved  
**02** Total **S** Straight  
**03** Standard **E** Estimated  
**04** Eye to fork  
**05** Lower jaw to fork  
**11** Disc width

**Weight types** (combine # & letter)  
 Blank - no weight **A** Actual  
**01** Whole **E** Estimated  
**02** Gilled & gutted  
**03** Gilled & headed  
**04** Headed & gutted  
**99** Other, describe in comment

**Sex codes** **M** Male **F** Female **I** Indeterminate **U** Unknown (not inspected)

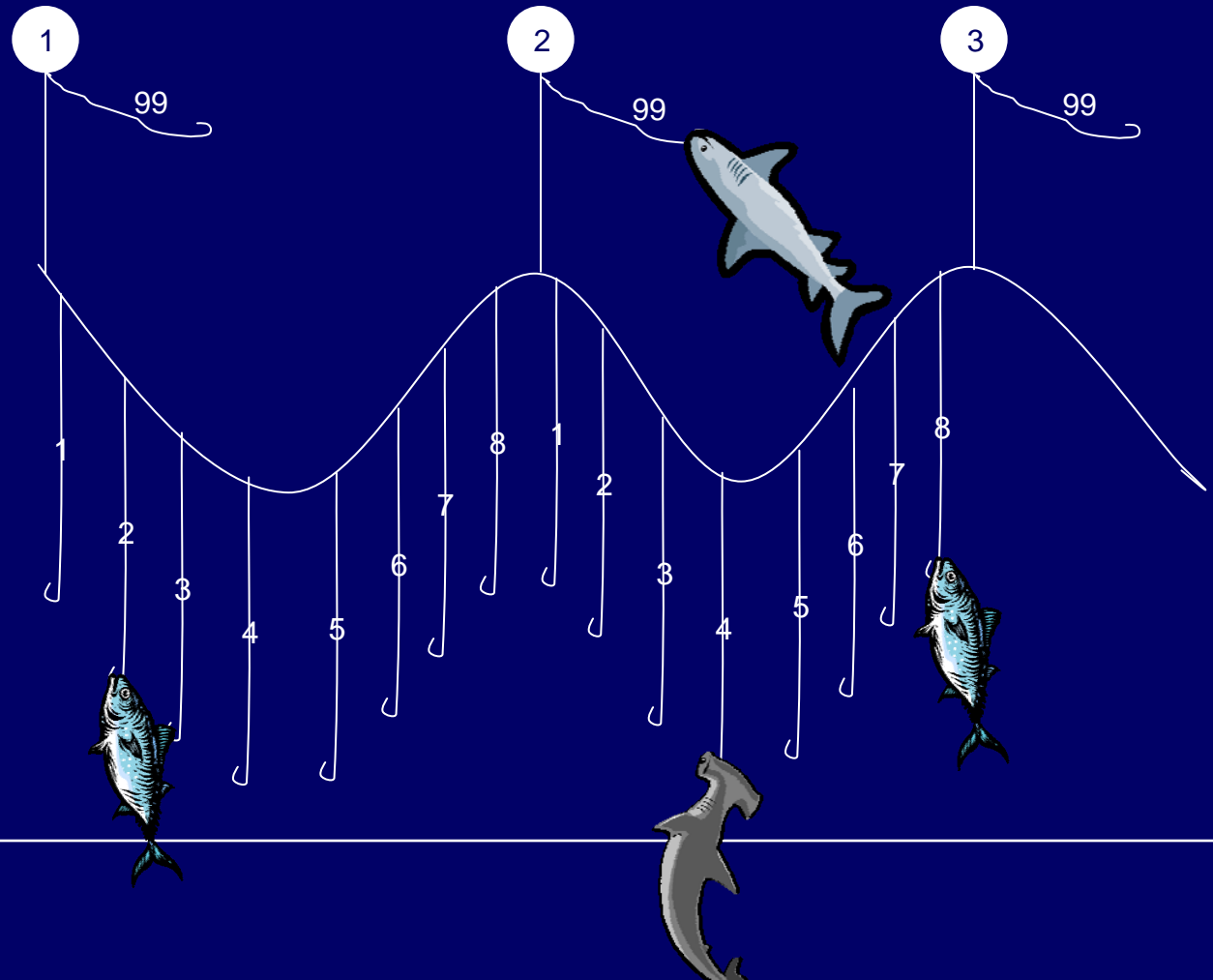




# Catch Composition Form



Hook number  
assigned  
based on  
setting  
direction



# Catch Composition Form

Catch Composition - Pelagic Longline																	
Observer code			Vessel code			Trip ID			Set No.			Page ____ of ____					
Hook No.	Species name	Species code	Caught condition	Kept / return code	Damage code	Sex (M, F, I, U)	Type	Measurement	Type	Measurement	Type	Measurement	Type	Measurement	Tag / specimen no.	Photos	Comment
							Length 1		Length 2		Length 3		Weight				
																<input type="checkbox"/>	
																<input type="checkbox"/>	
																<input type="checkbox"/>	

## Common Species

**SKJ** Skipjack tuna  
**YFT** Yellowfin tuna  
**BET** Bigeye tuna  
**ALB** Albacore tuna  
**SVO** Swordfish

**BSH** Blue shark  
**SMA** Shortfin mako shark

## Caught condition

**A1** Active, not bleeding  
**A2** Active, bleeding/  
 obvious injury  
**X** Inactive  
**U** Unknown

\*More codes for MM & turtles

## Kept/return codes

**K** Kept  
**A1** Active, not bleeding  
**X** Dead, inactive  
**F** Finned  
**I** Injured  
**U** Unknown

## Damage codes

Blank No damage  
**III** Did not inspect  
**C** Cookie cutter shark  
**M** Marine mammal  
**S** Shark  
**U** Unknown source

## Length types (combine # & letter)

**01** Fork **C** Curved  
**02** Total **S** Straight  
**03** Standard **E** Estimated  
**04** Eye to fork  
**05** Lower jaw to fork  
**11** Disc width

## Weight types (combine # & letter)

Blank - no weight **A** Actual  
**01** Whole **E** Estimated  
**02** Gilled & gutted  
**03** Gilled & headed  
**04** Headed & gutted  
**99** Other, describe in comment

**Sex codes** **M** Male **F** Female **I** Indeterminate **U** Unknown (not inspected)

# Catch Composition Form

Catch Composition - Pelagic Longline																	
Observer code			Vessel code			Trip ID		Set No.								Page ____ of ____	
Hook No.	Species name	Species code	Caught condition	Kept / return code	Damage code	Sex (M, F, I, U)	Type	Measurement	Type	Measurement	Type	Measurement	Type	Measurement	Tag / specimen no.	Photos	Comment
							Length 1		Length 2		Length 3		Weight				
																<input type="checkbox"/>	
																<input type="checkbox"/>	
																<input type="checkbox"/>	

<b>Common Species</b> <b>SKJ</b> Skipjack tuna <b>YFT</b> Yellowfin tuna <b>BET</b> Bigeye tuna <b>ALB</b> Albacore tuna <b>SVO</b> Swordfish  <b>BSH</b> Blue shark <b>SMA</b> Shortfin mako shark	<b>Caught condition</b> <b>A1</b> Active , not bleeding <b>A2</b> Active , bleeding/ obvious injury <b>X</b> Inactive <b>U</b> Unknown  *More codes for MM & turtles	<b>Kept/return codes</b> <b>K</b> Kept <b>A1</b> Active, not bleeding <b>X</b> Dead, inactive <b>F</b> Finned <b>I</b> Injured <b>U</b> Unknown	<b>Damage codes</b> Blank No damage <b>III</b> Did not inspect <b>C</b> Cookie cutter shark <b>M</b> Marine mammal <b>S</b> Shark <b>U</b> Unknown source	<b>Length types</b> (combine # & letter) <b>01</b> Fork <b>C</b> Curved <b>02</b> Total <b>S</b> Straight <b>03</b> Standard <b>E</b> Estimated <b>04</b> Eye to fork <b>05</b> Lower jaw to fork <b>11</b> Disc width	<b>Weight types</b> (combine # & letter) Blank - no weight <b>A</b> Actual <b>01</b> Whole <b>E</b> Estimated <b>02</b> Gilled & gutted <b>03</b> Gilled & headed <b>04</b> Headed & gutted <b>99</b> Other, describe in comment
<b>Sex codes</b> <b>M</b> Male <b>F</b> Female <b>I</b> Indeterminate <b>U</b> Unknown (not inspected)					

# Catch Composition Form

Catch Composition - Pelagic Longline																	
Observer code		Vessel code		Trip ID		Set No.		Page ____ of ____									
Hook No.	Species name	Species code	Caught condition	Kept / return code	Damage code	Sex (M, F, I, U)	Type	Measurement	Type	Measurement	Type	Measurement	Type	Measurement	Tag / specimen no.	Photos	Comment
							Length 1		Length 2		Length 3		Weight				
																<input type="checkbox"/>	
																<input type="checkbox"/>	
																<input type="checkbox"/>	

**Common Species**  
**SKJ** Skipjack tuna  
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**Caught condition**  
**A1** Active , not bleeding  
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 obvious injury  
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**U** Unknown  
  
 \*More codes for MM &  
 turtles

**Kept/return codes**  
**K** Kept  
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**U** Unknown

**Damage codes**  
 Blank No damage  
**III** Did not inspect  
**C** Cookie cutter shark  
**M** Marine mammal  
**S** Shark  
**U** Unknown source

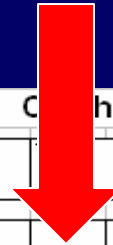
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**11** Disc width

**Weight types** (combine # & letter)  
 Blank - no weight **A** Actual  
**01** Whole **E** Estimated  
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**99** Other, describe in comment

**Sex codes** **M** Male **F** Female **I** Indeterminate **U** Unknown (not inspected)

# Catch Composition Form

Catch Composition - Pelagic Longline																	
Observer code			Vessel code			Set No.			Page ____ of ____								
Hook No.	Species name	Species code	Caught condition	Kept / return code	Damage code	Sex (M, F, I, U)	Type	Measurement	Type	Measurement	Type	Measurement	Type	Measurement	Tag / specimen no.	Photos	Comment
							Length 1		Length 2		Length 3		Weight				
																<input type="checkbox"/>	
																<input type="checkbox"/>	
																<input type="checkbox"/>	



Common Species	Caught condition	Kept/return codes	Damage codes	Length types (combine # & letter)	Weight types (combine # & letter)
<b>SKJ</b> Skipjack tuna <b>YFT</b> Yellowfin tuna <b>BET</b> Bigeye tuna <b>ALB</b> Albacore tuna <b>SVO</b> Swordfish  <b>BSH</b> Blue shark <b>SMA</b> Shortfin mako shark	<b>A1</b> Active , not bleeding <b>A2</b> Active , bleeding/obvious injury <b>X</b> Inactive <b>U</b> Unknown  *More codes for MM & turtles	<b>K</b> Kept <b>A1</b> Active, not bleeding <b>X</b> Dead, inactive <b>F</b> Finned <b>I</b> Injured <b>U</b> Unknown	<b>Blank</b> No damage <b>III</b> Did not inspect <b>C</b> Cookie cutter shark <b>M</b> Marine mammal <b>S</b> Shark <b>U</b> Unknown source	<b>01</b> Fork <b>C</b> Curved <b>02</b> Total <b>S</b> Straight <b>03</b> Standard <b>E</b> Estimated <b>04</b> Eye to fork <b>05</b> Lower jaw to fork <b>11</b> Disc width	Blank - no weight <b>A</b> Actual <b>01</b> Whole <b>E</b> Estimated <b>02</b> Gilled & gutted <b>03</b> Gilled & headed <b>04</b> Headed & gutted <b>99</b> Other, describe in comment
<b>Sex codes</b> <b>M</b> Male <b>F</b> Female <b>I</b> Indeterminate <b>U</b> Unknown (not inspected)					

# Damage – Marine mammal (usu. toothed whale)

- ❑ often only head remains
- ❑ Widely spaced tooth punctures
- ❑ Often on multiple fish
- ❑ Jagged bite edges





# Damage – Cookie cutter

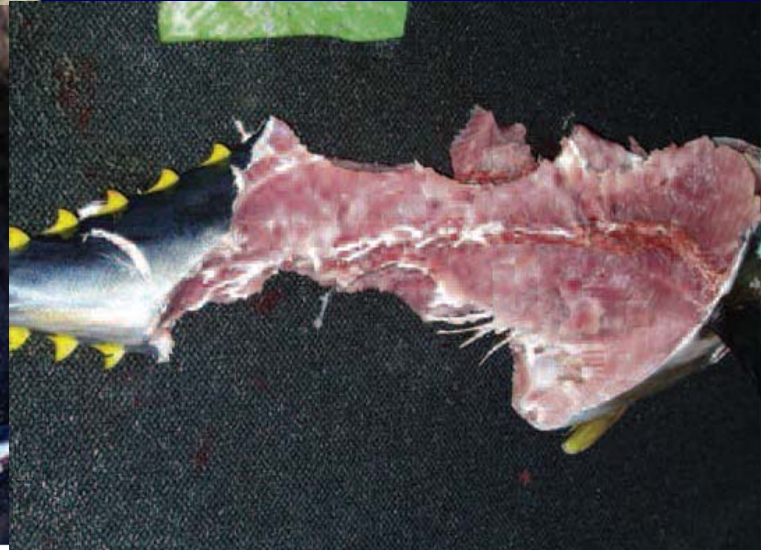
- circular / oval – clean edges



# Damage – other Shark



- ❑ Large bites; few long strips of tissues
- ❑ Gouge marks from individual teeth – look more like lacerations
- ❑ Frequently multiple bites





# Catch Composition Form

Catch Composition - Pelagic Longline																	
Observer code			Vessel code			Trip ID		Set No.								Page ____ of ____	
Hook No.	Species name	Species code	Caught condition	Kept / return code	Damage code	Sex (M, F, I, U)	Type	Measurement	Type	Measurement	Type	Measurement	Type	Measurement	Tag / specimen no.	Photos	Comment
							Length 1		Length 2		Length 3		Weight				
																<input type="checkbox"/>	
																<input type="checkbox"/>	
																<input type="checkbox"/>	

## Common Species

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## Caught condition

**A1** Active, not bleeding  
**A2** Active, bleeding/  
 obvious injury  
**X** Inactive  
**U** Unknown

\*More codes for MM & turtles

## Kept/return codes

**K** Kept  
**A1** Active, not bleeding  
**X** Dead, inactive  
**F** Finned  
**I** Injured  
**U** Unknown

## Damage codes

**Blank** No damage  
**III** Did not inspect  
**C** Cookie cutter shark  
**M** Marine mammal  
**S** Shark  
**U** Unknown source

## Length types (combine # & letter)

**01** Fork **C** Curved  
**02** Total **S** Straight  
**03** Standard **E** Estimated  
**04** Eye to fork  
**05** Lower jaw to fork  
**11** Disc width

## Weight types (combine # & letter)

**Blank** - no weight **A** Actual  
**01** Whole **E** Estimated  
**02** Gilled & gutted  
**03** Gilled & headed  
**04** Headed & gutted  
**99** Other, describe in comment

**Sex codes** **M** Male **F** Female **I** Indeterminate **U** Unknown (not inspected)

# Catch Composition Form

Catch Composition - Pelagic Longline																	
Observer code			Vessel code			Trip ID			No.						Page ____ of ____		
Hook No.	Species name	Species code	Caught condition	Kept / return code	Damage code	Sex (M, F, I, U)	Type	Measurement	Type	Measurement	Type	Measurement	Type	Measurement	Tag / specimen no.	Photos	Comment
							Length 1		Length 2		Length 3		Weight				
																<input type="checkbox"/>	
																<input type="checkbox"/>	
																<input type="checkbox"/>	

## Common Species

**SKJ** Skipjack tuna  
**YFT** Yellowfin tuna  
**BET** Bigeye tuna  
**ALB** Albacore tuna  
**SVO** Swordfish

**BSH** Blue shark  
**SMA** Shortfin mako shark

## Caught condition

**A1** Active, not bleeding  
**A2** Active, bleeding/  
 obvious injury  
**X** Inactive  
**U** Unknown

\*More codes for MM & turtles

## Kept/return codes

**K** Kept  
**A1** Active, not bleeding  
**X** Dead, inactive  
**F** Finned  
**I** Injured  
**U** Unknown

## Damage codes

**Blank** No damage  
**III** Did not inspect  
**C** Cookie cutter shark  
**M** Marine mammal  
**S** Shark  
**U** Unknown source

**Sex codes** **M** Male **F** Female

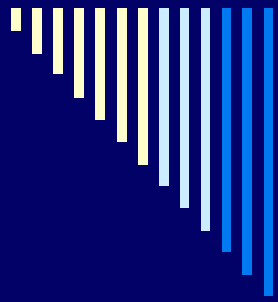
## Length types (combine # & letter)

**01** Fork **C** Curved  
**02** Total **S** Straight  
**03** Standard **E** Estimated  
**04** Eye to fork  
**05** Lower jaw to fork  
**11** Disc width

## Weight types (combine # & letter)

**Blank** - no weight **A** Actual  
**1** Whole **E** Estimated  
**2** Gilled & gutted  
**3** Gilled & headed  
**4** Headed & gutted  
**9** Other, describe in comment

**Indeterminate** **U** Unknown (not inspected)



Straight

vs.

Curved  
lengths



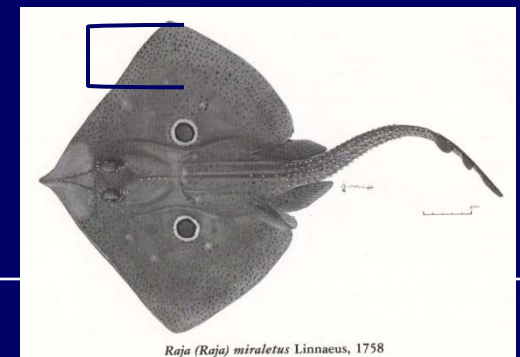
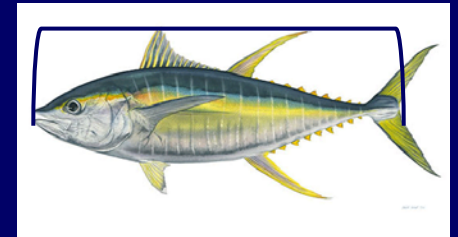
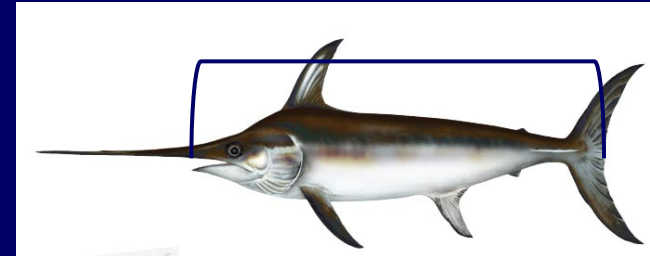
48 cm



53 cm

# Length Rule of Thumb

- Swordfish and billfish – lower jaw to fork length, curved (type 05C)
- Tunas, sharks & most other fish – straight fork length (type 01S)
- Rays – disc width (type 11S)



# Catch Composition Form

Catch Composition - Pelagic Longline																		
Observer code			Vessel code			Trip ID		Set No.								Page ____ of ____		
Hook No.	Species name	Species code	Caught condition	Kept / return code	Damage code	Sex (M, F, I, U)	Type	Measurement	Type	Measurement	Type	Measurement	Type	Measurement	Tag / specimen no.	Photos	Comment	
							Length 1	Length 2	Length 3	Weight								
																<input type="checkbox"/>		
																<input type="checkbox"/>		
																<input type="checkbox"/>		



**Common Species**  
**SKJ** Skipjack tuna  
**YFT** Yellowfin tuna  
**BET** Bigeye tuna  
**ALB** Albacore tuna  
**SVO** Swordfish  
  
**BSH** Blue shark  
**SMA** Shortfin mako shark

**Caught condition**  
**A1** Active, not bleeding  
**A2** Active, bleeding/  
 obvious injury  
**X** Inactive  
**U** Unknown  
  
 \*More codes for MM &  
 turtles

**Kept/return codes**  
**K** Kept  
**A1** Active, not bleeding  
**X** Dead, inactive  
**F** Finned  
**I** Injured  
**U** Unknown

**Damage codes**  
 Blank No damage  
**III** Did not inspect  
**C** Cookie cutter shark  
**M** Marine mammal  
**S** Shark  
**U** Unknown source

**Length types** (combine # & letter)  
**01** Fork **C** Curved  
**02** Total **S** Straight  
**03** Standard **E** Estimated  
**04** Eye to fork  
**05** Lower jaw to fork  
**11** Disc width

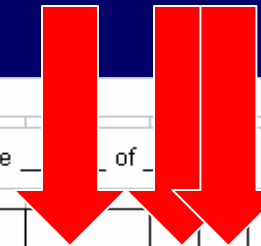
**Weight types** (combine # & letter)  
 Blank - no weight **A** Actual  
**01** Whole **E** Estimated  
**02** Gilled & gutted  
**03** Gilled & headed  
**04** Headed & gutted  
**99** Other, describe in comment

**Sex codes** **M** Male **F** Female **I** Indeterminate **U** Unknown (not inspected)



# Catch Composition Form

Catch Composition - Pelagic Longline																	
Observer code		Vessel code		Trip ID		Set No.		Page ____ of ____									
Hook No.	Species name	Species code	Caught condition	Kept / return code	Damage code	Sex (M, F, I, U)	Type	Measurement	Type	Measurement	Type	Measurement	Type	Measurement	Tag / specimen no.	Photos	Comment
							Length 1		Length 2		Length 3		Weight				
																<input type="checkbox"/>	
																<input type="checkbox"/>	
																<input type="checkbox"/>	



**Common Species**  
**SKJ** Skipjack tuna  
**YFT** Yellowfin tuna  
**BET** Bigeye tuna  
**ALB** Albacore tuna  
**SVO** Swordfish  
  
**BSH** Blue shark  
**SMA** Shortfin mako shark

**Caught condition**  
**A1** Active , not bleeding  
**A2** Active , bleeding/  
 obvious injury  
**X** Inactive  
**U** Unknown  
  
 \*More codes for MM &  
 turtles

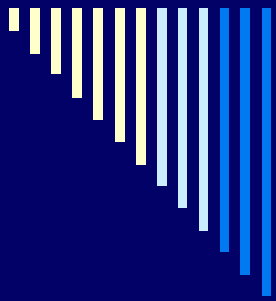
**Kept/return codes**  
**K** Kept  
**A1** Active, not bleeding  
**X** Dead, inactive  
**F** Finned  
**I** Injured  
**U** Unknown

**Damage codes**  
 Blank No damage  
**III** Did not inspect  
**C** Cookie cutter shark  
**M** Marine mammal  
**S** Shark  
**U** Unknown source

**Length types** (combine # & letter)  
**01** Fork **C** Curved  
**02** Total **S** Straight  
**03** Standard **E** Estimated  
**04** Eye to fork  
**05** Lower jaw to fork  
**11** Disc width

**Weight types** (combine # & letter)  
 Blank - no weight **A** Actual  
**01** Whole **E** Estimated  
**02** Gilled & gutted  
**03** Gilled & headed  
**04** Headed & gutted  
**99** Other, describe in comment

**Sex codes** **M** Male **F** Female **I** Indeterminate **U** Unknown (not inspected)



# Catch composition – sampling exceptions

Issue	Alternative
Too many fish to keep up	Reduce number of sexed lengths
Rough seas / seasick	Cease measurements but still try to watch
Hunger / toilet	Select a random subsample



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# Catch Composition Form

- Questions on catch composition sampling?
  - Practice exercise
-



# Set and Haul Information - Pelagic Longline

Page \_\_\_\_ of \_\_\_\_

Observer code <b>Y2473</b>	Vessel code <b>00555</b>	Trip ID <b>347</b>	Set No. <b>32</b>	Target <b>YFT</b>
-------------------------------	-----------------------------	-----------------------	----------------------	----------------------

		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							
S e t	Begin	10	7	10	1430	56	58.6	N	009	41.21	E	28.1	3	O	9.3	45	<input type="checkbox"/>	
	End	10	7	10	1730	57	5.34	N	008	23	E	28.2	3	V				
H a u l	Begin	11	7	10	0210	57	0.01	N	009	50.25	E	28.2	4	V			<input checked="" type="checkbox"/>	F
	End	11	7	10	1145	57	4.87	N	008	23.33	E	28.3	5	V				

Hooks	
Type*	<b>1</b>
Hooks / basket	<b>13</b>
Total baskets	<b>100</b>
Set	<b>1310</b>
Hauled	<b>1310</b>
Tended	<b>0</b>
Rebaited	<b>0</b>
Monitored	<b>1310</b>

Branchline		
Type*	Length	Branchline set interval (s) <b>8</b>
<b>1</b>	<b>10.0</b>	
<b>2</b>	<b>10.5</b>	
<b>3</b>	<b>1.0</b>	
		Distance between (m) <b>38.2</b>
		=0.514 m/s * 9.3 knots *8s
Weight (g)	Weight placement	

Floats	
#	<b>101</b>
Float line	
Type*	<b>1</b>
Measured length	<b>25</b>
Weight (g)	
Shark line on floats?	
Hook type*	<b>2</b>
Total set	<b>10</b>

**Bait**

Species	JAX				
kg	390				
Hook No.					

Mainline length  nmi

Gear condition

Gear parted

Y

☒

Gear lost?

Y

☒**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 - 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**

\*

# Catch Composition - Pelagic Longline

Observer code <b>Y2473</b>	Vessel code <b>00555</b>	Trip ID <b>347</b>	Set No. <b>32</b>
-------------------------------	-----------------------------	-----------------------	----------------------

Page **1** of \_\_\_\_\_

	Hook No.	Species name	Species code	Caught condition code	Kept / return code	Damage code	Sex (M, F, I, U)	Type	Measurement	Type	Measurement	Type	Measurement	Type	Measurement	Tag / specimen no.	Photos	Comment
								Length 1	Length 2	Length 3	Length 4	Length 5	Length 6	Length 7	Length 8			
	1	albacore	ALB	A1	K		M										<input type="checkbox"/>	
	2	blue shark	BSH	U	K		F										<input type="checkbox"/>	
	3	bigeye	BET	A2	K	C	F										<input type="checkbox"/>	
	4	pelagic stingray		U	X		F										<input type="checkbox"/>	
	5	albacore	ALB	A2	K	S	M										<input type="checkbox"/>	
	6	common thresher	ALV	A1	F		F										<input checked="" type="checkbox"/>	
	7	yellowfin	YFT	X	K		M										<input checked="" type="checkbox"/>	
	8	wahoo	WAH	X	X		U										<input checked="" type="checkbox"/>	
	9	Blue marlin	BUM	A2	A2	NI	U										<input type="checkbox"/>	1
	10	albacore	ALB	A2	K		F										<input type="checkbox"/>	

<b>Common Species</b>
<b>SKJ</b> Skipjack tuna
<b>YFT</b> Yellowfin tuna
<b>BET</b> Bigeye tuna
<b>ALB</b> Albacore tuna
<b>SWO</b> Swordfish
<b>BSH</b> Blue shark
<b>SMA</b> Shortfin mako shark

<b>Caught condition</b>
<b>A1</b> Active , not bleeding
<b>A2</b> Active , bleeding/obvious injury
<b>X</b> Inactive
<b>U</b> Unknown
*More codes for MM & turtles

<b>Kept/return codes</b>
<b>K</b> Kept
<b>A1</b> Active, not bleeding
<b>A2</b> Active , bleeding/obvious injury
<b>X</b> Dead, inactive
<b>F</b> Finned
<b>U</b> Unknown

<b>Damage codes</b>
<b>Blank</b> No damage
<b>NI</b> Did not inspect
<b>C</b> Cookie cutter shark
<b>M</b> Marine mammal
<b>S</b> Shark
<b>U</b> Unknown source
<b>Sex codes</b> <b>M</b> Male <b>F</b> Female <b>I</b> Indeterminate <b>U</b> Unknown (not inspected)

<b>Length types</b> (combine # & letter)
<b>01</b> Fork <b>C</b> Curved
<b>02</b> Total <b>S</b> Straight
<b>03</b> Standard <b>E</b> Estimated
<b>04</b> Eye to fork
<b>05</b> Lower jaw to fork
<b>11</b> Disc width

<b>Weight types</b> (combine # & letter)
Blank - no weight <b>A</b> Actual
<b>01</b> Whole <b>E</b> Estimated
<b>02</b> Gilled & gutted
<b>03</b> Gilled & headed
<b>04</b> Headed & gutted
<b>99</b> Other, describe in comment

	Hook No.	Species name	Species code	Caught condition (A, D, I, U)	Kept / return code (K, A, D, F, I, U)	Damage code	Sex (M, F, I, U)	Type	Measurement	Type	Measurement	Type	Measurement	Type	Measurement	Tag / specimen / carcass no.	Photos	Comment
								Length 1		Length 2		Length 3		Weight				
	11	Blue shark	BSH	A2	A2		M										<input type="checkbox"/>	
	12	dolphinfish	DOL	A2	A2	U	M										<input type="checkbox"/>	
	13	skipjack	SKJ	A2	K		I										<input type="checkbox"/>	
	14	wahoo	WAH	A2	K		U										<input type="checkbox"/>	
	15	Blue shark	BSH	A1	K		M										<input type="checkbox"/>	
	16	skipjack	SKJ	A1	K		U										<input type="checkbox"/>	
	17	shortfin mako	SMA	X	U		U										<input type="checkbox"/>	
	18	Seranidae, Unid	BSX	X	X		M										<input checked="" type="checkbox"/>	
	19	swordfish	SWO	A1	K		F										<input type="checkbox"/>	
	20	Blue shark	BSH	A1	K		M										<input type="checkbox"/>	

Comments (reference by number in comments box):

1 - Fish released before landing. Estimated lower jaw to fork length at 2.5 meters



# Summary

- ❑ List the elements on the Set and Haul Information form and describe how each is collected
  - ❑ How is fishing effort defined?
  - ❑ Describe the catch composition sampling process for pelagic longlining
  - ❑ when you can modify the standard catch composition sampling protocol and describe the modification for each
  - ❑ List 4 pieces of information that must be collected from every animal caught
  - ❑ What gear is needed on deck for catch composition sampling
-