

**BOTTOM TRAWL HAUL LOG**  
**NMFS FISHERIES OBSERVER PROGRAM**  
**OBOTH OBHAU OBSPP 01/01/21**

OBS/ TRIP ID	
DATE LAND (mm/yy)	/ /
PAGE #	<input type="checkbox"/> OF <input type="checkbox"/>

GEAR CODE <input type="text"/>	GEAR # <input type="text"/>	HAUL # <input type="text"/>	HAUL OBS? NO 0 <input type="text"/> YES 1 <input type="text"/>	ON-EFFORT? NO 0 <input type="text"/> YES 1 <input type="text"/>	CATCH? NO 0 <input type="text"/> YES 1 <input type="text"/>	INC TAKE? NO 0 <input type="text"/> YES 1 <input type="text"/>	WEATHER CODE <input type="text"/>	WIND SPEED <input type="text"/> kn      DIRECTION <input type="text"/> °		WAVE HEIGHT <input type="text"/> ft	DEPTH, HAUL BEGIN <input type="text"/> fm	GEAR COND CODE <input type="text"/>
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HAUL INFO	DATE mm/dd/yy	TIME 24 hours	LATITUDE / LONGITUDE (DD MM.M) - LORAN (XXXXX)				NUMBER OF TURNS	TOW SPEED	WIRE OUT
BEGIN HAUL	/ /	:	Station 1 9960 -	Latitude / Bearing	Station 2 9960 -	Longitude / Bearing	<input type="text"/> kn	<input type="text"/> fm	
BEGIN FISHING	/ /	:					WATER TEMP	TARGET SPECIES	CODE
END HAUL	/ /	:	9960 -		9960 -		<input type="text"/> ° F	<input type="text"/>	<input type="text"/>

GEAR ONBOARD	/ /	:	COMMENTS						VERTICAL OPENING **
FISH PUMPING									<input type="text"/> ft
BEGIN	/ /	:							HORIZONTAL OPENING **
END	/ /	:							<input type="text"/> ft
								DOOR SPREAD **	
								<input type="text"/> ft	
								SAMPLE WEIGHT MULTIPLIER	
								<input type="text"/>	

\*\* Only fill in if gear mounted electronics are used

SPECIES				WEIGHT				SPECIES				WEIGHT			
NAME	CODE	SUB-SAMPLE WEIGHT	POUNDS	DISP CODE	D/R	ESTIMATION METHOD CODE	NAME	CODE	SUB-SAMPLE WEIGHT	POUNDS	DISP CODE	D/R	ESTIMATION METHOD CODE		
1		<input type="text"/>					11		<input type="text"/>						
2		<input type="text"/>					12		<input type="text"/>						
3		<input type="text"/>					13		<input type="text"/>						
4		<input type="text"/>					14		<input type="text"/>						
5		<input type="text"/>					15		<input type="text"/>						
6		<input type="text"/>					16		<input type="text"/>						
7		<input type="text"/>					17		<input type="text"/>						
8		<input type="text"/>					18		<input type="text"/>						
9		<input type="text"/>					19		<input type="text"/>						
10		<input type="text"/>					20		<input type="text"/>						

**CATCH ESTIMATION WORKSHEET**  
**NMFS FISHERIES OBSERVER PROGRAM**  
**01/01/21**

OBS/TRIP ID	
DATE LANDED mm/yy	/
HAUL #	

<b>SORTING METHOD</b> Check all that apply	<b>ESTIMATION METHODS</b>	
1 <input type="checkbox"/> Picked	01 = Actual (Spring Scale)	11 = Actual (Electronic Scale)
2 <input type="checkbox"/> Shoveled	05 = Tally	03 = Basket or Tote Count
3 <input type="checkbox"/> Deckloaded	02 = Volume-to-Volume	13 = Count-to-Count
4 <input type="checkbox"/> Conveyor System	14 = Weight-to-Weight	07 = Cumulative Sum
5 <input type="checkbox"/> Pumping System	12 = Trap Subsample	10 = Catch Composition Log
9 <input type="checkbox"/> Other (Comment)	04 = Captain	06 = Visually Estimated
	98 = Combination (Comment)	
	99 = Other (Comment)	

**MAREL SCALE**  
**CALIBRATION WT**  
 \_\_\_\_\_

**BASKET OR TOTE COUNT OR TALLY**

\*\*Unit Types: B = Basket, T = Tote, I = Individual (tally), O = Other

Species	Disp. Code	**Unit Type	List Individual Sample Weights	Total Sample Weight	# of Sample Units	Avg. Weight per Unit	Total # of Units	Total Est. Weight
1						_____ . ____		
2						_____ . ____		
3						_____ . ____		
4						_____ . ____		
5						_____ . ____		
6						_____ . ____		
7						_____ . ____		
8						_____ . ____		
9						_____ . ____		
10						_____ . ____		

**VOLUME-TO-VOLUME**

CATCH PILE SHAPE AS SEEN FROM ABOVE:

**Trapezoid**  
  
**Rectangle**  
  
**Triangle**  
  
**Full Oval or Half-Oval**  
  
**Other Shapes or Combination:** Draw and label all dimensions in comments.  
 DEPTHS: Representative depths (ft) systematically taken throughout the catch pile. Include a single depth of 0.0 ft if the catch pile is not in a checker pen or slopes to zero.  
 \_\_\_\_\_ = \_\_\_\_\_ Volume ft³

**COMMENTS :**  
 \_\_\_\_\_

<b>A) Total Haul Vol.</b> _____ ft³	<b>B) Total Subsample Vol.</b> Basket(s) X 1.47 ft³ = _____ ft³ Tote(s) X 2.65 ft³ = _____ ft³ Other(s) X _____ ft³ = _____ ft³	<b>C) Sample Weight Multiplier</b> (A ÷ B) _____ >> Copy to Front >>
<b>OTHER SUBSAMPLE TYPES</b>	Unit Type <input type="checkbox"/> Basket <input type="checkbox"/> Tote <input type="checkbox"/> Weight <input type="checkbox"/> Trap <input type="checkbox"/> Count <input type="checkbox"/> Other	A) Total B) Sample

**DECKLOADING and CUMULATIVE SUM**

Entire Deckloading Haul Range _____	Deckloading Measurements			
	Total Pile Vol. _____	Remainder Pile Vol. _____		
	A) Total Haul Vol. _____			
	_____ ft³ - _____ ft³ = _____ ft³			
Number of Hauls _____	*Est.Meth.: Estimation Method used to obtain species Total Samp. Wgt. for cumulative sum calculation. If not '01' or '11' show all additional calculations & use '98' on front.			
Species	Disp. Code	Total Sampled Weight	*Est. Method	Weight per Haul
1				
2				
3				
4				
5				