

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	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
HAUL INFO	DATE mm/dd/yy	TIME 24 hours	LATITUDE / LONGITUDE (DD MM.M) - LORAN (XXXXX)				NUMBER OF TURNS	TOW SPEED <input type="text"/> kn		WIRE OUT <input type="text"/> fm		
BEGIN HAUL	/ /	:	Station 1 9960 -	Latitude / Bearing	Station 2 9960 -	Longitude / Bearing	WATER TEMP <input type="text"/> ° F		TARGET SPECIES CODE			
BEGIN FISHING	/ /	:	COMMENTS						VERTICAL OPENING ** <input type="text"/> ft			
END HAUL	/ /	:							HORIZONTAL OPENING ** <input type="text"/> ft			
GEAR ONBOARD	/ /	:							DOOR SPREAD ** <input type="text"/> ft			
FISH PUMPING			** Only fill in if gear mounted electronics are used						SAMPLE WEIGHT MULTIPLIER <input type="text"/>			
BEGIN	/ /	:										
END	/ /	:										

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															
2															
3															
4															
5															
6															
7															
8															
9															
10															

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

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

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

VOLUME-TO-VOLUME
 CATCH PILE SHAPE AS SEEN FROM ABOVE:

Trapezoid

$$\left(\frac{W1 + W2}{2} \right) \times L \times \text{Avg. Depth} \times 0.5 = \text{Volume (ft}^3\text{)}$$

Rectangle

$$W \times L \times \text{Avg. Depth} = \text{Volume (ft}^3\text{)}$$

Triangle

$$\left(\frac{W}{2} \right) \times L \times \text{Avg. Depth} \times 0.5 = \text{Volume (ft}^3\text{)}$$

Full Oval or Half-Oval

$$W \times L \times \text{Avg. Depth} \times 0.785 = \text{Volume (ft}^3\text{)}$$

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.

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								

COMMENTS :

A) Total Haul Vol. _____ ft ³	B) Total Subsample Vol. Basket(s) X 1.47 ft ³ = _____ ft ³ Tote(s) X 2.65 ft ³ = _____ ft ³ Other(s) X _____ ft ³ = _____ ft ³	C) Sample Weight Multiplier (A ÷ B) _____
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OTHER SUBSAMPLE TYPES

Unit Type	A) Total	B) Sample
<input type="checkbox"/> Basket <input type="checkbox"/> Tote		
<input type="checkbox"/> Weight <input type="checkbox"/> Trap		
<input type="checkbox"/> Count <input type="checkbox"/> Other		

>> Copy to Front >>

DECKLOADING and CUMULATIVE SUM

Entire Deckloading Haul Range	Deckloading Measurements	
_____ - _____	Total Pile Vol. _____ ft ³	Remainder Pile Vol. _____ ft ³
	A) Total Haul Vol. _____ ft ³	

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				