

PAIR and SINGLE MID-WATER TRAWL HAUL LOG
NMFS FISHERIES OBSERVER PROGRAM
OBPRH OBHAU OBSPP 01/01/21

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

GEAR CODE	GEAR #	HAUL #	HAUL OBS? NO 0 _____ YES 1 _____	ON-EFFORT? NO 0 _____ YES 1 _____	CATCH? NO 0 _____ YES 1 _____	INC TAKE? NO 0 _____ YES 1 _____	WEATHER CODE	WIND SPEED	WIND DIRECTION	WAVE HEIGHT	DEPTH, HAUL BEGIN	GEAR COND CODE
								kn	o	ft	fm	
HAUL INFO	DATE mm/dd/yy	TIME 24 hours	LATITUDE / LONGITUDE (DD MM.M) - LORAN (XXXXX)				NUMBER OF TURNS	TOW SPEED	WIRE OUT	WATER TEMP		
BEGIN HAUL	/ /	:	Station 1	Latitude / Bearing	Station 2	Longitude / Bearing		kn	fm	o F		
BEGIN FISHING	/ /	:					TARGET SPECIES CODE					
END HAUL	/ /	:					DEPTH RANGE, HEADROPE					
GEAR ONBOARD	/ /	:	9960 -		9960 -		DISTANCE BETWEEN BOATS * ft					
FISH PUMPING			VERTICAL OPENING	**	HORIZONTAL OPENING	**	DOOR SPREAD **					
BEGIN	/ /	:				ft						
END	/ /	:				ft						

COMMENTS

*Only fill in for pair trawl trips
 **Only fill in if gear mounted electronics are used

SAMPLE WEIGHT MULTIPLIER	_____
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SPECIES		SUB-SAMPLE WEIGHT	POUNDS	DISP CODE	WEIGHT		SPECIES		SUB-SAMPLE WEIGHT	POUNDS	DISP CODE	WEIGHT	
NAME	CODE				D/R	ESTIMATION METHOD CODE	NAME	CODE				D/R	ESTIMATION METHOD CODE

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

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DATE LANDED mm/yy	/
HAUL #	

SORTING METHOD Check all that apply	ESTIMATION METHODS	
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

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.

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) _____ >> Copy to Front >>												
OTHER SUBSAMPLE TYPES	<table border="1"> <tr> <td>Unit Type</td> <td>A) Total</td> <td>B) Sample</td> </tr> <tr> <td><input type="checkbox"/> Basket <input type="checkbox"/> Tote</td> <td></td> <td></td> </tr> <tr> <td><input type="checkbox"/> Weight <input type="checkbox"/> Trap</td> <td></td> <td></td> </tr> <tr> <td><input type="checkbox"/> Count <input type="checkbox"/> Other</td> <td></td> <td></td> </tr> </table>	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			
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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