

TWIN TRAWL HAUL LOG
NMFS FISHERIES OBSERVER PROGRAM
OBTH OBHAU OBSPP 01/01/21

OBS/ TRIP ID	
DATE LAND (mm/yy)	/ /
PAGE #	OF

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 _____ kn DIRECTION _____ °		WAVE HEIGHT _____ ft	DEPTH, HAUL BEGIN _____ fm	GEAR COND CODE
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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 _____ kn	WIRE OUT _____ fm	WATER TEMP _____ °F
BEGIN HAUL	/ /	:	Station 1 9960 -	Latitude / Bearing	Station 2 9960 -	Longitude / Bearing				

BEGIN FISHING	/ /	:					TARGET SPECIES	CODE	NET OBSERVED Port 1 _____ Starboard 2 _____ Both 3 _____
END HAUL	/ /	:	9960 -		9960 -				

GEAR ONBOARD	/ /	:							**Only fill in if gear mounted electronics are used	VERTICAL OPENING _____ ft
COMMENTS									HORIZONTAL OPENING _____ ft	
								SAMPLE WEIGHT MULTIPLIER _____	DOOR SPREAD _____ ft	

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		_____					11		_____						
2		_____					12		_____						
3		_____					13		_____						
4		_____					14		_____						
5		_____					15		_____						
6		_____					16		_____						
7		_____					17		_____						
8		_____					18		_____						
9		_____					19		_____						
10		_____					20		_____						

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

OBS/TRIP ID	
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

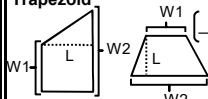
BASKET OR TOTE COUNT OR TALLY

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

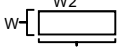
Species	Disp. Code	**Unit Type	List Individual Sample Weights	Total Sample Weight	# of Sample Units	Avg. Weight per Unit	Total # of Units	Total Est. Weight
1						_____		
2						_____		
3						_____		
4						_____		
5						_____		
6						_____		
7						_____		
8						_____		
9						_____		
10						_____		

VOLUME-TO-VOLUME

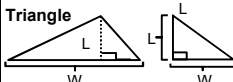
CATCH PILE SHAPE AS SEEN FROM ABOVE:

Trapezoid


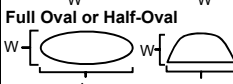
$$\left(\frac{\text{Width 1} + \text{Width 2}}{2} \right) \times \text{Length} \times \text{Avg. Depth} \times 0.5 = \text{Volume (ft}^3\text{)}$$

Rectangle


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

Triangle


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

Full Oval or Half-Oval


$$\left(\frac{\text{Width}}{2} \right) \times \text{Length} \times \text{Avg. Depth} \times 0.785 = \text{Volume (ft}^3\text{)}$$

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	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.		
	_____ ft ³	_____ ft ³		
	= _____ 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				