

PAIR and SINGLE MID-WATER TRAWL HAUL LOG
NMFS FISHERIES OBSERVER PROGRAM
OBPRH OBHAU OBSPP 05/01/16

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 _____ 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	
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	TARGET SPECIES CODE					
BEGIN FISHING	/ /	:										
END HAUL	/ /	:										
GEAR ONBOARD	/ /	:	9960 -		9960 -		DEPTH RANGE, HEADROPE _____ fm					
FISH PUMPING			VERTICAL ** OPENING	HORIZONTAL ** OPENING	DOOR SPREAD **							
BEGIN	/ /	:										
END	/ /	:										
			ft		ft		DISTANCE BETWEEN BOATS * _____ ft					

COMMENTS

*Only fill in for pair trawl trips
 **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

**CATCH ESTIMATION WORKSHEET
NMFS FISHERIES OBSERVER PROGRAM**

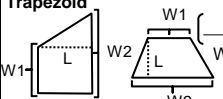
05/01/16

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

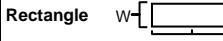
SORTING METHOD Check all that apply 1 <input type="checkbox"/> Picked 2 <input type="checkbox"/> Shoveled 3 <input type="checkbox"/> Deckloaded 4 <input type="checkbox"/> Conveyor System 5 <input type="checkbox"/> Pumping System 9 <input type="checkbox"/> Other (Comment)	ESTIMATION METHODS 01 = Actual (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)	
	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


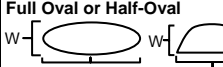
$$\left(\frac{W1 + W2}{2} \right) \times L \times \text{Avg. Depth} \times 0.5 = \text{Volume (ft}^3\text{)}$$

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 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. _____ 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				