	SPC/FFA REGIONAL PURSE SEINE OBSERVER FORM PS - 4 LENGTH MEASUREMENT																						
OBSE	18 ERVER NA	ME	VESSEL NAME								OBSERVER TRIP ID NO.									PAGE		OF	
	fill only or grab, spill, o	if GRAB what is the Target No. of SAMPLES from each BRAIL measured of the sampled			How many	What " Use	What "Other" ? Use code (from back of form)			IL 2 end			PS-4 FORMS USE THIS ONE SAM of			Aluminium (total) Measurin			g board Ot			h h	m m rated this set ? Y / N mm
SAMPLING DETAILS	COMME	NTS ON SAMPLIN	G PROTOC	OL											UF - UPPE LF - LOWE TW - TOTAL TL - TOTAI CL - CARAI	O FORK I O FORK I (TIPS OF H - TO EN	N TAIL (T N TAIL (E WINGS - D OF TAI	UNA, SI BILLFISH RAYS)	H) BL - BILL LENGTH (DEAD BIRDS)				
SAI	tallies:	Full (1)	7/8	brails ((2)	3/4 brails (3)				2/3 brails (4)				1/3	1/3 (6) 1/4 (7)			1/8 (8) TOT.		TAL BRAILS		SUM OF ALL BRAILS	
BRAI		No.		Γ	No.		I		No.		No.		No.		No. No.		No.					see back of form	
	Pattern fullness samples	1 2	3	4	5	6 7	8	9	10	11	12	13	14	15	5 16	17	18	19	20	21	22 2	23 24	More brails? Start a new form
SI	PECIES	LENGTH	SPEC	CIES	LENGT	H S	PECIES	LE	ENGTH	SF	ECIES	LEN	GTH		SPECIES	S	LE	NGTH		SPECI	ES	LE	NGTH
CODE 1		(cm)	CODE 21		(cm)	41	CODE 41		(cm)		CODE 61		(cm)		CODE		(cm)			CODE		(cm)	
2			22			42				62				82						102			
3			23			43				63				83						103			
5			24				45				65				85					104			
6			26			46					66				86					106			
7			27			47				67				87						107			
8			28			48				68				88		_			-	108			
9			29			49				69				89						109			
10			30			50				70				90						110			
11			31			51				71				91		+			-	111			
12			32			52				72				92						112			
13			33			53				73				93						113			
14			34			54				74				94						114			
15			35			55 56				75				95 96						115			
17			37			57				77				97						117			
18			38			58				78				98		_			-	118			
19			39			59				79				99		_				119			
20			40			60				80				100		_				120			
	No.	/ sum of length	s	No.	/ sum of le	ngths	No.	sum	of lengths		No. /	sum of le	ngths		No.	/ sum	of length	s		N	lo. / su	m of lengt	าร
totals			SKJ			totals				SKJ				totals						SKJ YFT			
column totals			BET			Column totals				BET				Column totals		+				BET			
<u> </u>					ARGET SP										OTHER SPECIES								
	Number sampled :			J	YFT		BET																
		of lengths :								+						+		\dashv					
		ge length :																					

Observer Name	Put first name first and last name (family name as it would be recorded in a passport) last.								
Vessel Name	Full name of vessel (no abbreviations)								
Observer Trip ID	Use number assigned to the observer by the Observer Programme, for this trip. E.g.: AZA 03-01								
Page of	Number all the PS-4 forms in sequence from the start until the end of the trip.								
Start Set Date & Time	Record the date and time that the ship is using, exactly as it is recorded on Forms PS-2 and PS-3.								

SAMPLING DETAILS

Species Code 1-120

Fill in only one of the three sampling option areas - GRAB, SPILL or OTHER. - Grab Sample In normal GRAB samples target 5 fish from every brail. If fish are large target 4 or 3 per brail. Record the target number. If SPILL sampling - Spill

type record the brail number being sampled. When finished record the number of samples taken from that brail - Other

DA - all discards

DT - only discarded tunas "OTHER" samples can

only be one of: BS - bycatch - select species (one or more different species but not all species)

(use code) SS - Species of special interest. Include the sex with the length eg. "male" 26cm = M 26, "unknown" 56cm = U 56

LB - Live-fish Brailing - separate the samples on different pages if live fish brailing is used prior to standard brailing.

Brail times (start + end) Record when first brail came onboard (start) and when last brail came onboard (end) for transfer to Form PS-3.

Usually BRAIL 1., but a vessel may use different brails (see PS-1). The correct brail number recorded on the PS-4 form, must be the same brail number on the PS-4 form. (Remember - when you fill in the brail number on the PS-4 you are indicating the brail type and brail capacity Which brail? as that was recorded on the PS-1 form. Use a new form when the brail is changed during a set. If two brail sizes are used: always prepare two forms, even if only measuring from one brail size, as the "sum of all brails" must be calculated for each brail size separately!

Forms used this sample: Record forms used only for this sample as "number of the form used" out of "total used". Eq.: "1 of 3", "2 of 3".

Target samples per brail If "normal" sampling, record No. of fish observer tried to measure from each brail. If not normal sampling dash it.

Record whether callipers, flat ruler or deck tape was used. N.B. - do not use tape measures. Measuring instrument

Did you check the zero of the measuring instrument. When zeroed was the intrument reading more or less than zero e.g. Callibrated this set? '+4mm'. If the callipers shows a length that is 30.4 cm when the true length is 30 cm. Record '+4 mm'.

Explain why you sampled as you did, especially if you tick "Other" or collect two samples. Were their any problems? If conditions allow during GRAB sampling, experienced observers are asked to use two forms when brailing mixed tuna sets Comments on Protocol

- one for "GRAB" species composition and the second for "OTHER - BET/YFT only" species composition sampling.

Record species measured fish in the order they are sampled - follow field numbers down one column and then the next, etc.

Brail tallies Record a tally mark for every full, 7/8, 3/4 (etc)., brail that comes onboard. Tally counts and write totals in boxes.

a simple count of all the brails that came onboard, whether full or not full. Add numbers in all corner boxes together. Total No. of Brails Sum of ALL Brails must be calculated using the work area below. If two brail sizes are used, calculate each one on a separate form.

Brail pattern - fullness and samples - record a fullness code (1-8) and the number of fish measured for every brail that comes on board

MAIN BLOCK

To ease adding the lengths of each species in the entire sample first count each species and add the lengths of each species

Column totals in each column, then add totals from each column together before making the average length calculations.

AVERAGE LENGTH CALCULATIONS (these totals are also used to check data entry, so must be accurately added) A Number Sampled Write in the total number of each species that were sampled in this set (add the column totals for a species). B Sum of Lengths Add lengths of each species sampled in each column then add the column totals for each species together.

C Average Length To get the "average length" (C) of each species in the sample divide the "sum of lengths" (B) by the "number sampled" (A).

IMPORTANT POINTS ON THE SAMPLING PROTOCOL

For most sets observers carry out either a "Grab" or a "Spill" sample, as they have been drected and are equipped to do.

2 If grab sampling spread sampling throughout the entire brailing process. Try to take 5 tuna from every brail. If a specimen is missed occasionally try to get an extra one from the next brail but try to keep the number of tuna steady throughout the sampling process. If brailing is too fast measure less than 5 tuna per brail but try to sample the same number from every brail. If problems describe in comments.

- 3 Always get a random sample. Don't choose fish just because they are the easiest size to handle or you haven't had one like that yet.
- 4 Do not include measurements from fish that crew select even though they are trying to help.
- 5 IT is very, very important to correctly identify juvenile yellowfin and bigeye tuna!
- If using a deck tape, ensure one end is placed against a flat surface or has a nose block. Make sure the end of the tape starts at 0 cm. 6 If using deck tape, make sure fish is straight on tape when measuring. Never bend tail down to measure. Look directly over top of tail.
- 7 Do not measure damaged fish.
- 8 Record lengths to the nearest centimetre below e.g. a 69.9 cm fish will be recorded as 69 cm.
- ALWAYS record all species and lengths in full and in order. Follow the numbered order. Do not use ditto marks! 9
- 10 If taking an "Other" sample, start a new PS-4 page, tick "Other" and write what that other is. Most often this will be lengths from every species still on deck, ready to throw away after brailing is ended. Record as "all discards". Remember to still collect specimens at random, as trained. Do not be tempted to choose different (or same) sizes.

N.B. - "All discards" includes target discards (SKJ-YFT-BET) and bycatch discards. "All discard bycatch" is for sampling only bycatch discards. Usually an "Other" sample is collected after, or along with, a "Normal" sample but it could also be collected as an only sample.

