

INPFC
DOCUMENT
Ser. No. 2754
Rev. No. ....
.....

NUMBER OF MARINE MAMMALS TAKEN INCIDENTALLY BY  
JAPANESE MOTHERSHIP GILLNET AND LAND-BASED  
DRIFTNET SALMON FISHERIES IN 1983

Fisheries Agency of Japan

1984 January

Contents :

1. Number of marine mammals taken incidentally by mothership gillnet salmon fishery by 1°X 1° area and 10-day period in 1983.

- 1-1. Dall's porpoise
- 1-2. Northern fur seal

2. Number of Dall's porpoise taken incidentally by land-based driftnet salmon fishery by 2°X 5° area and 10-day period in 1983.

1. Number of marine mammals taken incidentally by mothership gillnet salmon fishery by 1°X 1° area and 10-day period in 1983

1-1 Dall's porpoise

	68E	170E	72E	74E	76E	78E	180	78W	76W						
59N	Grand-total				0	5	5	86	100	100	37	0			
					0	3	1	16	39	43	13	0			
					0.6	0.2	0.186	0.39	0.43	0.351					
58N					0	8	4	36	62	80	86	80	110	58	8
					0	2	0	16	17	21	25	36	34	25	5
					0.25	0	0.444	0.274	0.263	0.291	0.45	0.309	0.431	0.625	
57N					20	25	26	54	76	92	76	46	80	66	7
					3	2	8	7	12	21	17	12	37	37	2
					0.15	0.08	0.308	0.13	0.158	0.228	0.224	0.261	0.463	0.561	0.286
56N					29	91	87								
					15	35	30								
					0.517	0.385	0.345								
55N					0	70	110	105	111						
							54	35	61						
					0	0.491	0.333	0.55							
54N					5	133	133	33	48	64					
					4	66	51	15	13	32					
					0.8	0.496	0.383	0.455	0.271	0.5					
53N					1	72	147	115	49	8	16				
					0	44	100	37	18	2	6				
					0	0.611	0.68	0.322	0.367	0.25	0.375				
52N					45	83	149	159	187	472	722				
					13	18	64	102	80	207	243				
					0.289	0.217	0.43	0.642	0.428	0.439	0.337				
51N					2	33	68	121	303	619	765				
					2	7	40	47	103	243	215				
					1	0.212	0.588	0.388	0.34	0.393	0.281				
50N					28	46	203	331	460						
					5	18	69	114	146						
					0.179	0.391	0.34	0.344	0.317						
49N					44	43	58	35	77						
					3	4	1	4	14						
					0.068	0.093	0.017	0.114	0.182						
48N					51	69	124	82	107						
					4	4	13	5	14						
					0.078	0.058	0.105	0.061	0.131						
47N					98	121	147	123	132						
					8	13	23	11	20						
					0.082	0.107	0.156	0.089	0.152						

By fleet

	Kizan Maru	Meiyo Maru	Nojima Maru	Jinyo Maru	Total
FCZ	1654	1509	1462	1592	6217
	602	555	641	601	2399
	0.363	0.367	0.433	0.377	0.385
High Sea	623	763	727	637	2750
	123	170	138	156	587
	0.197	0.222	0.189	0.244	0.213
Total	2277	2272	2189	2229	8967
	725	725	779	757	2986
	0.318	0.319	0.355	0.339	0.332

LEGEND

Upper : Number of operations (A)  
 Middle: Number of Dall's porpoise taken (B)  
 Lower : C P U F ( B/A )

1-1 (con't)

	68E	170E	72E	74E	76E	78E	180	78W	7E					
59N	June-total				0	4	3	26	30	49	21	0		
					0	3	1	5	14	24	11	0		
					0.75 0.333 0.192 0.467  0.49 0.524									
58N				0	8	0	21	25	32	26	28	63	35	1
				0	2	0	13	11	8	9	13	22	20	1
				0.25   0.619  0.44  0.25 0.346 0.464 0.349 0.571										
57N				17	19	0	9	17	19	1	31	55	46	0
				3	2	0	2	3	6	1	11	23	25	0
				0.176 0.105   0.222 0.176 0.316  1 0.355 0.418 0.565										
56N				17	45	22								
				11	20	10								
				0.647 0.444 0.455										
55N		0	39	64	59	53								
				24	29	28								
				0.375 0.492 0.528										
54N	2	96	42	14	35	42								
	0	48	17	7	10	24								
	0	0.5	0.405	0.5	0.286	0.571								
53N	1	44	94	73	30	1	5							
	0	29	54	21	13	0	3							
	0	0.659	0.574	0.288	0.433	0	0.6							
52N	22	43	83	96	88	241	346							
	7	7	41	72	50	109	110							
	0.318	0.163	0.494	0.75	0.568	0.452	0.318							
51N	2	13	33	60	133	248	265							
	2	2	11	20	37	84	73							
	1	0.154	0.333	0.333	0.278	0.339	0.275							
50N		24	29	79	116	133								
		3	7	20	47	49								
		0.125	0.241	0.253	0.405	0.368								
49N		44	43	58	35	69								
		3	4	1	4	10								
		0.063	0.093	0.017	0.114	0.145								
48N		51	69	124	82	107								
		4	4	13	5	14								
		0.078	0.058	0.105	0.061	0.131								
47N		98	121	147	123	132								
		8	13	23	11	20								
		0.082	0.107	0.156	0.089	0.152								
46N														

By fleet

	Kizan Maru	Meiyo Maru	Nojima Maru	Jinyo Maru	Total
FCZ	615	644	902	649	2810
	226	235	406	263	1130
	0.367	0.364	0.450	0.405	0.402
High Sea	547	556	300	508	1911
	98	120	37	112	367
	0.179	0.215	0.123	0.220	0.192
Total	1162	1200	1202	1157	4721
	324	355	443	375	1497
	0.278	0.295	0.368	0.324	0.317

1-1 (cont)

	68E	170E	72E	74E	76E	78E	180	78W	76W
59N		Early-June							
58N									
57N									
56N									
55N									
54N									
53N		1	1	7					
				1					
		0	0	0.143					
52N	2	1	2	21	13	3	1		
			1	16	10				
	0	0	0.5	0.762	0.769	0	0		
51N			2	8	24	23	22		
				4	5	1	4		
			0	0.5	0.208	0.043	0.182		
50N			21	11	19	13	4		
			1	1	3	1			
			0.048	0.091	0.158	0.077	0		
49N			44	43	58	35	68		
			3	4	1	4	8		
			0.068	0.093	0.017	0.114	0.118		
48N			51	69	124	82	107		
			4	4	13	5	14		
			0.078	0.058	0.105	0.061	0.131		
47N			98	121	147	123	132		
			8	13	23	11	20		
			0.082	0.107	0.156	0.089	0.152		
46N									

By fleet

	Kizan Maru	Meiyo Maru	Nojima Maru	Jinyo Maru	Total
	43	43	43	43	172
FCZ	5	9	28	5	47
	0.116	0.209	0.651	0.116	0.273
	343	342	300	344	1329
High Sea	37	26	37	36	136
	0.107	0.076	0.123	0.104	0.102
	386	385	343	387	1501
Total	42	35	65	41	183
	0.108	0.090	0.189	0.105	0.121

	68E	170E	72E	74E	76E	78E	180	78W	76W
59N	Mid-June								
58N									
57N									
56N									
55N			1						1
			0						1
54N		43	3						1
		16							
		0.372	0						0
53N	1	15	43	24	12	1			4
		7	15	15	7				2
	0	0.467	0.349	0.625	0.583	0			0.5
52N	15	40	77	50	55	151	191		
	6	6	36	32	29	69	68		
	0.4	0.15	0.468	0.64	0.527	0.457	0.356		
51N	2	10	31	52	94	170	193		
	2	1	11	16	23	50	52		
	1	0.1	0.355	0.308	0.245	0.294	0.269		
50N			3	18	60	103	129		
			2	6	17	46	49		
			0.667	0.333	0.283	0.447	0.38		
49N									1
									2
									2
48N									
47N									
46N									

By fleet

	Kizan Maru	Meiyo Maru	Nojima Maru	Jinyo Maru	Total
FCZ	389	390	429	386	1594
	124	140	166	156	586
	0.318	0.358	0.386	0.404	0.367
High Sea					0
					0
Total	389	390	429	386	1594
	124	140	166	156	586
	0.318	0.358	0.386	0.404	0.367

	68E	170E	74E	76E	78E	180	78W	76W		
59N		Late-June			4	3	26	30	49	21
					3	1	5	14	24	11
					0.75	0.333	0.192	0.467	0.49	0.524
58N			8	21	25	32	26	28	63	35
			2	13	11	8	9	13	22	20
			0.25	0.619	0.44	0.25	0.346	0.464	0.349	0.571
57N			17	19	9	17	19	1	31	55
			3	2	2	3	6	1	11	23
			0.176	0.105	0.222	0.176	0.316	1	0.355	0.418
56N			17	45	22					
			11	20	10					
			0.647	0.444	0.455					
55N			38	64	59	52				
			17	24	29	27				
			0.447	0.375	0.492	0.519				
54N		2	53	39	14	35	41			
			32	17	7	10	24			
		0	0.604	0.436	0.5	0.286	0.585			
53N		28	50	42	18		1			
		22	39	15	6		1			
		0.786	0.78	0.357	0.333		1			
52N	5	2	4	25	20	87	154			
	1	1	4	24	11	40	42			
	0.2	0.5	1	0.96	0.55	0.46	0.273			
51N		3		15	55	50				
		1		9	33	17				
		0.333		0.6	0.6	0.34				
50N										
49N										
48N										
47N										
46N										

By fleet

	Kizan Maru	Meiyo Maru	Nojima Maru	Jinyo Maru	Total
	183	211	430	220	1044
FCZ	97	86	212	102	497
	0.530	0.407	0.493	0.463	0.476
High Sea	204	214		164	582
	61	94		76	231
	0.299	0.439		0.463	0.396
Total	387	425	430	384	1626
	158	180	212	178	728
	0.408	0.423	0.493	0.463	0.447

	68E	170E	72E	74E	76E	78E	180	78W	76W					
59N	July-total				0	1	2	60	70	51	16	0		
					0	0	0	11	25	19	2	0		
					0	0	0.183	0.357	0.373	0.125				
58N				0	0	4	15	37	48	60	52	47	23	7
				0	0	0	3	6	13	16	23	12	5	4
				0	0.2	0.162	0.271	0.267	0.442	0.255	0.217	0.571		
57N				3	6	26	45	59	73	75	15	25	20	7
				0	0	8	5	9	15	16	1	14	11	2
				0	0	0.308	0.111	0.153	0.205	0.213	0.067	0.56	0.55	0.286
56N				12	46	65								
				4	15	29								
				0.333	0.326	0.308								
55N		0	31	46	46	58								
				30	6	33								
				0	0.652	0.13	0.569							
54N		3	37	91	19	13	22							
		4	18	34	8	3	8							
		1.333	0.486	0.374	0.421	0.231	0.364							
53N	0	28	53	42	19	7	11							
	0	15	46	16	5	2	3							
	0.536	0.868	0.381	0.263	0.286	0.273								
52N	23	40	66	63	99	231	376							
	6	11	23	30	30	98	133							
	0.261	0.275	0.348	0.476	0.303	0.424	0.354							
51N	0	20	35	61	170	371	500							
	0	5	29	27	66	159	142							
	0.25	0.829	0.443	0.388	0.429	0.284								
50N		4	17	124	215	327								
		2	11	49	67	97								
		0.5	0.647	0.395	0.312	0.297								
49N		0	0	0	0	8								
		0	0	0	0	4								
						0.5								
48N		0	0	0	0	0								
		0	0	0	0	0								
47N		0	0	0	0	0								
		0	0	0	0	0								
46N														

By fleet

	Kizan Maru	Meiyo Maru	Nojima Maru	Jinyo Maru	Total
FCZ	1039	865	560	943	3407
	376	320	235	338	1269
	0.361	0.369	0.419	0.358	0.372
High Sea	76	207	427	129	839
	25	50	101	44	220
	0.328	0.241	0.236	0.341	0.262
Total	1115	1072	987	1072	4246
	401	370	336	382	1489
	0.359	0.345	0.340	0.356	0.350



	68E	170E	72E	74E	76E	78E	180	76W	76W					
59N	Early-July				1	2	40	48	33	11				
							9	13	18	2				
58N					0	0	0.225	0.271	0.545	0.182				
					2	12	34	23	22	41	47	23	7	
						3	4	8	9	23	12	5	4	
57N					0	0.25	0.118	0.348	0.409	0.551	0.255	0.217	0.571	
					1	8	22	39	56	69	12	20	19	7
						6	4	9	14	15	1	12	11	2
56N					0	0.75	0.182	0.231	0.25	0.217	0.083	0.6	0.579	0.286
					2	15	27							
						7	8							
55N					0	0.467	0.296							
							17	4	17	12				
							8			3				
54N							0.471	0	0	0.25				
53N														
52N														
51N														
50N														
49N														
48N														
47N														
46N														

By fleet

	Kizan Maru	Meiyo Maru	Nojima Maru	Jinyo Maru	Total
	309	179	192	263	943
FCZ	102	65	80	115	362
	0.330	0.363	0.416	0.437	0.383
High Sea	76	207	193	123	599
	25	50	65	44	184
	0.328	0.241	0.336	0.357	0.307
Total	385	386	385	336	1542
	127	115	145	159	546
	0.329	0.297	0.376	0.411	0.354

1-1 (con't)

	68E	170E	72 E	74E	76E	78E	180	78W	76W			
59N	Mid-July						20 2 0.1	22 12 0.545	18 1 0.056	5 0		
58N					2 0	3 0	3 2 0.667	25 5 0.2	38 7 0.184	11 0		
57N				3 0	5 0	18 2	23 1	20 0	17 1	6 1	4 2 0.5	1 0
56N												
55N				10 4 0.4	31 8 0.258	38 12 0.316						
54N												
53N				8 1 0.125	37 29 0.784	29 6 0.207	46 30 0.652					
52N				2 3 1.5	5 1 0.2	32 15 0.469	10 4 0.4	6 2 0.333	15 4 0.267			
51N				13 7 0.538	10 13 1.3	24 3 0.125	8 1 0.125					
50N				18 5 0.278	22 5 0.227	22 12 0.545	21 15 0.714	32 7 0.219	41 19 0.463	107 35 0.327		
49N				9 1 0.111	8 6 0.75	19 3 0.158	73 24 0.329	130 61 0.469	202 70 0.347			
48N												
47N												
46N												

By fleet

	Kizan Maru	Meiyo Maru	Nojima Maru	Jinyo Maru	Total
FCZ	386 160 0.414	385 119 0.309	153 67 0.437	346 129 0.372	1270 475 0.374
High Sea			234 36 0.153	2 0	236 36 0.152
Total	386 160 0.414	385 119 0.309	387 103 0.266	348 129 0.370	1506 511 0.339

	68E	170E	72E	74E	76E	78E	180	78W	76W
59N	Late-July								
58N									
57N								3	1
56N							0	0	
55N			6	5					
			1	1					
			0.167	0.2					
54N		3	22	6					
		2	7	4					
		0.667	0.318	0.667					
53N		5	16	2	2	7	3		
		5	8	2		2			
		1	0.5	1	0	0.286	0		
52N	1	2	14	7	31	114	107		
	1	1	4	2	7	46	34		
	1	0.5	0.286	0.286	0.226	0.404	0.318		
51N		2	1	5	59	141	208		
		1	2	1	35	56	52		
		0.5	2	0.2	0.593	0.397	0.25		
50N			2	9		122	216		
			2	8	40	44	64		
			1	0.889	0.556	0.361	0.296		
49N									4
									0
48N									
47N									
46N									

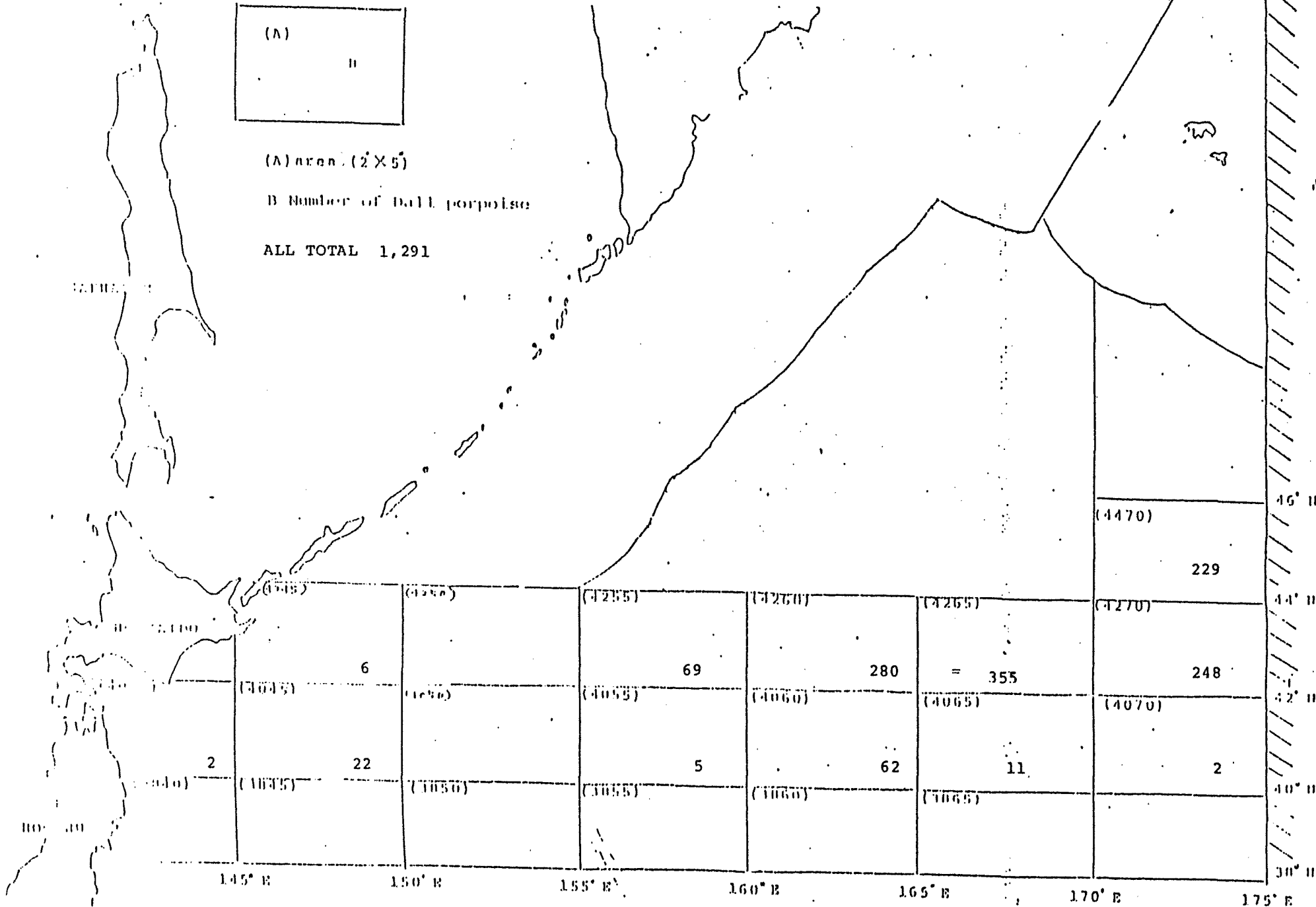
By fleet

	Kizan Maru	Meiyo Maru	Nojima Maru	Jinyo Maru	Total
	344	301	215	334	1194
FCZ	114	136	88	94	432
	0.331	0.451	0.409	0.281	0.361
High Sea				4	4
				0	0
Total	344	301	215	338	1198
	114	136	88	94	432
	0.331	0.451	0.409	0.278	0.360

## 1-2. Northern Fur Seal

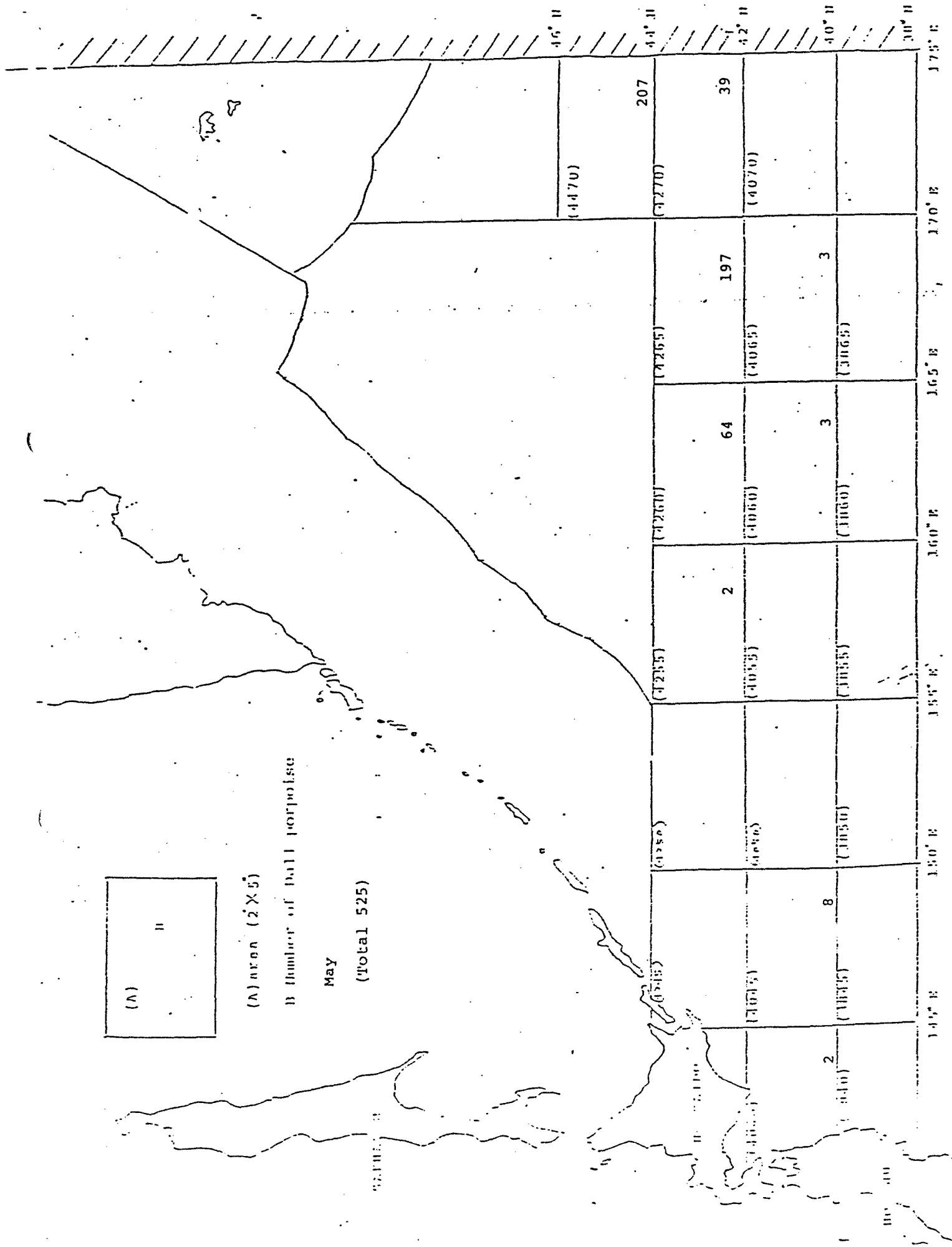
10-days	1°X 1° Area	Number of taken
Early June		-
Mid June	5070 E	1
Late June		-
June total		1
Early July	5071 E	1
Mid July	5072 E	1
Late July	5073 E	1
July total		3
Grand total		4

2. Number of Dall's porpoise taken incidentally by land-based drift net salmon fishery by 2° X 5° area and 10-day period in 1983.

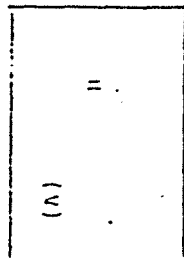


(A)

(A) AREA (2X5)  
 B Number of Bull Porpoise  
 May  
 (Total 525)







(A)

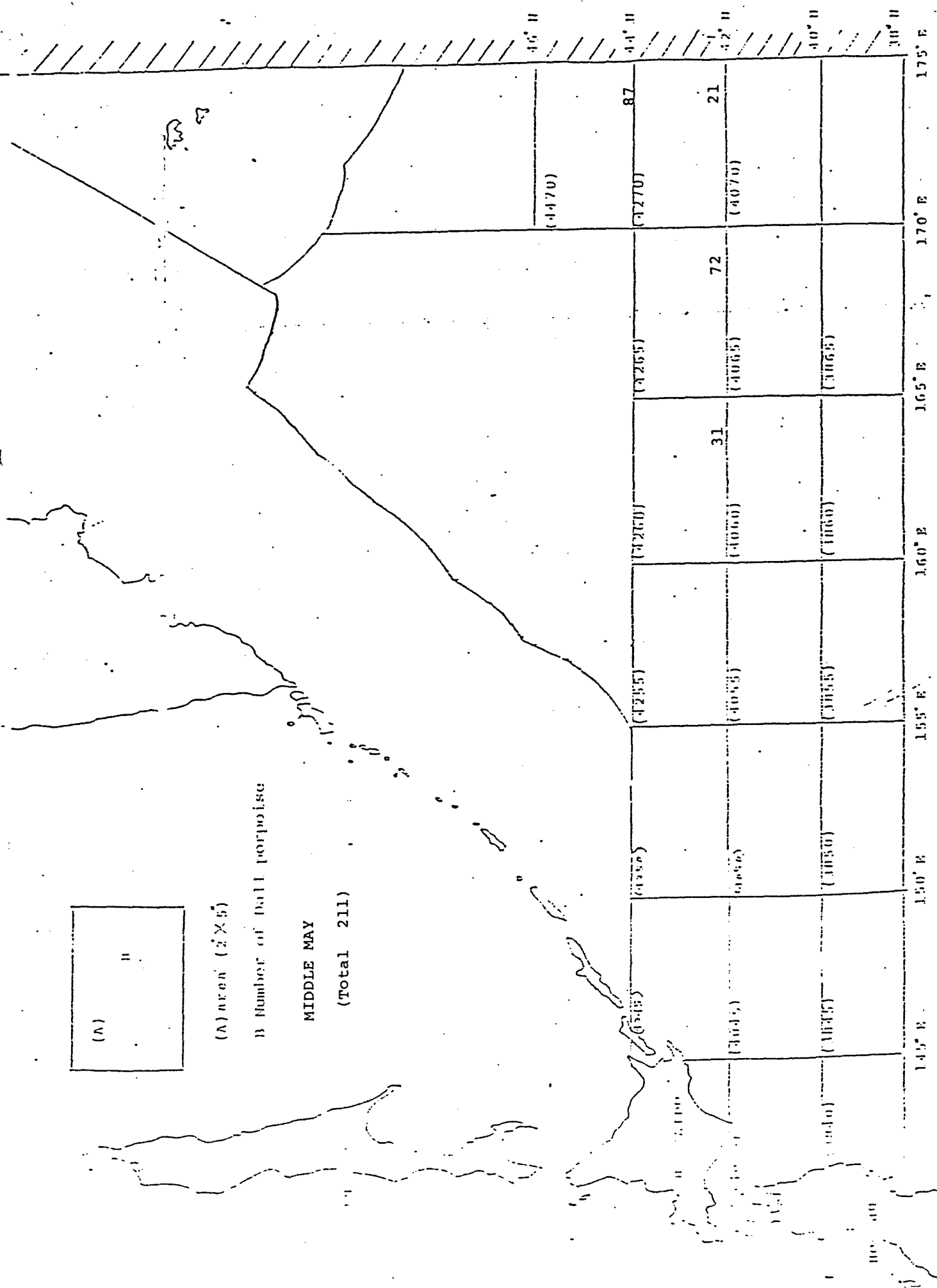
||

(A) area (2x5)

B Number of Ball porpoise

MIDDLE MAY

(Total 211)





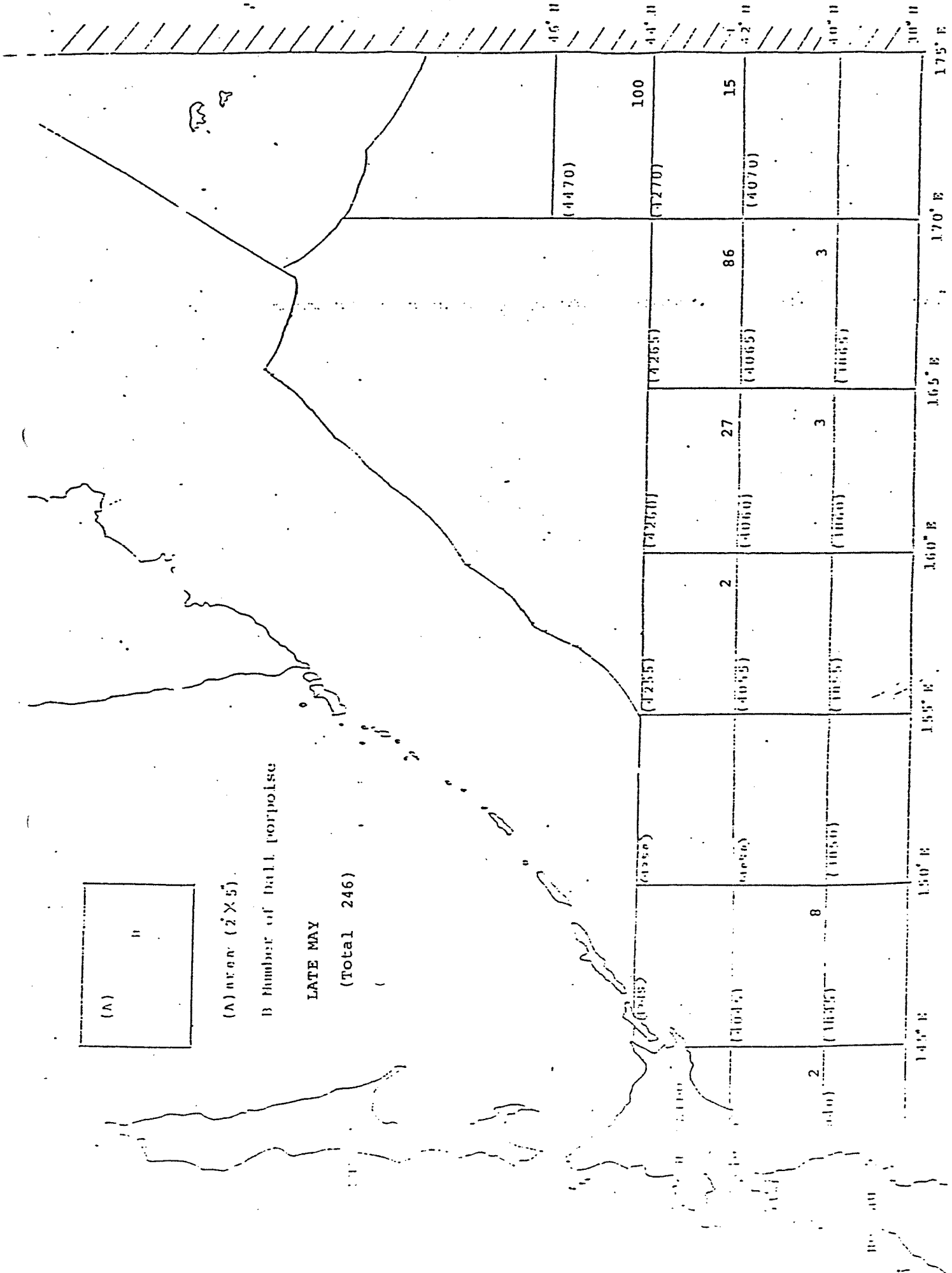
(A)   
 "

(A) over (2 X 5)

B Number of Ball porpoise

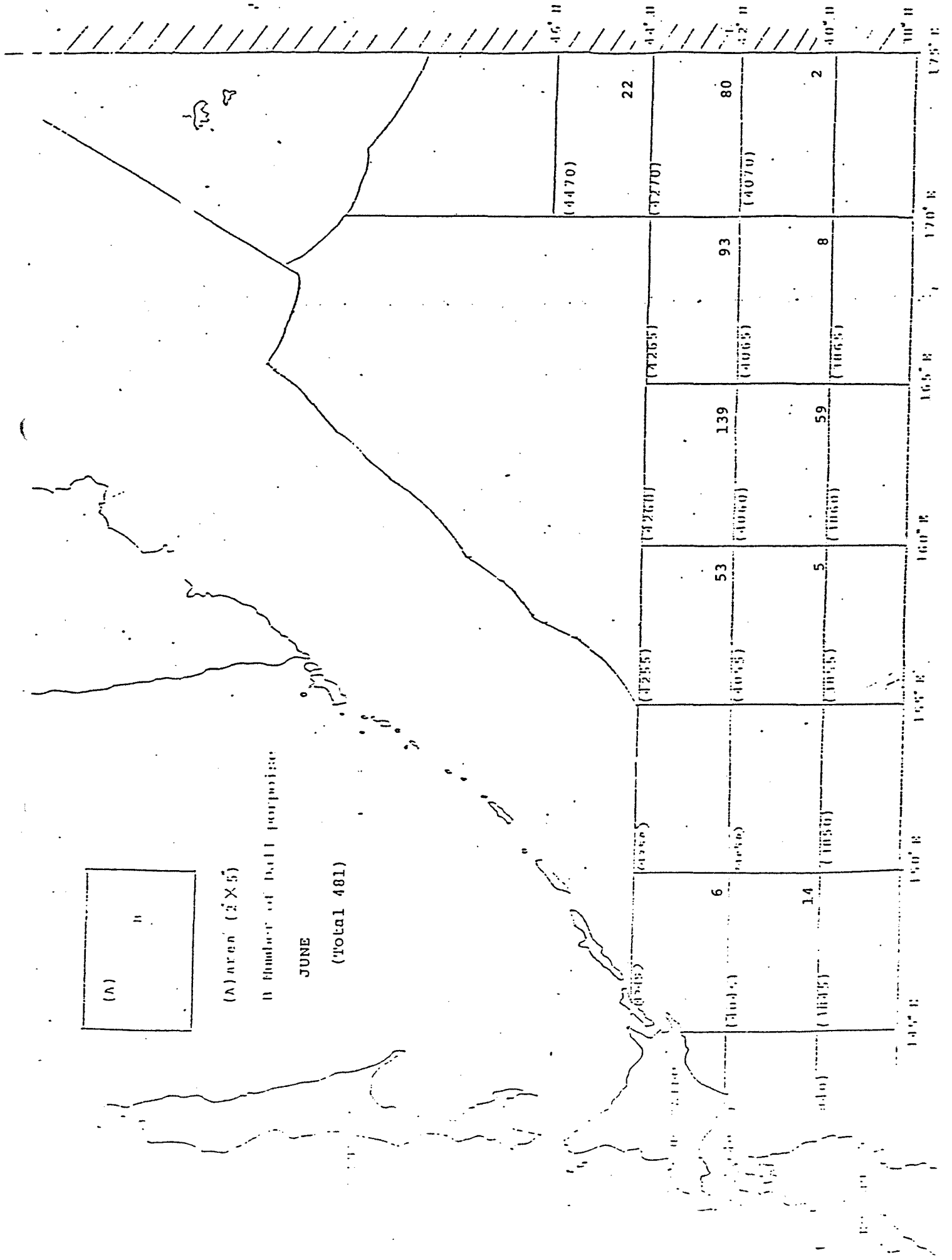
LATE MAY

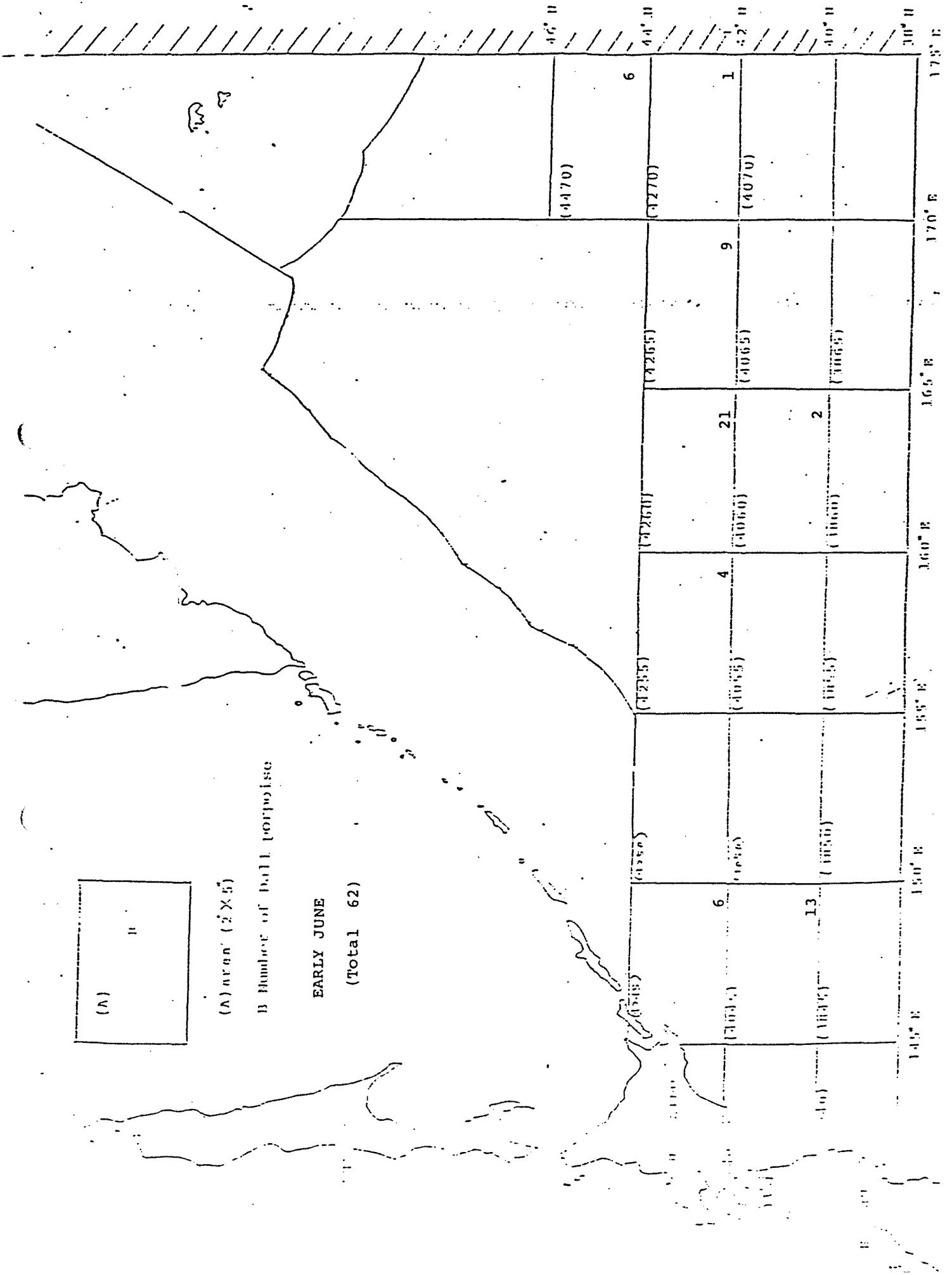
(Total 246)



(A)   
 B

(A) Area (2 X 5)   
 B Number of Ball purpose   
 JUNE   
 (Total 481)

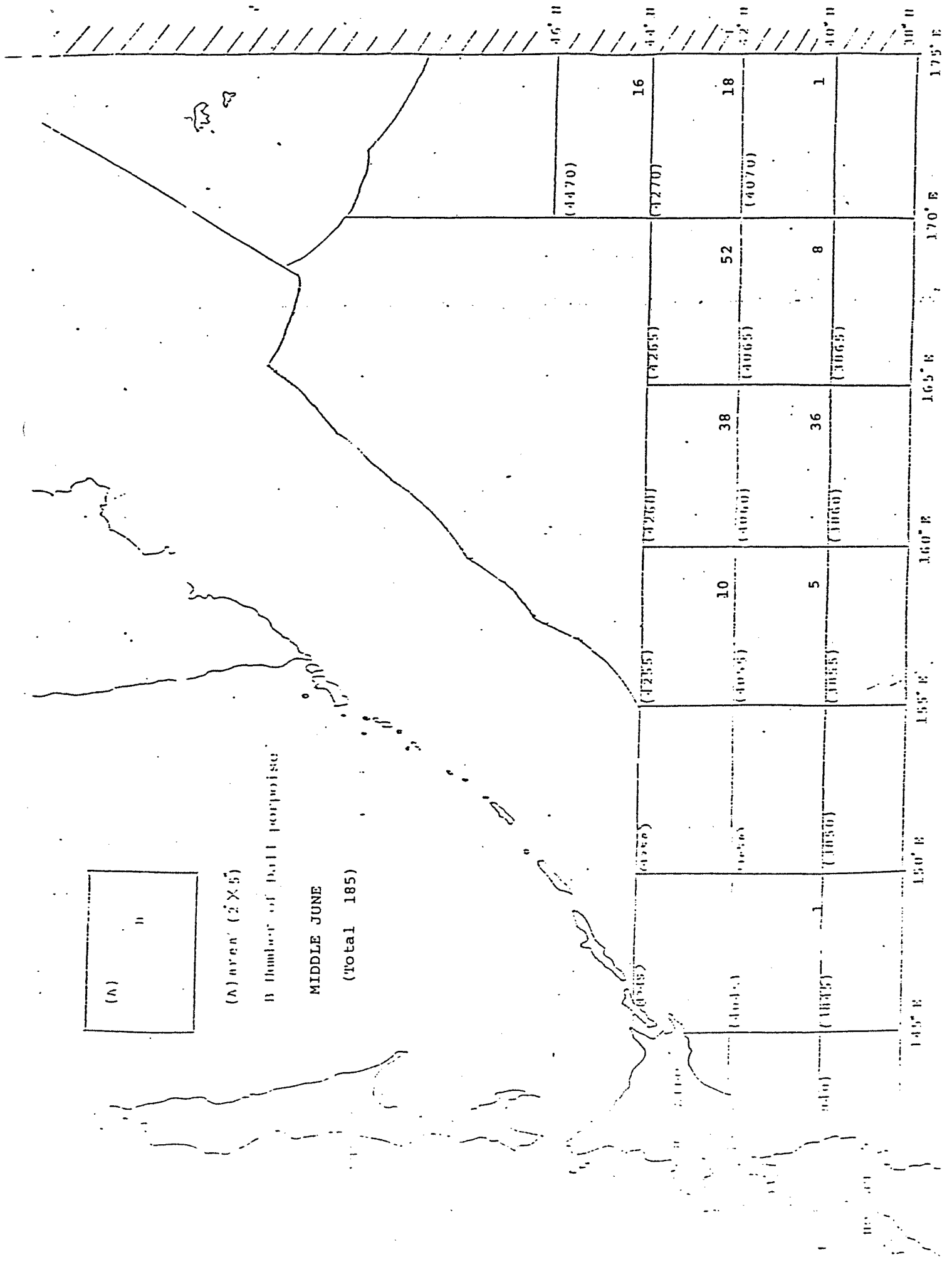


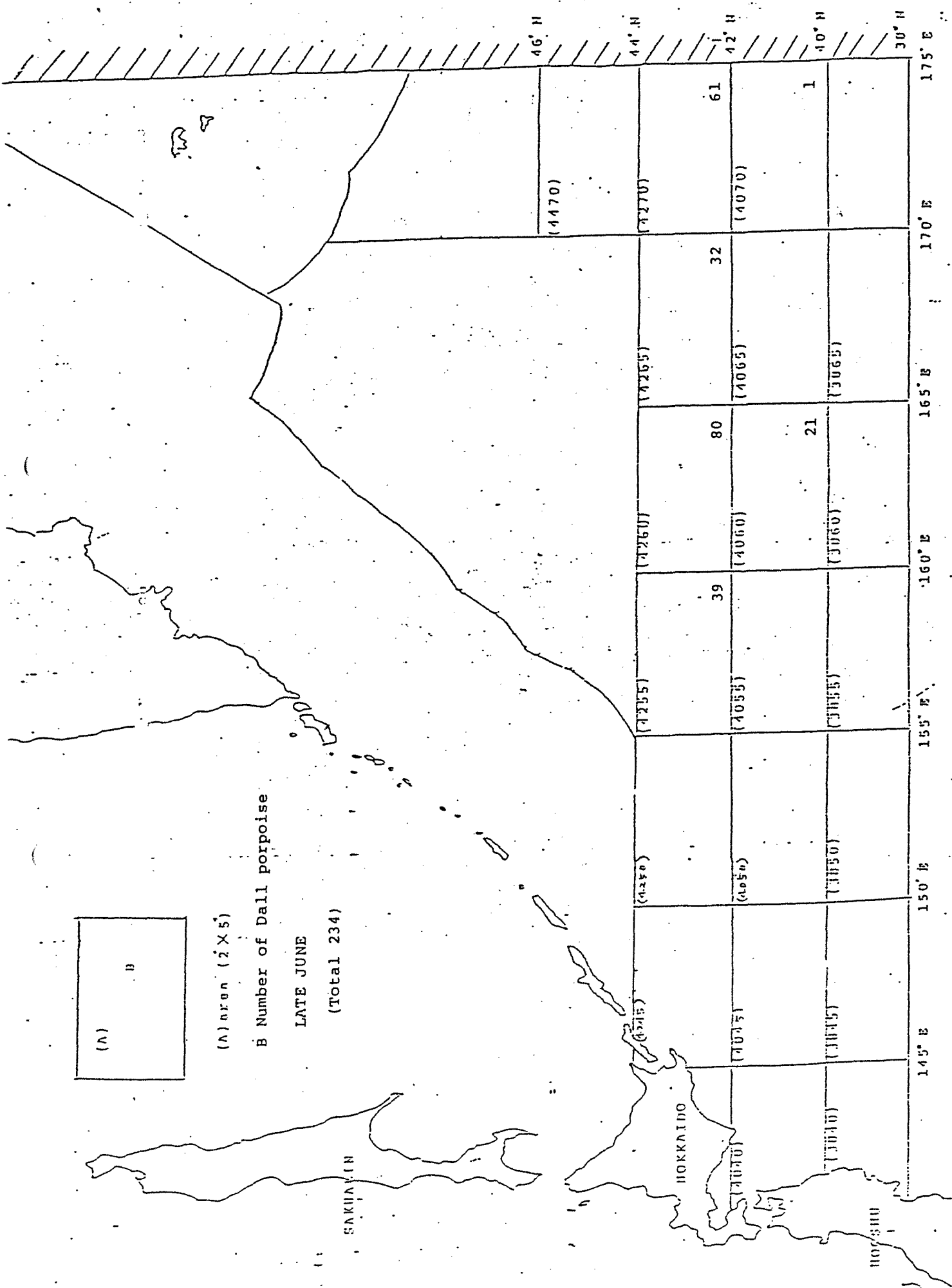


(A)

(A) area (2x5)  
 B Number of Ball porpoise

MIDDLE JUNE  
 (Total 185)



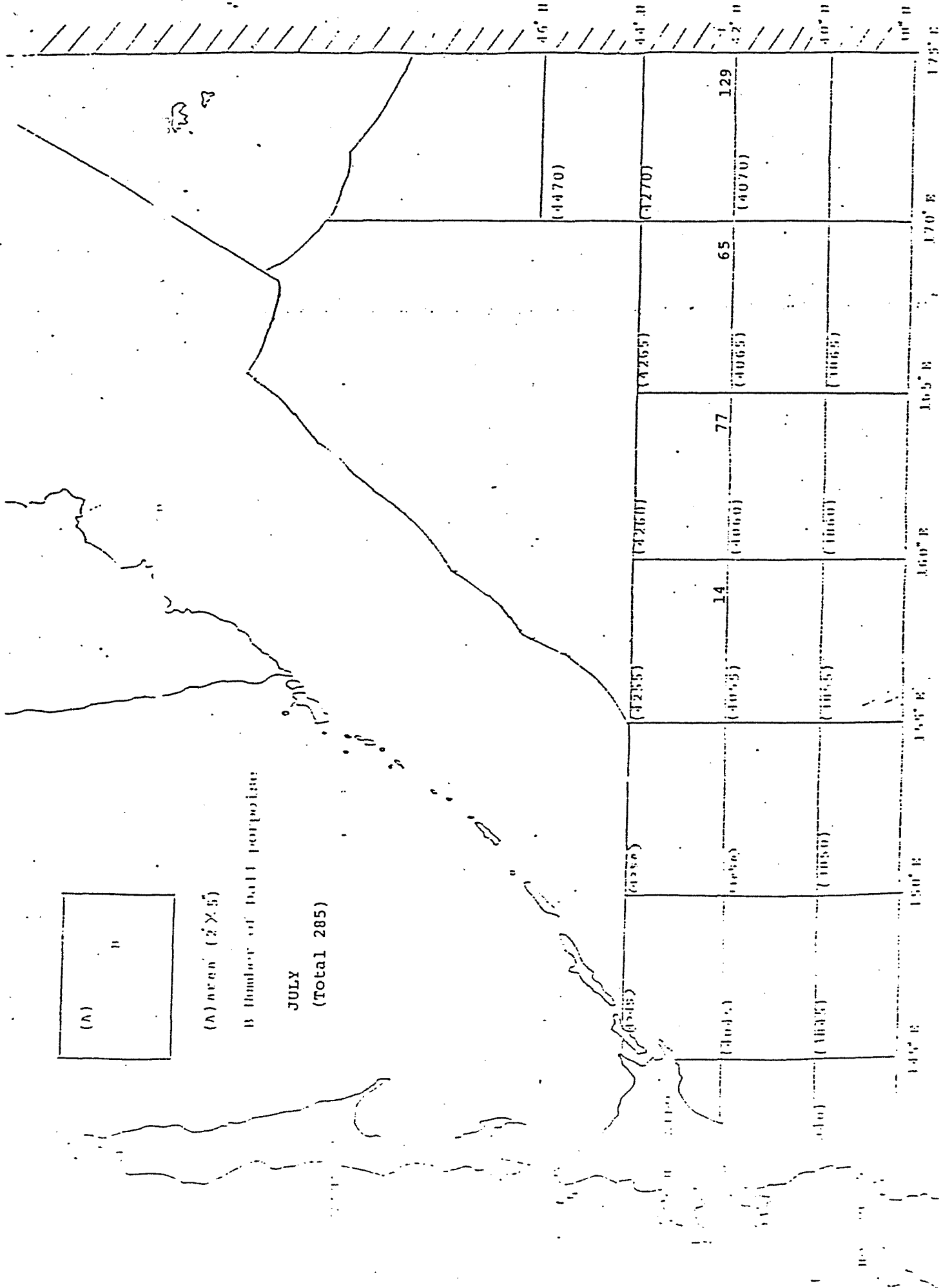


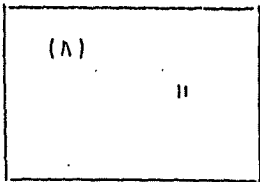
(A) "

(A) Area (2 X 5)

B Number of Bull porpoise

JULY  
(Total 285)



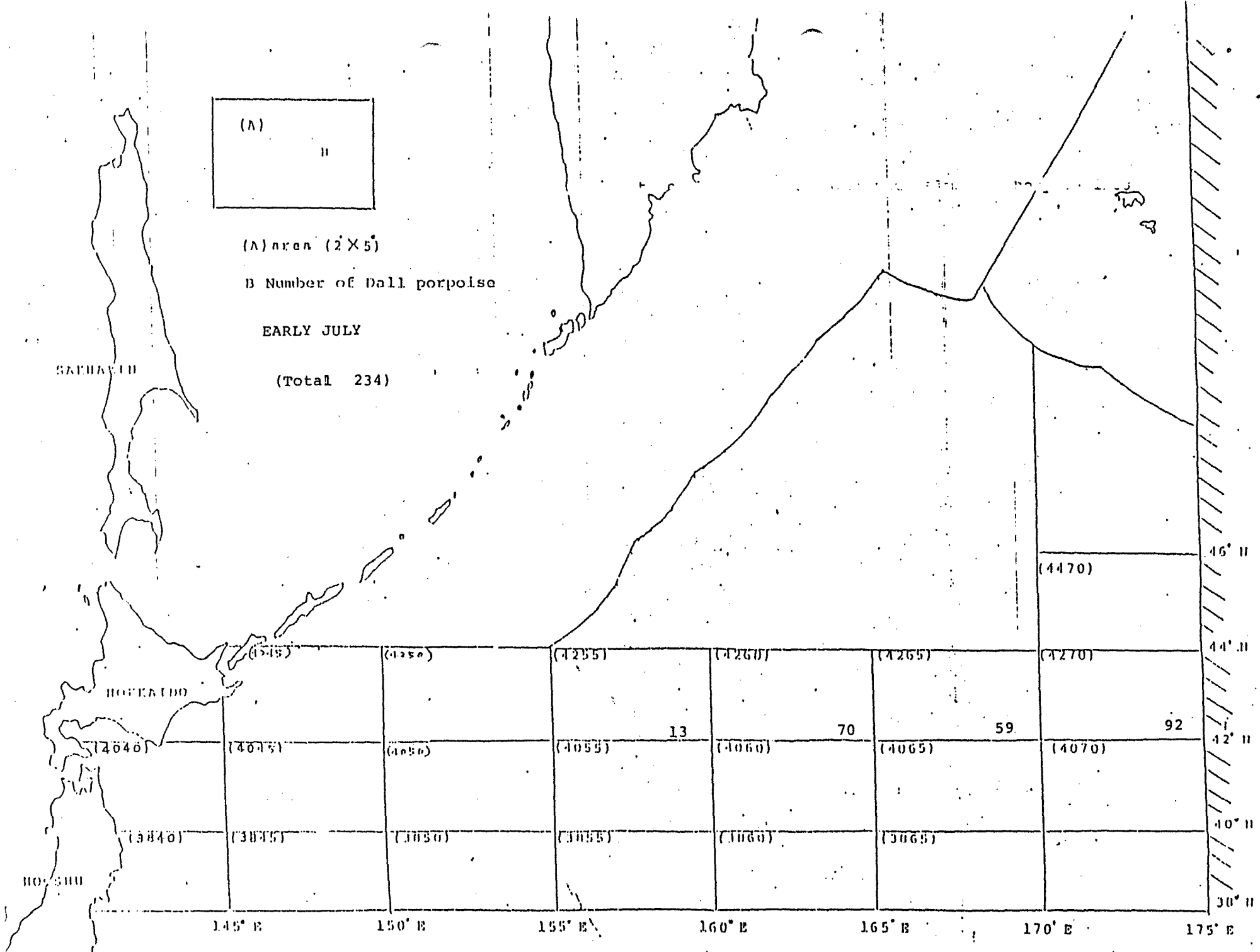


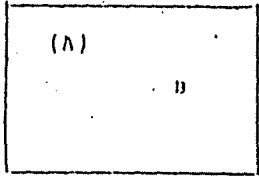
(A) area (2 X 5)

B Number of Dall porpoise

EARLY JULY

(Total 234)





(A) area (2 X 5)

B Number of Dall porpoise

MIDDLE JULY

(Total 51)

SAKHALIN

HOKKAIDO

HONSHU

	(4345)	(4250)	(4255)	(4260)	(4265)	(4270)	46° N
	(4045)	(4050)	(4055)	(4060)	(4065)	(4070)	44° N
	(3045)	(3050)	(3055)	(3060)	(3065)		42° N
	(3045)	(3050)	(3055)	(3060)	(3065)		40° N
	(3045)	(3050)	(3055)	(3060)	(3065)		30° N
145° E	150° E	155° E	160° E	165° E	170° E	175° E	

1

7

6

37