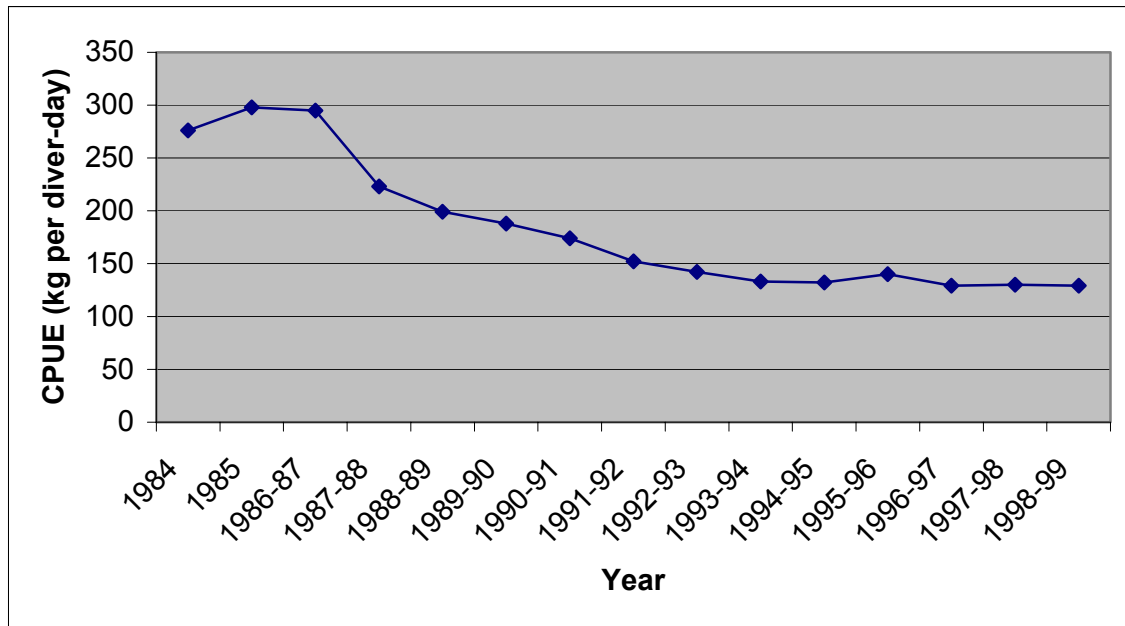


Figure 1: CPUE in PAU 5B, 1984-1999.

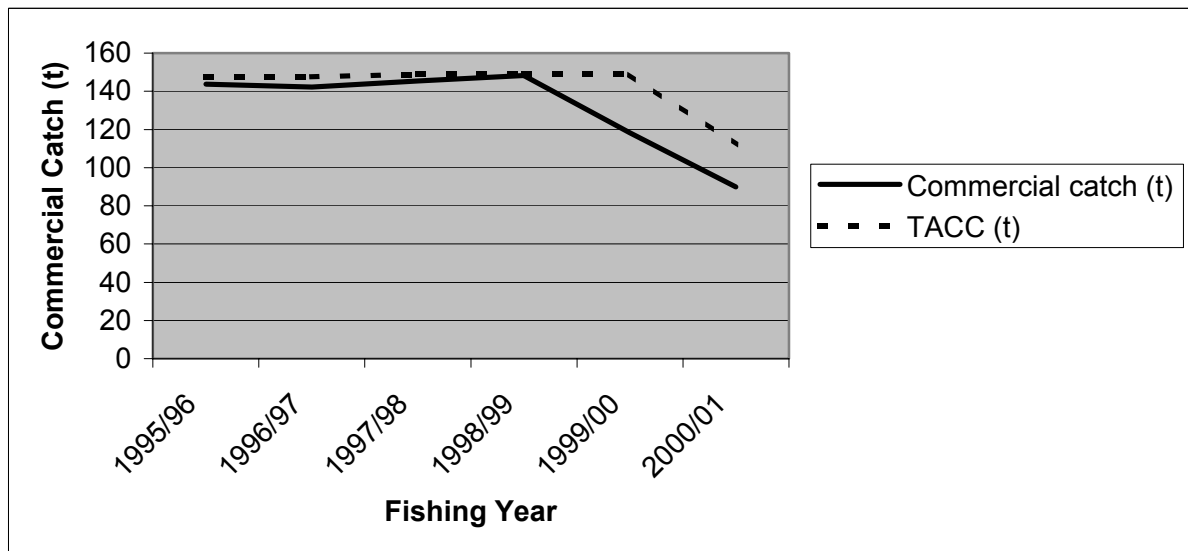
(discussed on page 5)



Source: Annala *et al.* (2001)

Figure 2: Paua 5B (PAU 5B) landings and quota levels in NZ, 1995-2001.

(discussed on page 5)



Source: Ministry of Fisheries (www.environment.govt.nz/indicators/marine/fish)

Figure 3: Statistical areas B1 – B16 for PAU 5B.

(discussed on page 9)



Quota Management Area PAU 5B Statistical Areas

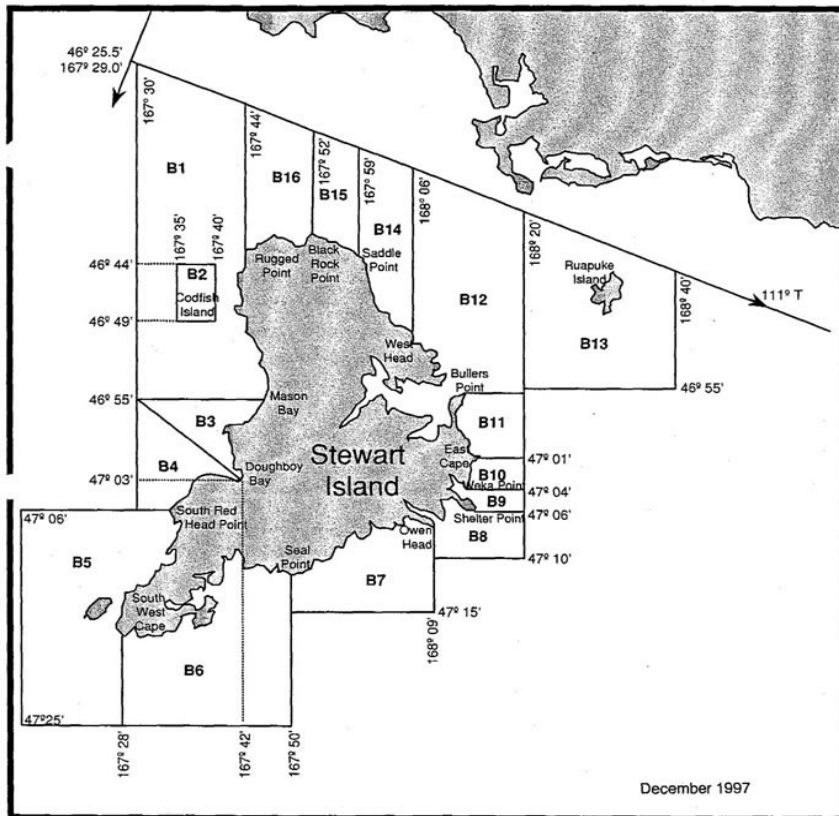


Table I: Client statistics, 01 January 1997 - 01 July 2003. *(discussed on page 10)*

Number of clients (all clients): 48	Number of clients (over 10 trips): 33
Number of trips: 2,648	Number of trips: 2,595
Average number of trips per client: 55	Average number of trips per client: 79
Average catch (kg) per client: 13,077.45	Average catch (kg) per client: 18,546.07
Average number of divers per client: 102	Average number of divers per client: 145
Average duration (h) per client: 315.48	Average duration (h) per client: 446.21

Figure 4: Total quantity harvested by statistical area. *(discussed on page 10)*

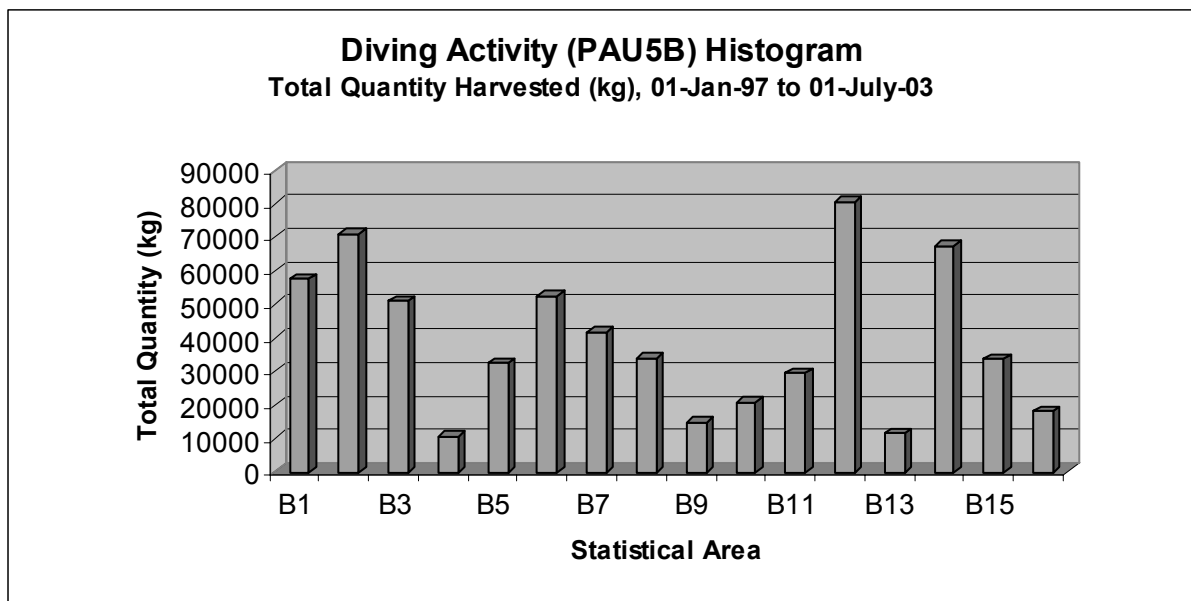


Figure 8: Daily participation and site choice decisions.

(discussed on page 12)

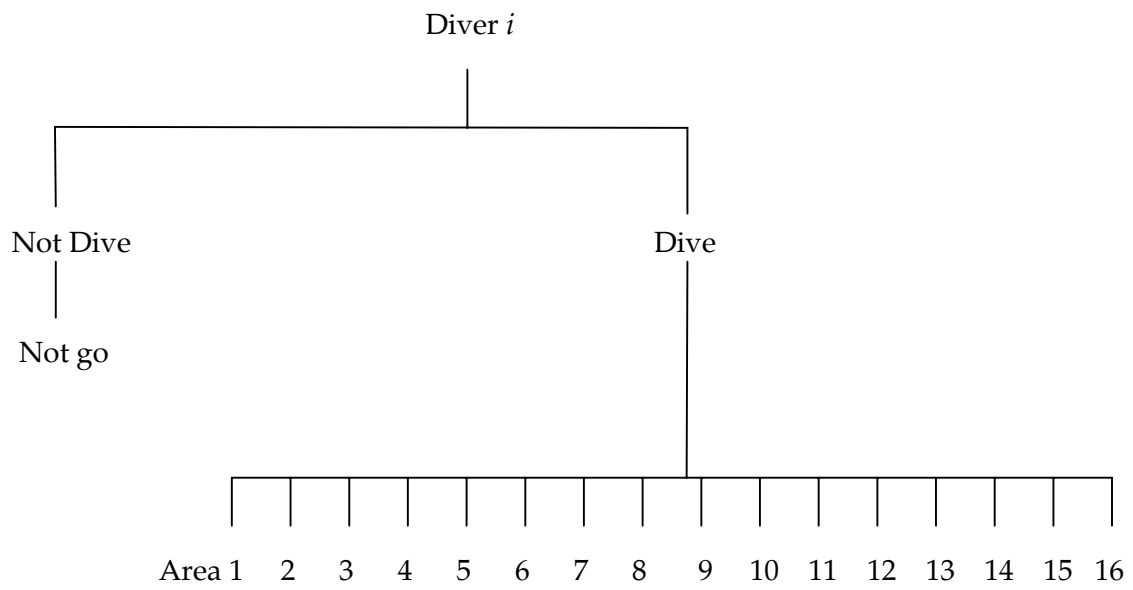


Table II: Nested Logit Model estimation results.

(discussed on page 15)

<i>Limb</i>	<i>(prop.)</i>	<i>Branch</i>	<i>(prop.)</i>	<i>Choice</i>	<i>(prop.)</i>
PAUA	1.0000	DIVE	.74830	AREA1	.04856
				AREA2	.06840
				AREA3	.03346
				AREA4	.00948
				AREA5	.02724
				AREA6	.05271
				AREA7	.04797
				AREA8	.05123
				AREA9	.02458
				AREA10	.03435
				AREA11	.04619
				AREA12	.12822
				AREA13	.01451
				AREA14	.09061
				AREA15	.04708
				AREA16	.02369

Maximum Likelihood Estimates

Dependent variable	STATISTICAL AREA	
Number of observations	3,377 (11 observations skipped)	
Iterations completed	17	
Log likelihood function L_U	-8369.574	
Restricted log likelihood L_R	-9347.090	
Chi squared	1955.031	
Degrees of freedom	10	
Pr[chi-sqrd > value] =	.0000	
LRI = $1-L_U/L_R$	R-sqrd	RsqAdj
No coefficients	.10458	.10441

<i>Variable</i>	<i>Coefficient</i>	<i>Standard Error</i>	<i>b/St.Er.</i>	<i>P[Z > z]</i>
<i>Attributes in the location-specific utility functions</i>				
CPUE	.0104	.0005	19.921	.0000
DISTANCE	-.1122	.0080	-14.005	.0000
<i>Attributes of branch choice equations</i>				
Constant	-4.3695	5.2331	-.835	.4037
RAIN	-.0126	.0082	-1.538	.1241
WIND	-.2299	.0437	-5.258	.0000
MSLP	.0051	.0051	.992	.3211
GUST	-.0650	.0191	-3.409	.0007
MEAN	.0403	.0136	2.955	.0031
DSEASON	-.8941	.1090	-8.203	.0000
<i>IV parameters</i>				
DIVE	.8991	.3640	2.470	.0135
NOTDIVE	1.0000	(Fixed Parameter).....	

Table III: Descriptive statistics for the variables CPUE and DISTANCE.

(discussed on page 17)

	All observations		Area-specific no. of observations	
	CPUE Mean (S.D.)	DISTANCE Mean (S.D.)	CPUE Mean (S.D.)	DISTANCE Mean (S.D.)
Area 1	46.69 (34.44)	6.20 (0.03)	61.70 (25.62)	6.20 (0.12)
Area 2	47.27 (30.80)	7.09 (0.24)	59.12 (21.35)	7.00 (0.90)
Area 3	39.59 (47.12)	9.10 (0.00)	70.01 (39.11)	9.10 (0.00)
Area 4	19.14 (33.10)	9.90 (0.16)	48.37 (40.09)	9.62 (1.61)
Area 5	35.28 (53.60)	8.60 (0.18)	63.25 (58.62)	8.44 (1.07)
Area 6	45.50 (40.55)	7.30 (0.07)	56.66 (39.04)	7.28 (0.32)
Area 7	35.73 (37.82)	4.20 (0.08)	44.06 (35.72)	4.14 (0.37)
Area 8	29.31 (21.02)	2.50 (0.08)	35.77 (15.76)	2.42 (0.37)
Area 9	23.02 (22.31)	1.10 (0.06)	32.36 (18.25)	1.91 (0.36)
Area 10	24.88 (17.48)	1.60 (0.02)	32.71 (10.68)	1.58 (0.13)
Area 11	23.90 (13.40)	1.00 (0.02)	29.58 (10.71)	1.01 (0.08)
Area 12	32.54 (11.86)	1.50 (0.01)	34.73 (8.64)	1.50 (0.24)
Area 13	21.59 (35.18)	2.60 (0.01)	50.90 (33.33)	2.59 (0.86)
Area 14	34.15 (17.53)	3.20 (0.05)	36.96 (17.14)	3.18 (0.17)
Area 15	32.10 (21.46)	4.00 (0.03)	38.24 (16.74)	3.99 (0.12)
Area 16	26.62 (25.41)	4.80 (0.06)	43.17 (17.41)	4.76 (0.36)

Table IV: Elasticities.

(discussed on page 18)

	CPUE			DISTANCE		
	Own elasticity	Cross elasticity (M-1)	Cross elasticity NOTGO	Own elasticity	Cross elasticity (M-1)	Cross elasticity NOTGO
Area 1	0.265	-0.012	-0.011	-0.514	0.024	0.021
Area 2	0.468	-0.025	-0.022	-0.763	0.033	0.029
Area 3	0.387	-0.026	-0.023	-0.987	0.035	0.030
Area 4	0.192	-0.008	-0.007	-1.085	0.026	0.022
Area 5	0.331	-0.037	-0.032	-0.929	0.036	0.031
Area 6	0.443	-0.032	-0.028	-0.785	0.035	0.030
Area 7	0.340	-0.032	-0.028	-0.446	0.025	0.022
Area 8	0.286	-0.020	-0.017	-0.264	0.016	0.014
Area 9	0.223	-0.017	-0.014	-0.212	0.013	0.011
Area 10	0.242	-0.017	-0.015	-0.169	0.011	0.009
Area 11	0.233	-0.017	-0.015	-0.105	0.007	0.006
Area 12	0.317	-0.023	-0.020	-0.158	0.011	0.009
Area 13	0.203	-0.022	-0.019	-0.276	0.016	0.014
Area 14	0.335	-0.021	-0.018	-0.339	0.019	0.017
Area 15	0.316	-0.019	-0.016	-0.427	0.022	0.019
Area 16	0.262	-0.015	-0.013	-0.515	0.023	0.020

Table V: Simulation results for a network of no-take areas. *(discussed on page 20)*

	Baseline prediction		Scenario: closure AREA 4, 5, 13, 16			
	Number	% Share	Number	% Share	ChgNumber	ChgShare
NOTGO	719	21.30	828	24.53	109	3.24%
AREA1	155	4.58	186	5.50	31	0.93%
AREA2	144	4.26	173	5.13	29	0.87%
AREA3	117	3.45	141	4.18	24	0.73%
AREA4	79	2.34	0	0.00	-79	-2.34%
AREA5	127	3.76	0	0.00	-127	-3.76%
AREA6	145	4.30	174	5.16	29	0.87%
AREA7	181	5.37	217	6.43	36	1.06%
AREA8	193	5.70	232	6.87	39	1.17%
AREA9	192	5.70	232	6.86	40	1.16%
AREA10	203	6.00	244	7.23	41	1.22%
AREA11	214	6.33	257	7.62	43	1.30%
AREA12	220	6.52	265	7.86	45	1.34%
AREA13	187	5.52	0	0.00	-187	-5.52%
AREA14	186	5.52	224	6.64	38	1.12%
AREA15	167	4.96	202	5.98	35	1.02%
AREA16	148	4.39	0	0.00	-148	-4.39%
Total	3377	100.00	3375	100.00	-2	0.00%

	Baseline prediction		Scenario: closure AREA 4, 5, 13, 1			
	Number	% Share	Number	% Share	ChgNumber	ChgShare
NOTGO	719	21.30	830	24.58	111	3.29%
AREA1	155	4.58	0	0.00	-155	-4.58%
AREA2	144	4.26	174	5.15	30	0.89%
AREA3	117	3.45	141	4.19	24	0.73%
AREA4	79	2.34	0	0.00	-79	-2.34%
AREA5	127	3.76	0	0.00	-127	-3.76%
AREA6	145	4.30	175	5.17	30	0.88%
AREA7	181	5.37	218	6.45	37	1.08%
AREA8	193	5.70	233	6.90	40	1.20%
AREA9	192	5.70	232	6.87	40	1.17%
AREA10	203	6.00	244	7.24	41	1.24%
AREA11	214	6.33	258	7.64	44	1.31%
AREA12	220	6.52	266	7.87	46	1.35%
AREA13	187	5.52	0	0.00	-187	-5.52%
AREA14	186	5.52	225	6.65	39	1.13%
AREA15	167	4.96	202	5.99	35	1.03%
AREA16	148	4.39	179	5.29	31	0.90%
Total	3377	100.00	3377	100.00	0	0.00%

Table V: Simulation results for a network of no-take areas. (continued)

(discussed on page 20)

	Baseline prediction		Scenario: closure AREA 4, 5, 9, 16			
	Number	% Share	Number	% Share	ChgNumber	ChgShare
NOTGO	719	21.30	831	24.62	112	3.32%
AREA1	155	4.58	186	5.52	31	0.94%
AREA2	144	4.26	174	5.15	30	0.89%
AREA3	117	3.45	141	4.18	24	0.73%
AREA4	79	2.34	0	0.00	-79	-2.34%
AREA5	127	3.76	0	0.00	-127	-3.76%
AREA6	145	4.30	174	5.15	29	0.86%
AREA7	181	5.37	218	6.45	37	1.07%
AREA8	193	5.70	233	6.89	40	1.19%
AREA9	192	5.70	0	0.00	-192	-5.70%
AREA10	203	6.00	244	7.24	41	1.24%
AREA11	214	6.33	258	7.64	44	1.32%
AREA12	220	6.52	266	7.87	46	1.35%
AREA13	187	5.52	224	6.64	37	1.11%
AREA14	186	5.52	224	6.65	38	1.13%
AREA15	167	4.96	203	6.00	36	1.04%
AREA16	148	4.39	0	0.00	-148	-4.39%
Total	3377	100.00	3376	100.00	-1	0.00%

	Baseline prediction		Scenario: closure AREA 4, 5, 9, 1			
	Number	% Share	Number	% Share	ChgNumber	ChgShare
NOTGO	719	21.30	833	24.67	114	3.37%
AREA1	155	4.58	0	0.00	-155	-4.58%
AREA2	144	4.26	175	5.17	31	0.91%
AREA3	117	3.45	141	4.19	24	0.74%
AREA4	79	2.34	0	0.00	-79	-2.34%
AREA5	127	3.76	0	0.00	-127	-3.76%
AREA6	145	4.30	174	5.17	29	0.87%
AREA7	181	5.37	218	6.47	37	1.09%
AREA8	193	5.70	234	6.92	41	1.22%
AREA9	192	5.70	0	0.00	-192	-5.70%
AREA10	203	6.00	245	7.25	42	1.25%
AREA11	214	6.33	259	7.66	45	1.33%
AREA12	220	6.52	266	7.88	46	1.36%
AREA13	187	5.52	225	6.65	38	1.13%
AREA14	186	5.52	225	6.66	39	1.14%
AREA15	167	4.96	203	6.01	36	1.05%
AREA16	148	4.39	179	5.31	31	0.92%
Total	3377	100.00	3377	100.00	0	0.00%

Appendix

Figure 5: Total number of hours dived by statistical area.

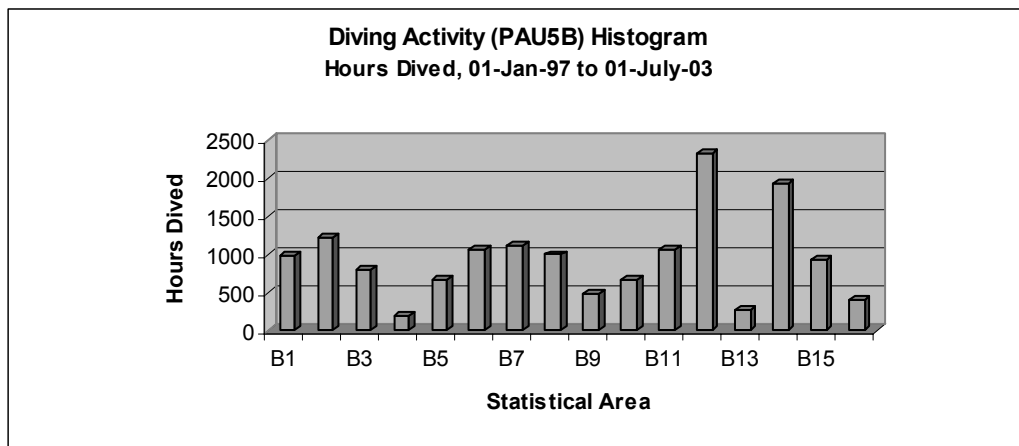


Figure 6: Total number of divers by statistical area.

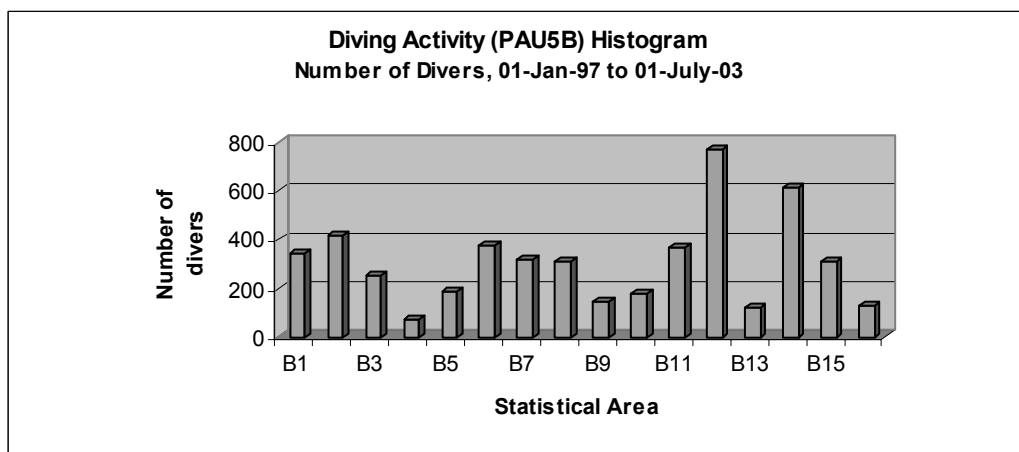


Figure 7: Total number of trips taken by statistical area.

