

Appendix E. Chinese White Dolphin Monitoring Results

Figure 1: Sightings Distribution of Chinese White Dolphins in 2022

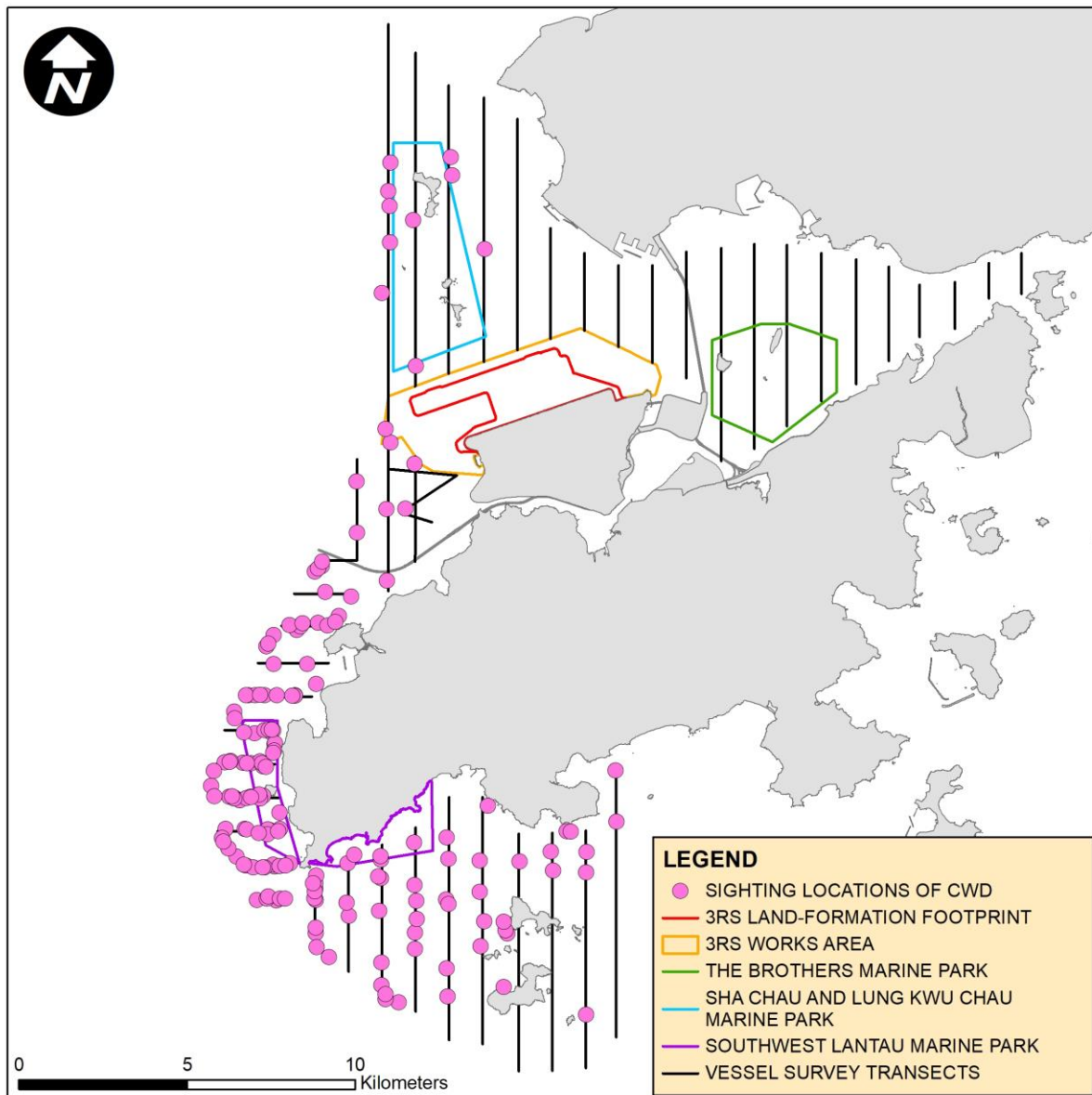
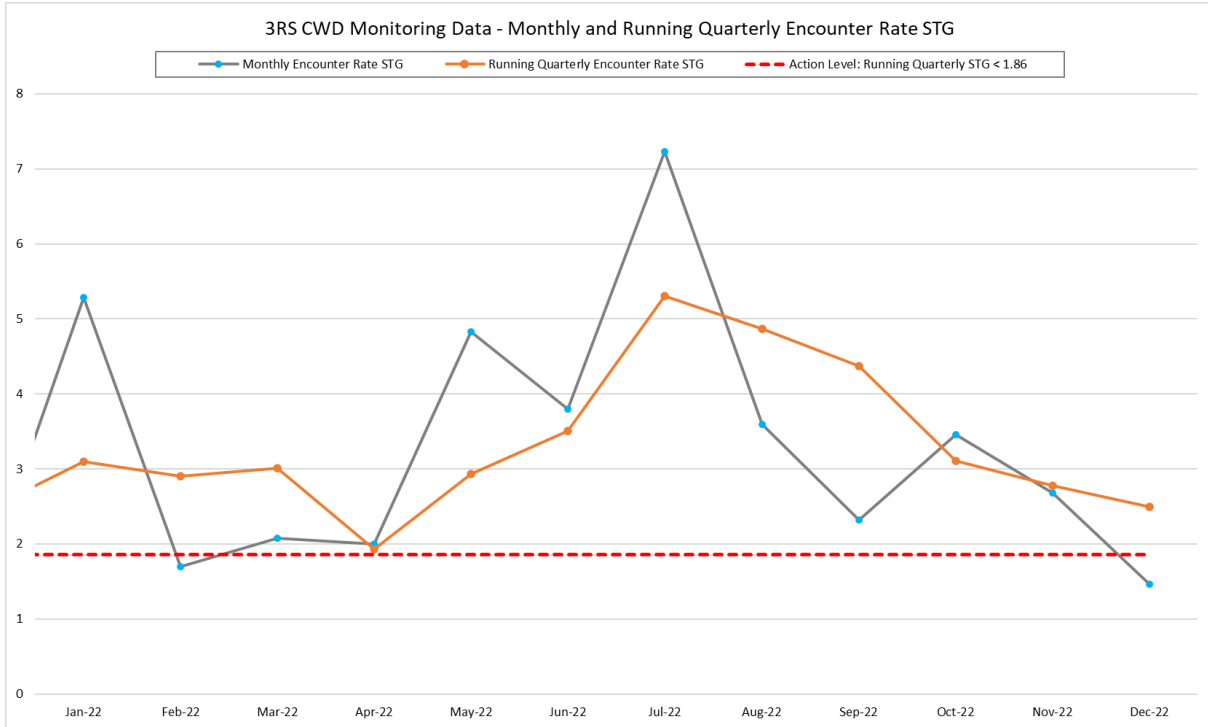
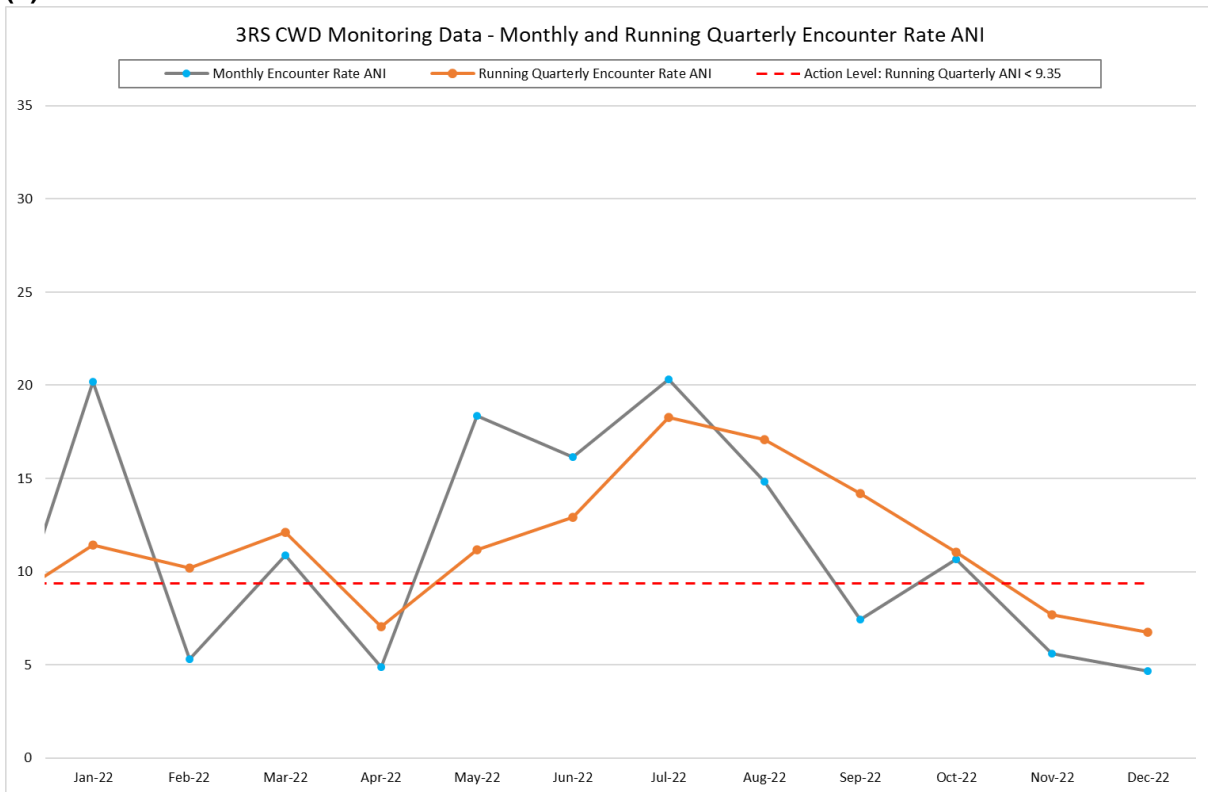


Figure 2: Graphical Presentation of Monthly and Running Quarterly Encounter Rates in the Reporting Period (January to December 2022)

(a) Encounter Rate STG



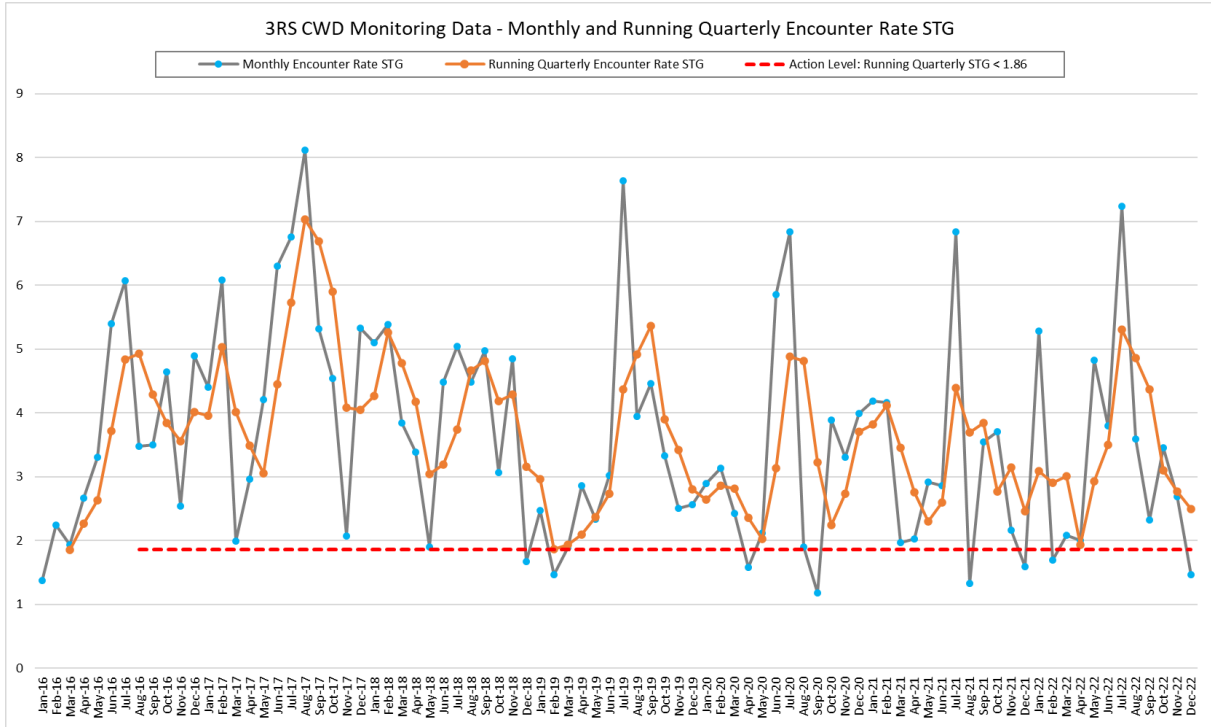
(b) Encounter Rate ANI



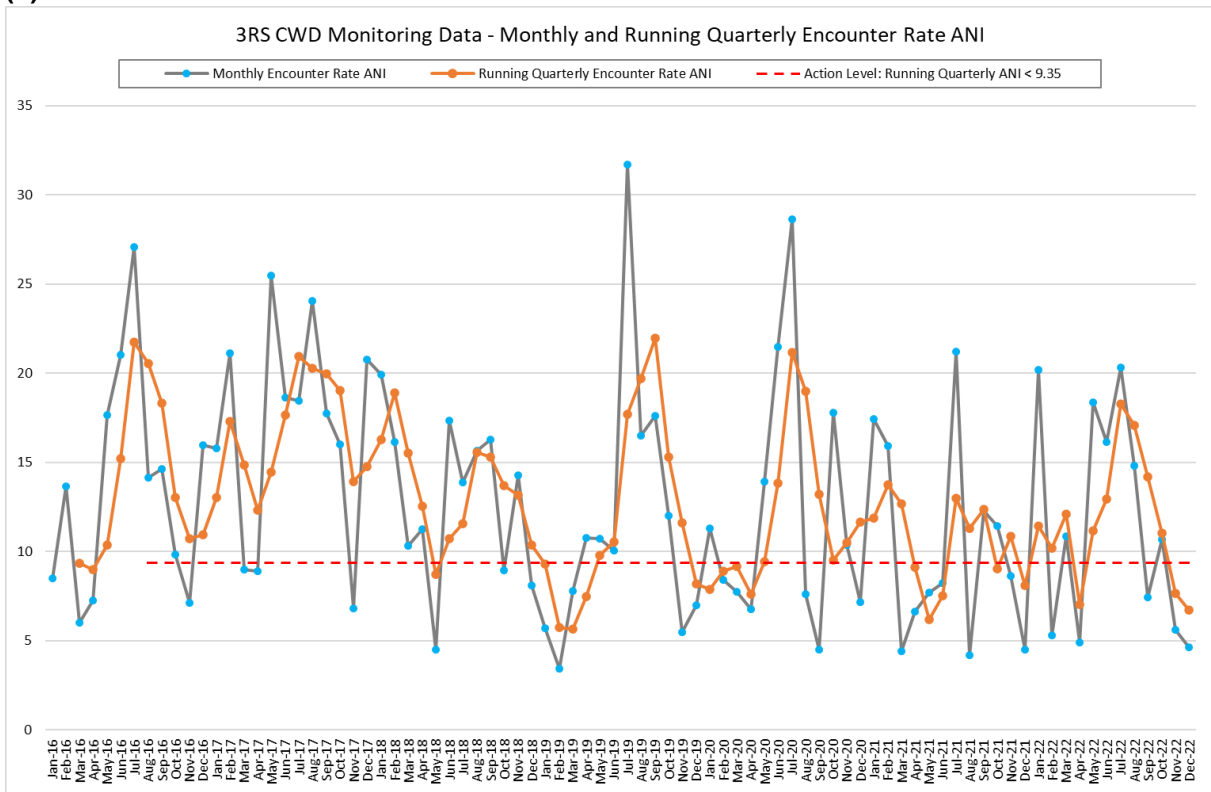
Notes: Limit Level = Two consecutive running quarterly STG < 1.86 & ANI < 9.35.
 Action Level and/or Limit Level will be triggered if both STG and ANI fall below the criteria.

Figure 3: Graphical Presentation of Monthly and Running Quarterly Encounter Rates from January 2016 to December 2022

(a) Encounter Rate STG

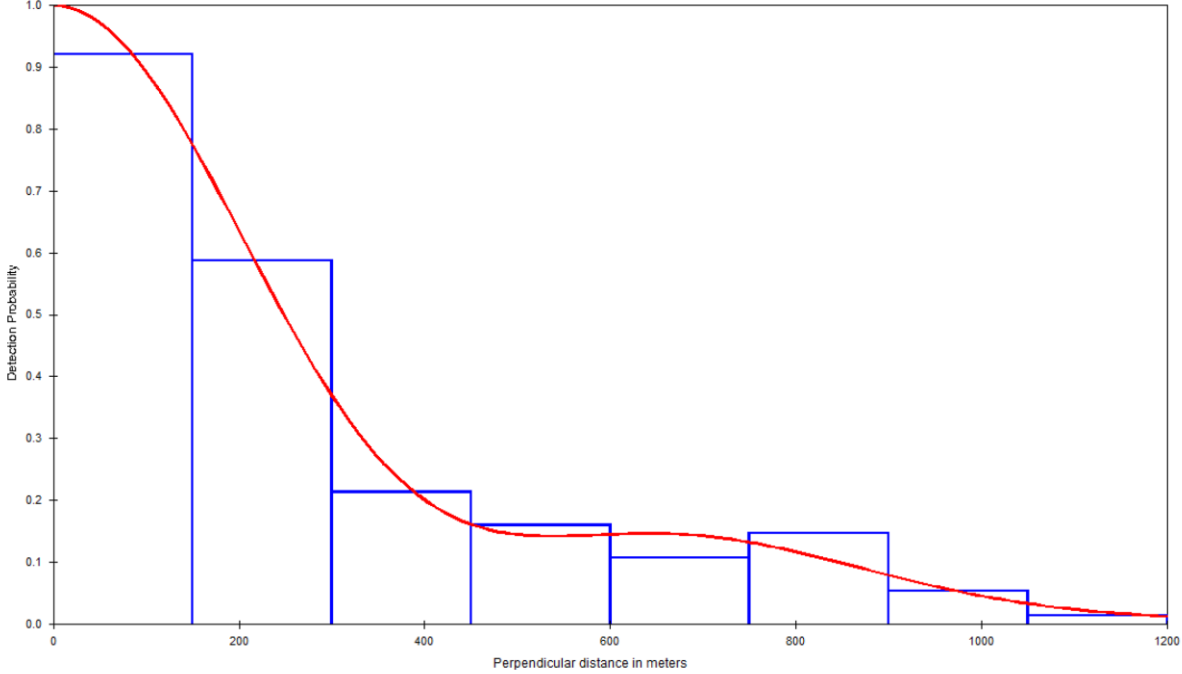


(b) Encounter Rate ANI



Notes: Limit Level = Two consecutive running quarterly STG < 1.86 & ANI < 9.35.
 Action Level and/or Limit Level will be triggered if both STG and ANI fall below the criteria.

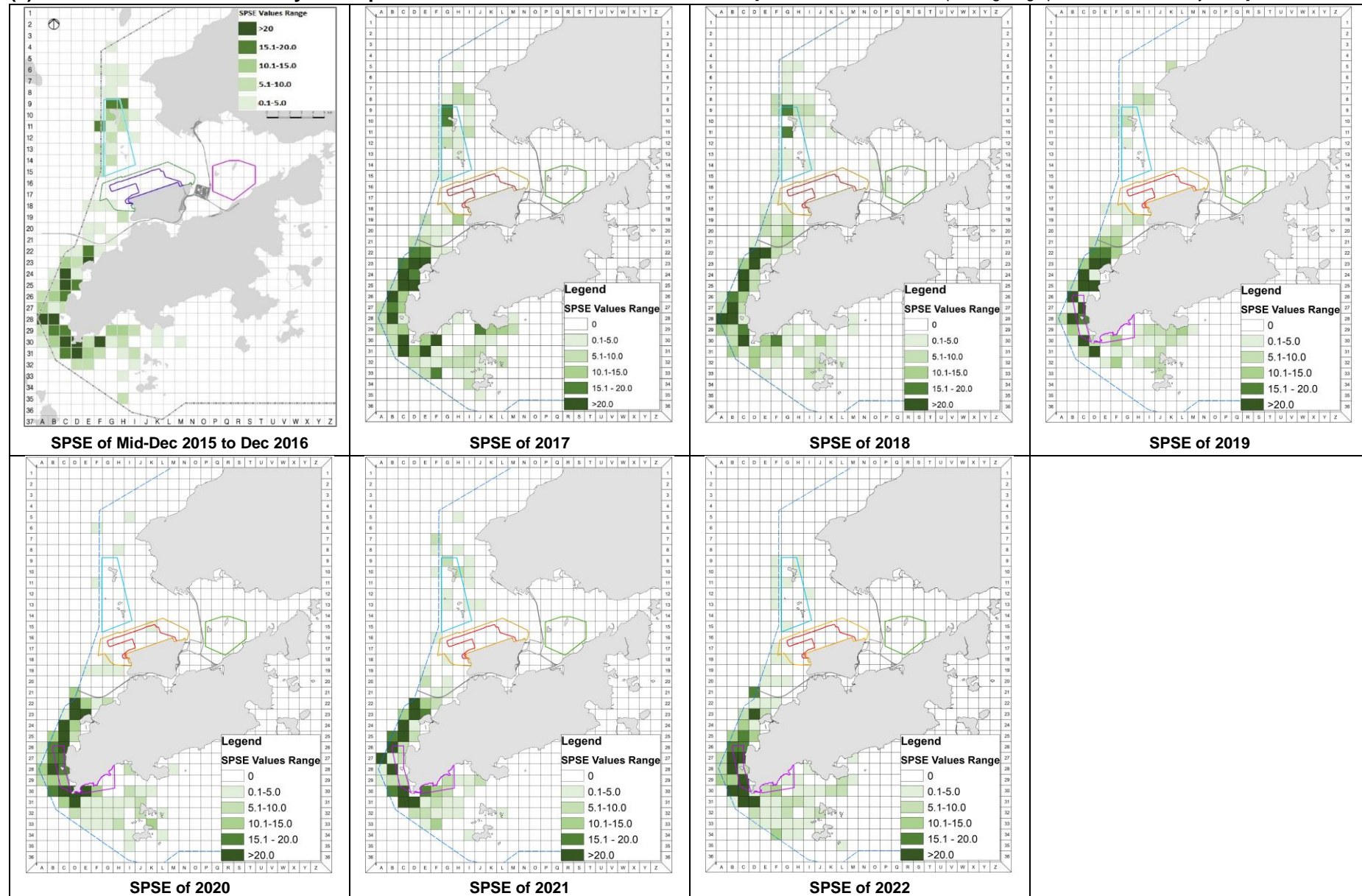
Figure 4: Fitted Detection Function of the 2022 CWD Sightings, Pooled from All Western Hong Kong Survey Areas (truncation distance = 1,200 m)



Note: Detection function used a Half-Normal model with a cosine adjustment.

Figure 5: Quantitative Grid Analysis for CWDs

(a) SPSE with Corrected Survey Effort per km² of Year 2022 and Previous Years [SPSE = no. of on-effort dolphin sightings per 100 units of survey effort]



(b) DPSE with Corrected Survey Effort per km² of Year 2022 and Previous Years [DPSE = no. of dolphins per 100 units of survey effort]

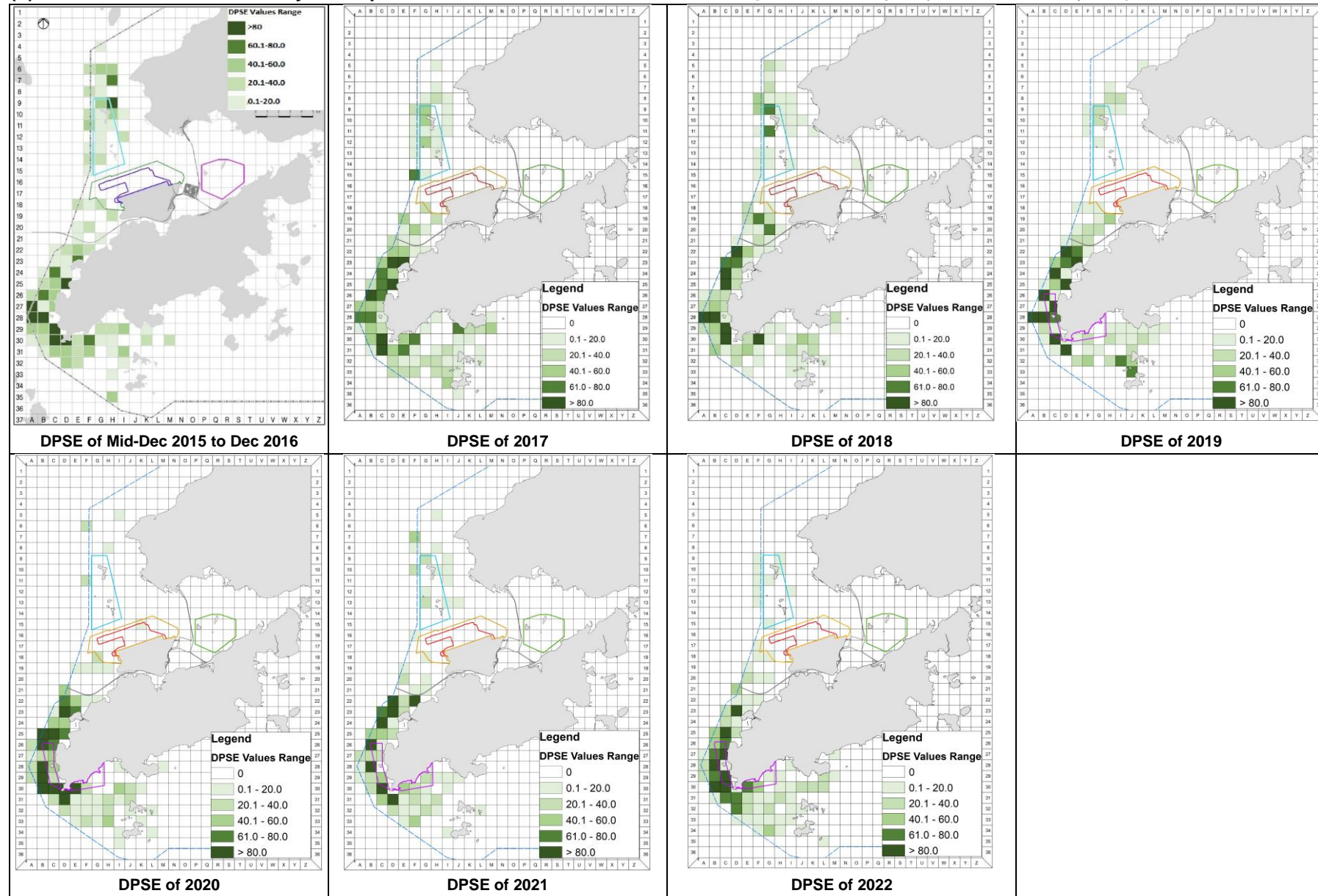


Figure 6: Cumulative SPSE and DPSE of CWDs with Corrected Survey Effort per km² from Dec 2015 to Dec 2022

[SPSE = no. of on-effort dolphin sightings per 100 units of survey effort, DPSE = no. of dolphins per 100 units of survey effort]

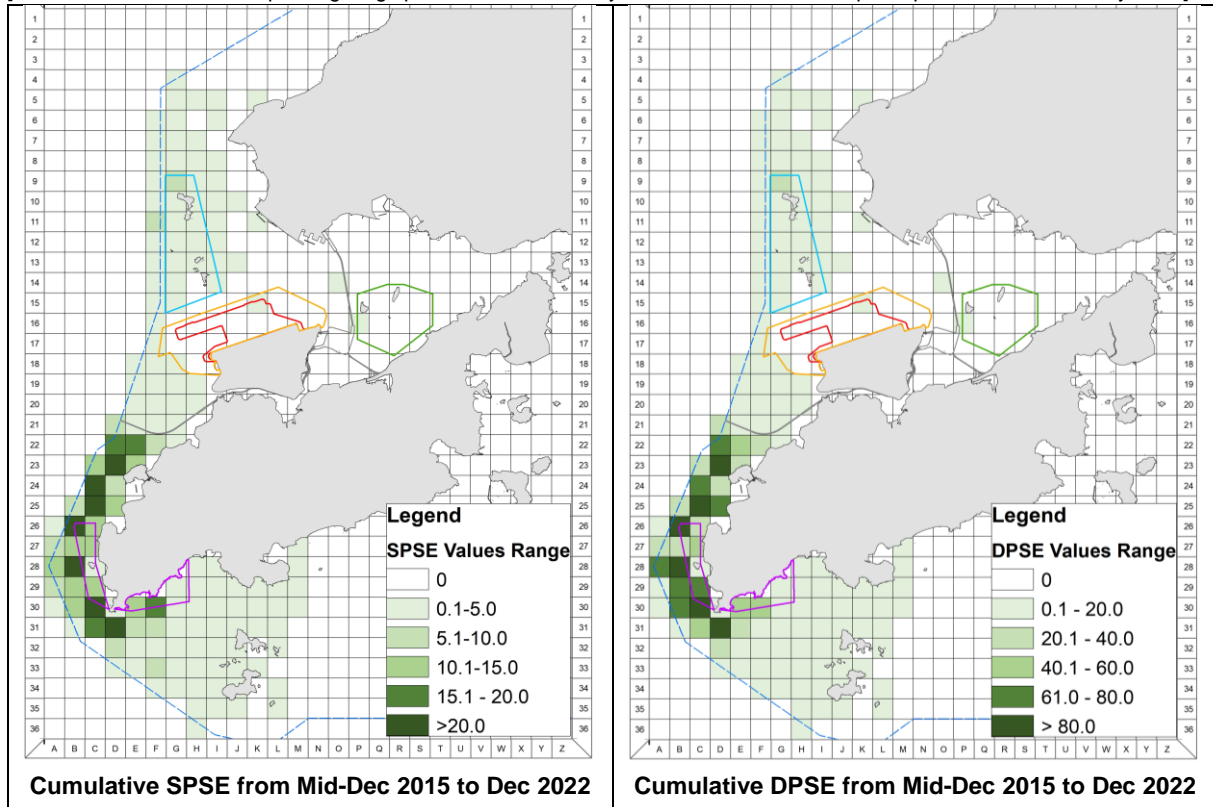
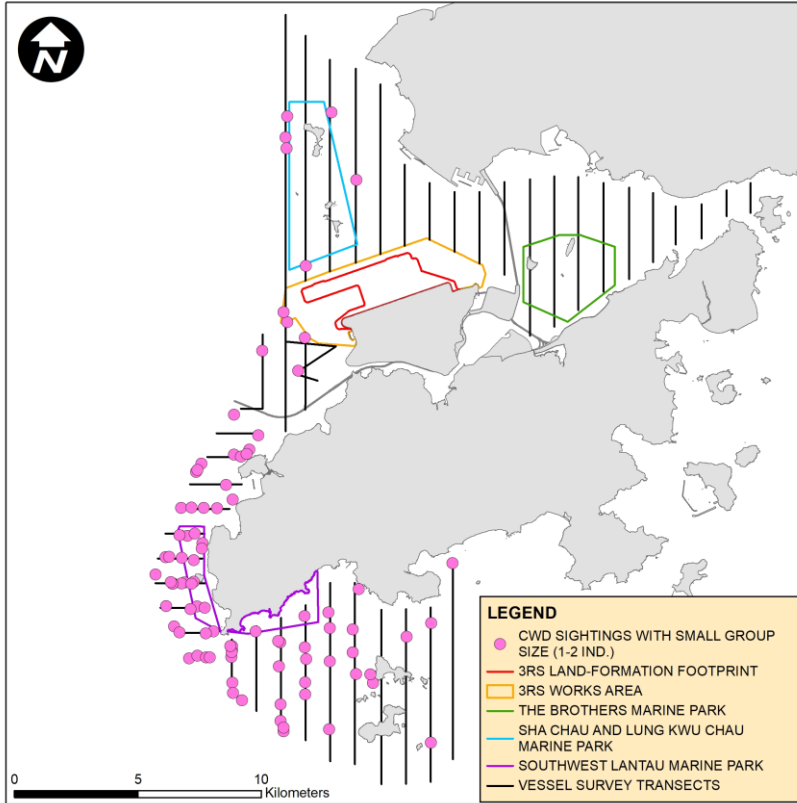


Figure 7: Sightings Distribution of Chinese White Dolphins with Different Group Sizes in 2022
(a) Small Group Size (1 to 2 dolphins)



(b) Medium Group Size (3 to 9 dolphins) and Large Group Size (10 or more dolphins)

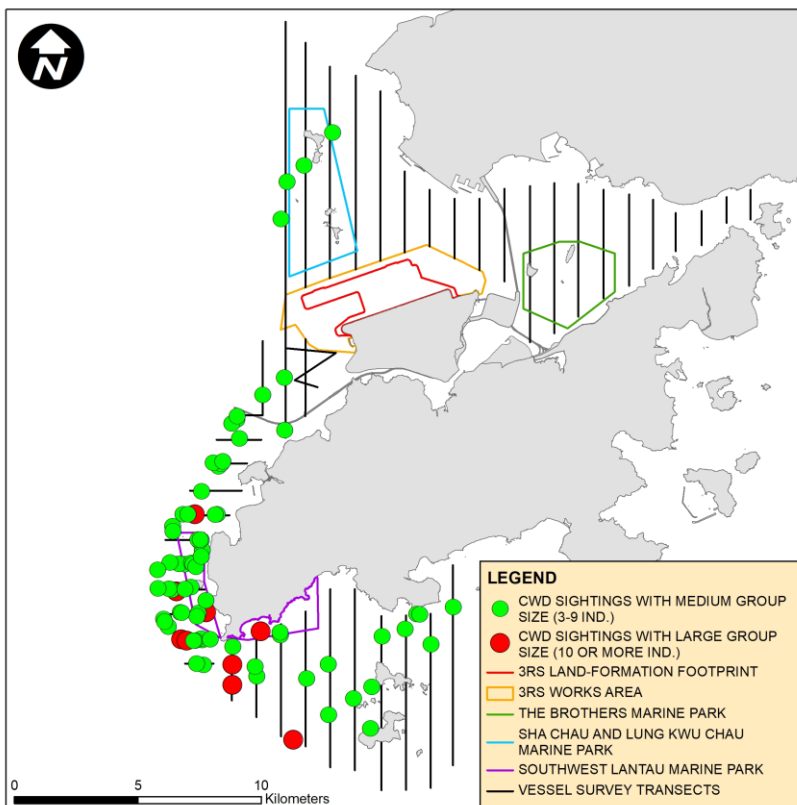


Figure 8: Sighting Locations of CWD Groups Engaged in Different Activities in 2022

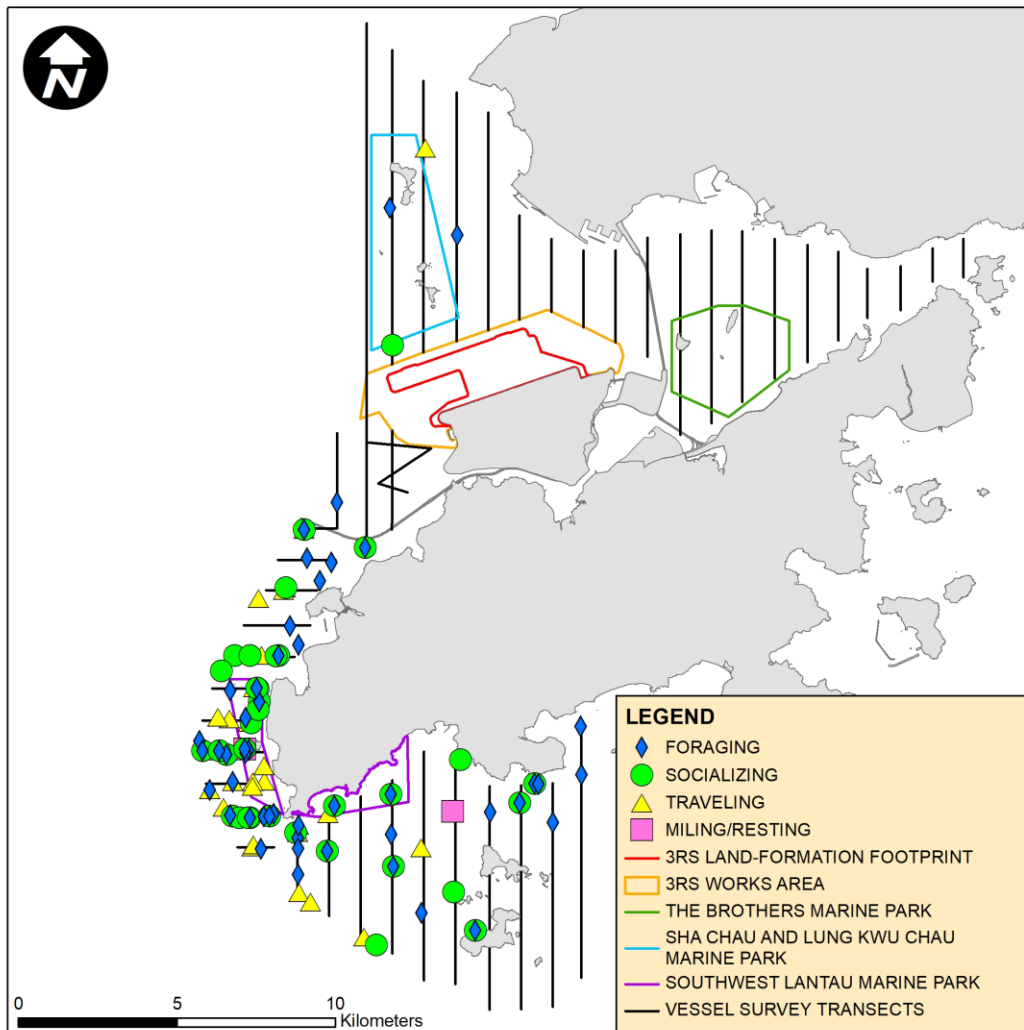


Figure 9: Sighting Locations of CWD Groups in Association with Fishing Boat in 2022

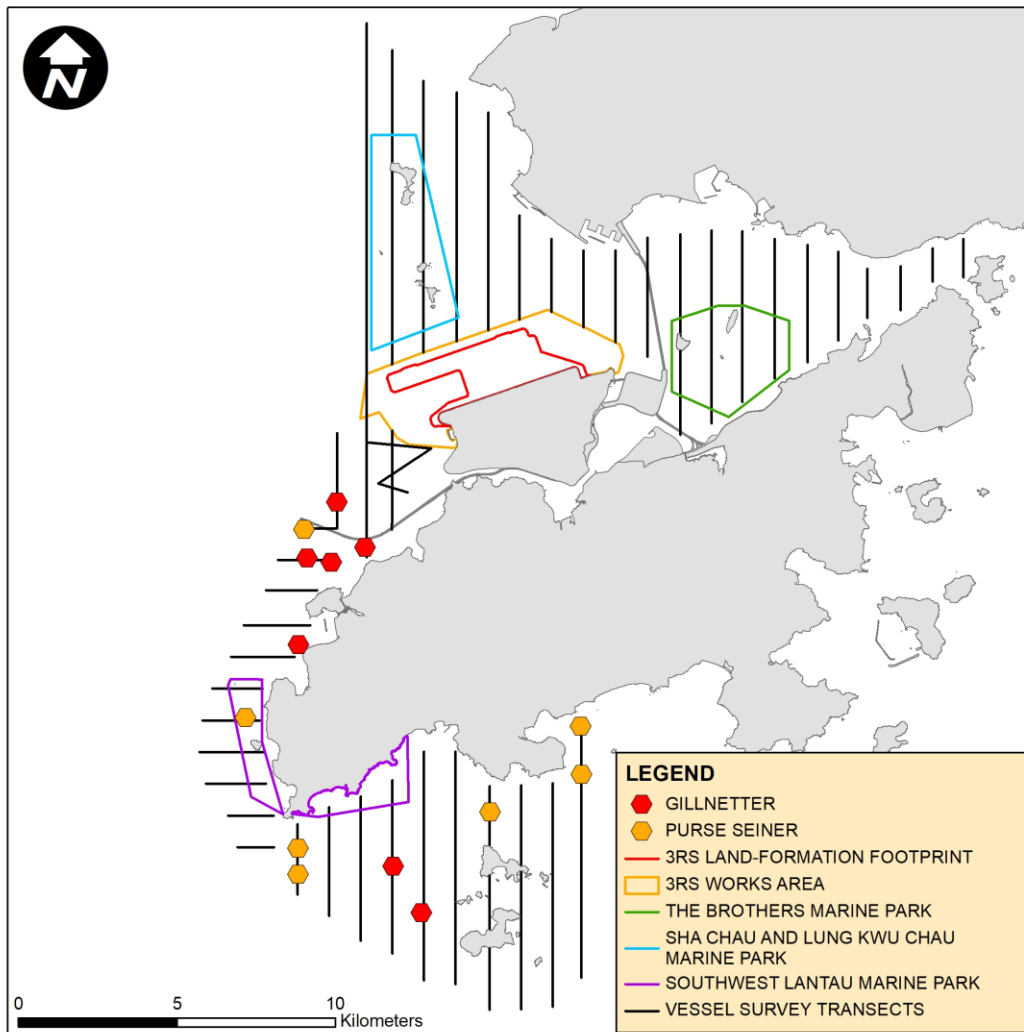


Figure 10: Sighting Locations of Mother-Calf Pairs in 2022

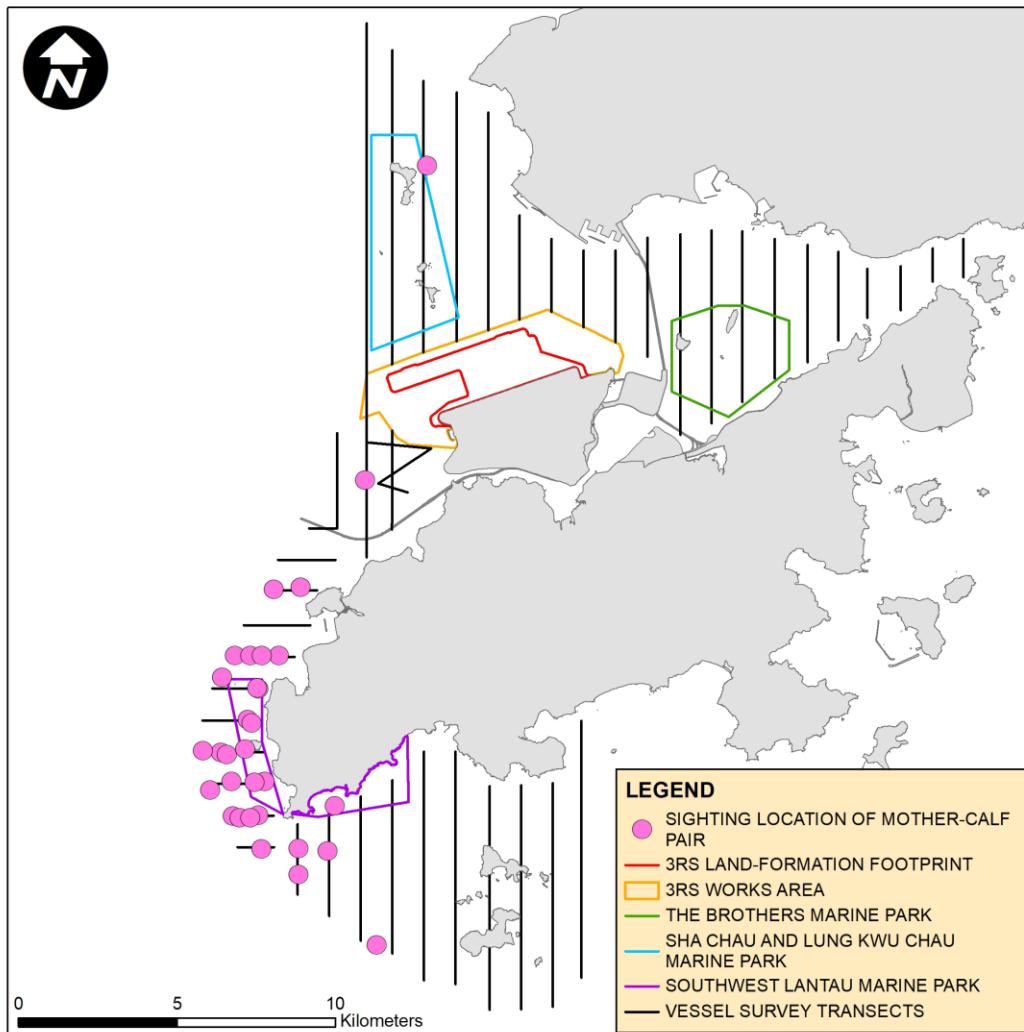
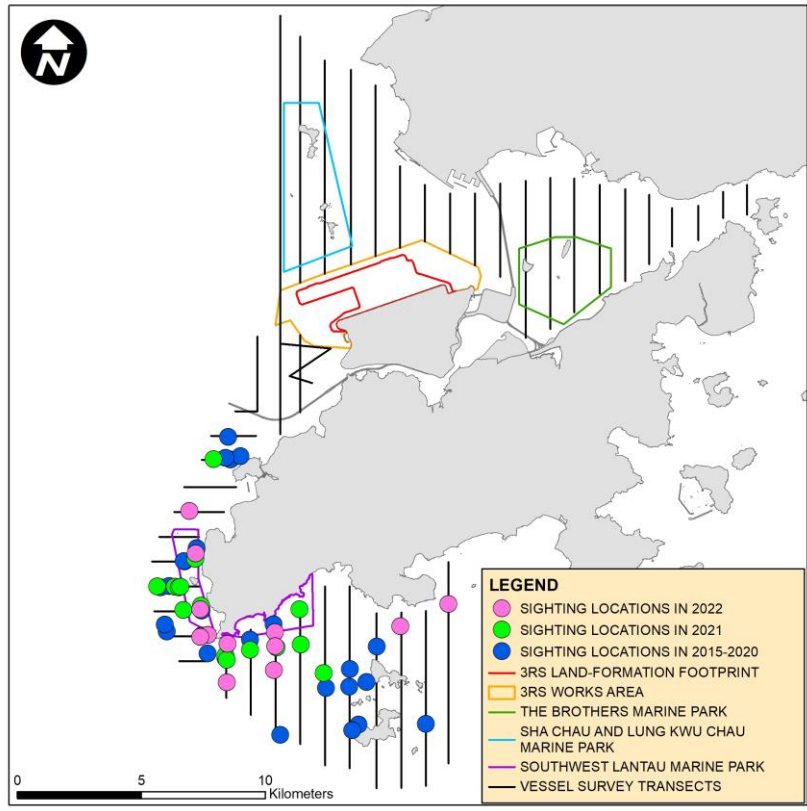
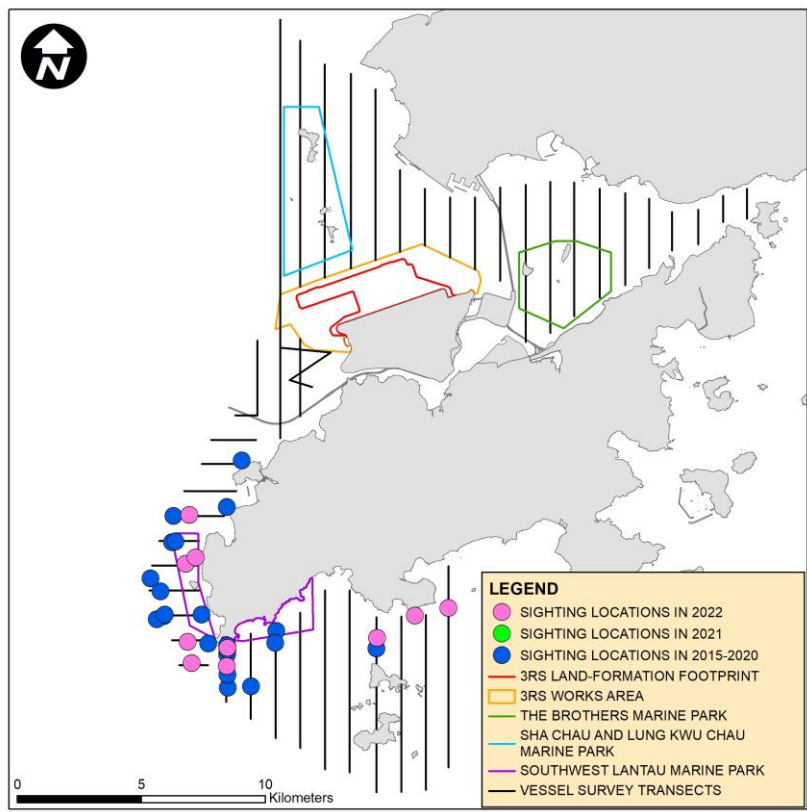


Figure 11 (batch): Photo Identification – Re-sighting Locations

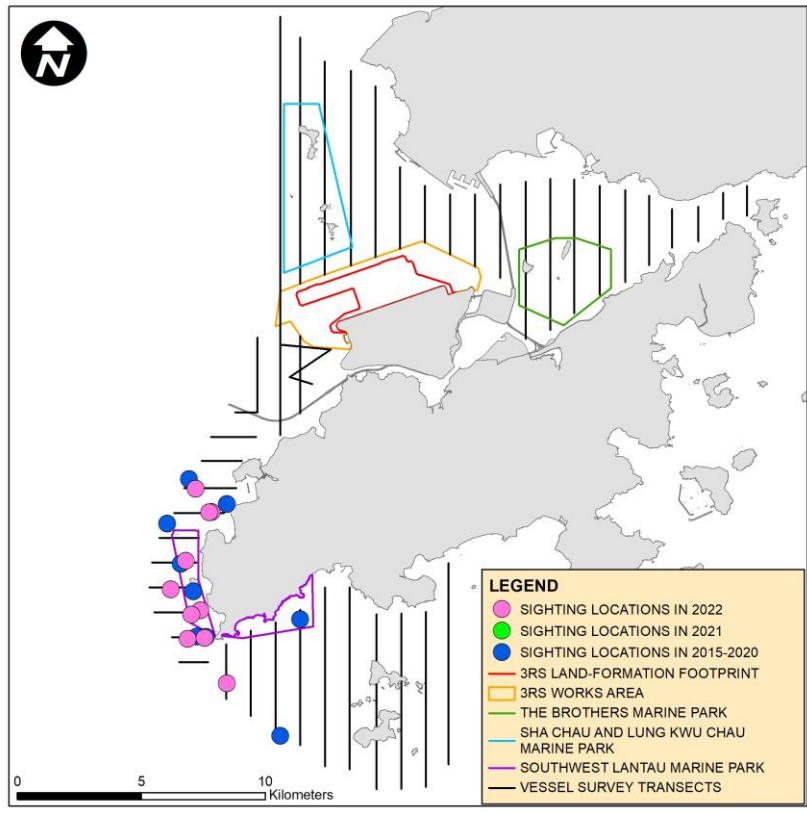
SLMM037 – the most frequently re-sighted animal in 2022 and the 2nd most frequently sighted animal overall



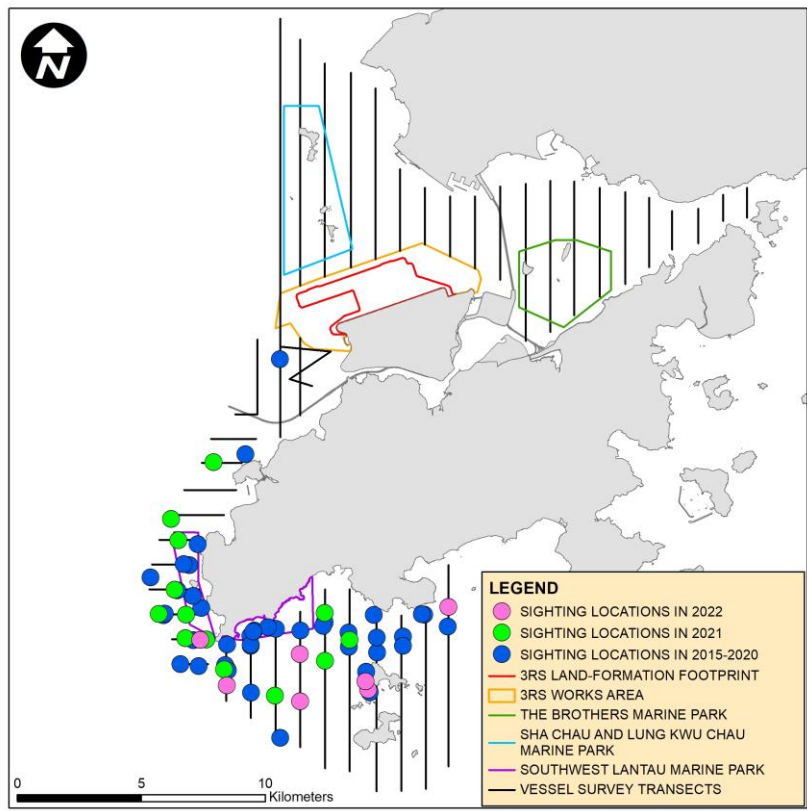
SLMM002 – the 2nd most frequently resighted animal in 2022



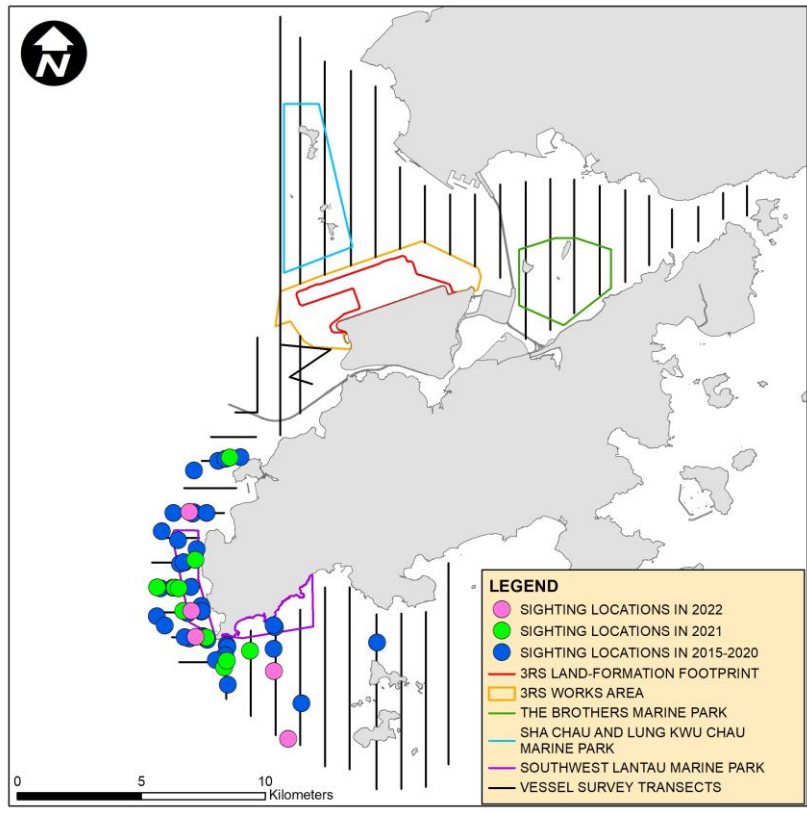
SLMM044 – the 2nd most frequently resighted animal in 2022



SLMM014 – the most frequently sighted animal overall



SLMM003 – the 2nd most frequently sighted animal overall



WLMM001 – the 3rd most frequently sighted animal overall

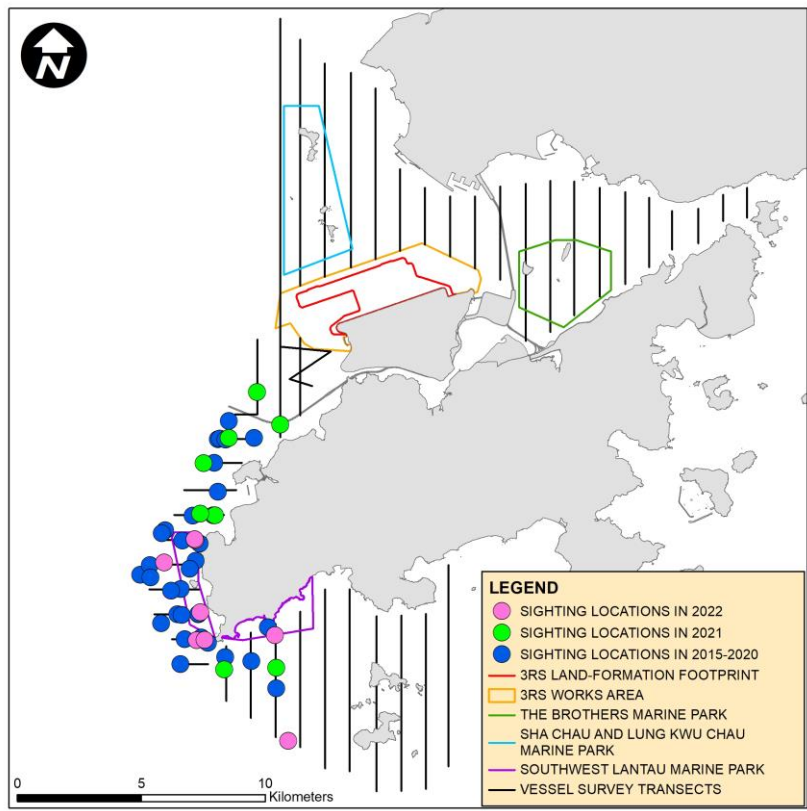


Figure 12: Plots of First Sightings of All CWD Groups (prior to filtering short-track data) Obtained from Land-based Station at Lung Kwu Chau in 2022

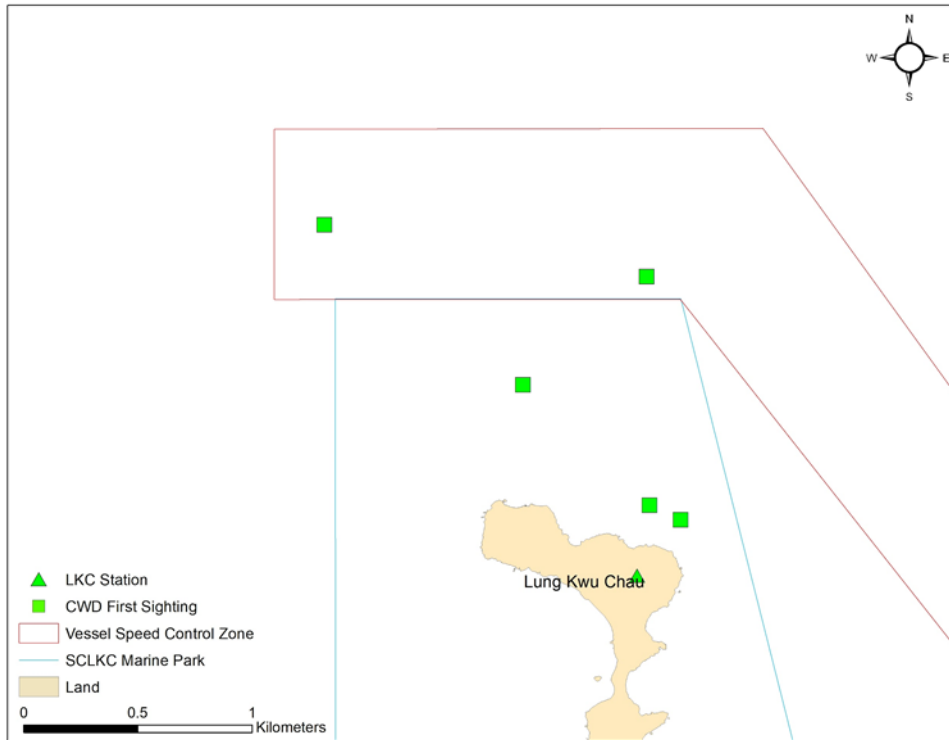


Figure 13: Proportion of CWD Total Track Time, per Total Effort Time, from Lung Kwu Chau (prior to filtering short-track data) Based on Time of Day in 2022

[The x-axis represents the hour block during which theodolite tracking surveys were conducted. The "n" in parentheses represents the number of days that survey effort was carried out during the associated hour block.]

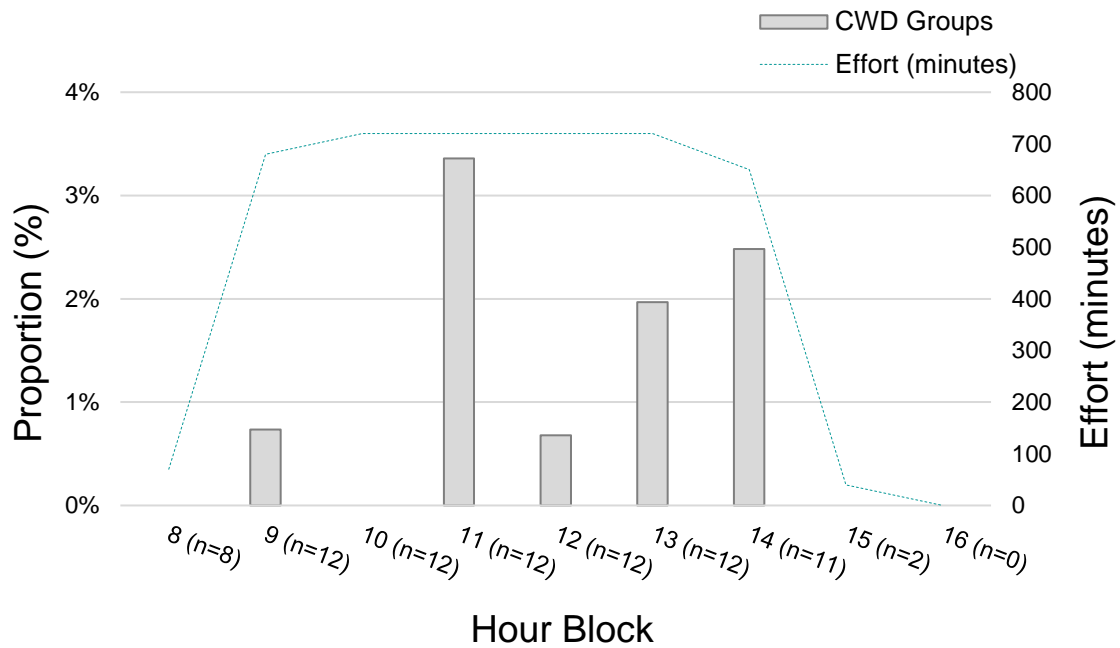


Figure 14: Total Number of CWD Groups Sighted and Tracked from Lung Kwu Chau Based on Month of the Year in 2022

[The grey bars represent the percentage of number of groups tracked per month, while the numbers above the bars indicate the total number of CWD groups tracked per study period (prior to filtering short-track data). The orange line represents the percentage of total time spent tracking dolphins per month. The 'wettest period' is based on total monthly rainfall that varies from year to year.]

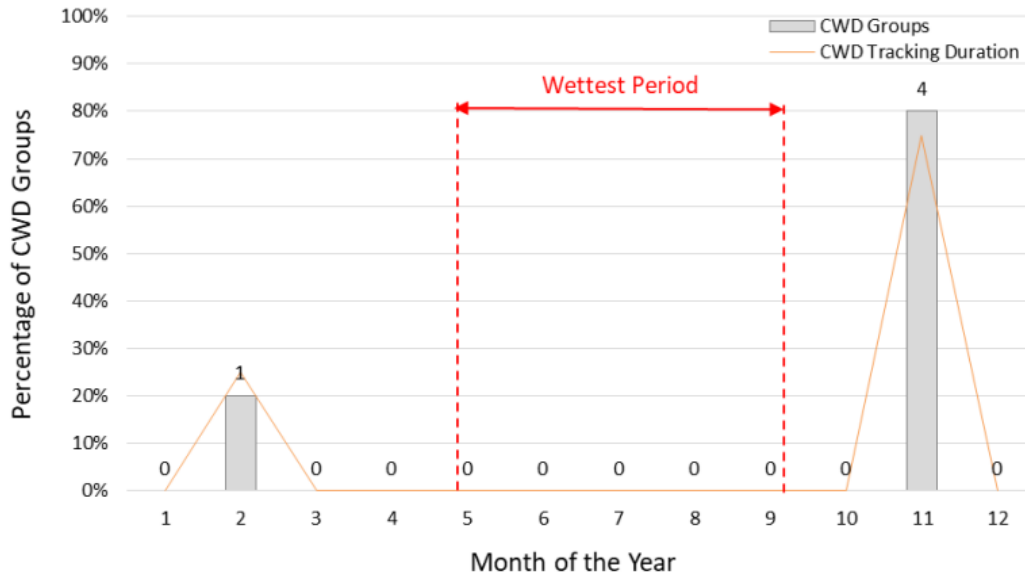


Figure 15: Plots of CWD Positions (prior to filtering short-track data) relative to Group Size tracked within Sha Chau and Lung Kwu Chau Marine Park in 2022

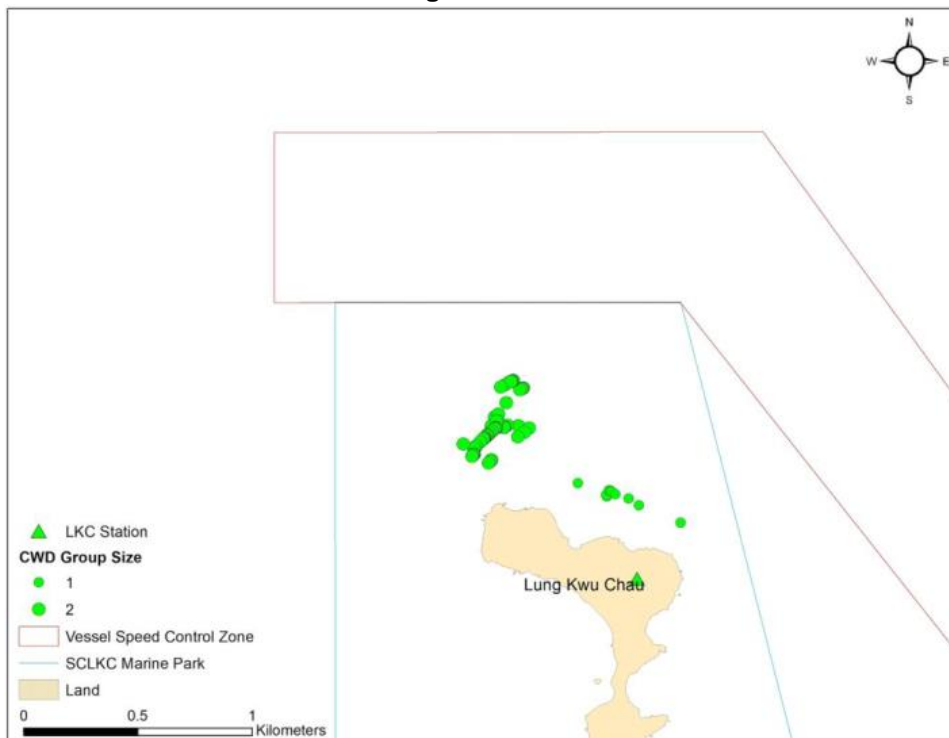


Figure 16: Plots of CWD Positions (prior to filtering short-track data) relative to Group Size crossing the boundary of Sha Chau and Lung Kwu Chau Marine Park in 2022

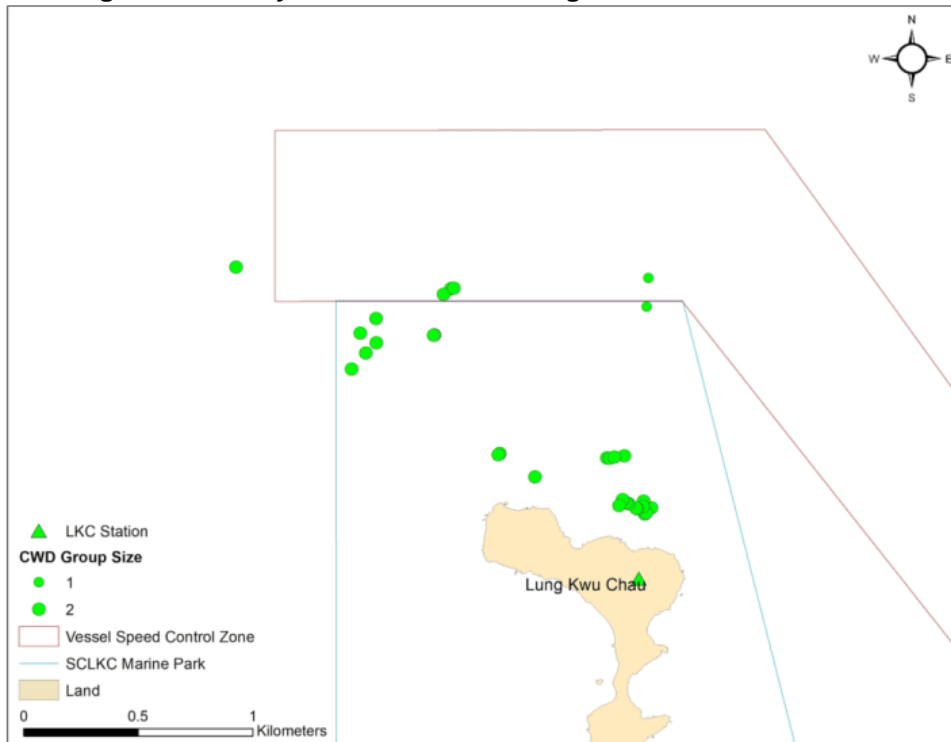


Figure 17: Plots of CWD Positions (prior to filtering short-track data) relative to Group Size tracked outside Sha Chau and Lung Kwu Chau Marine Park in 2022

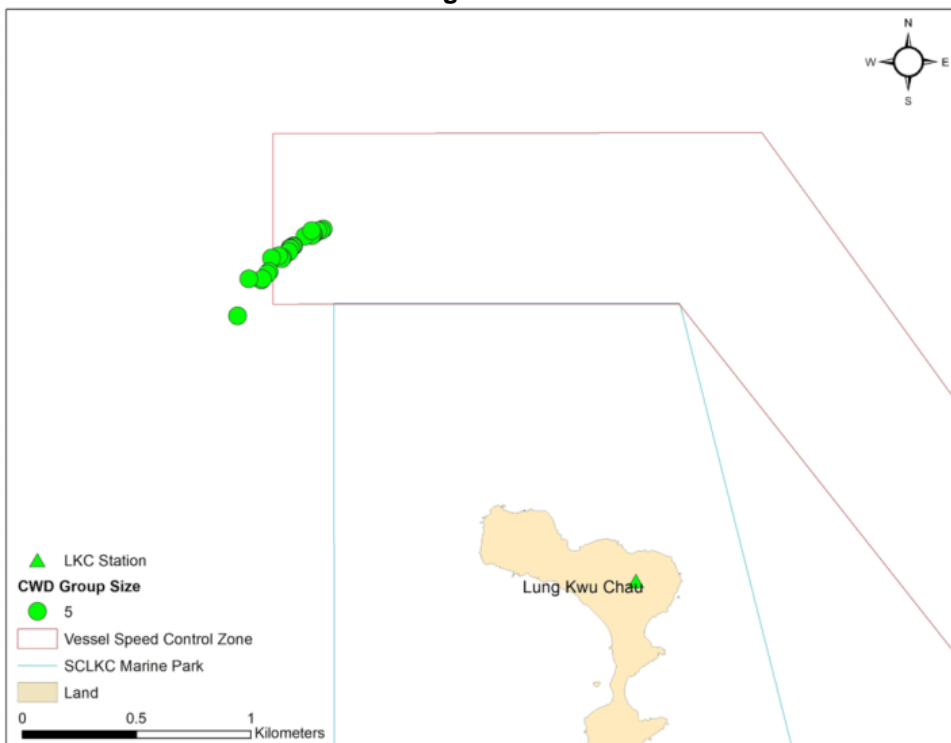


Figure 18: Percentages of CWD Behavioural States (prior to filtering short-track data), excluding Unknown Category, recorded from Lung Kwu Chau in 2022

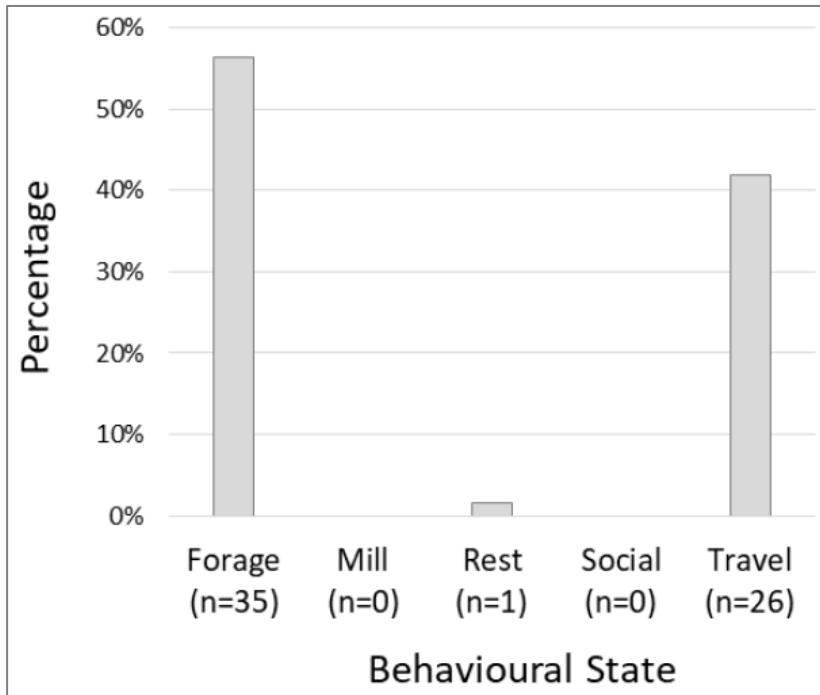


Figure 19: Stacked Bar Graph showing percentages of CWD Behavioural States (prior to filtering short-track data), excluding Unknown Category, relative to the Sha Chau and Lung Kwu Chau Marine Park Location, recorded from Lung Kwu Chau in 2022

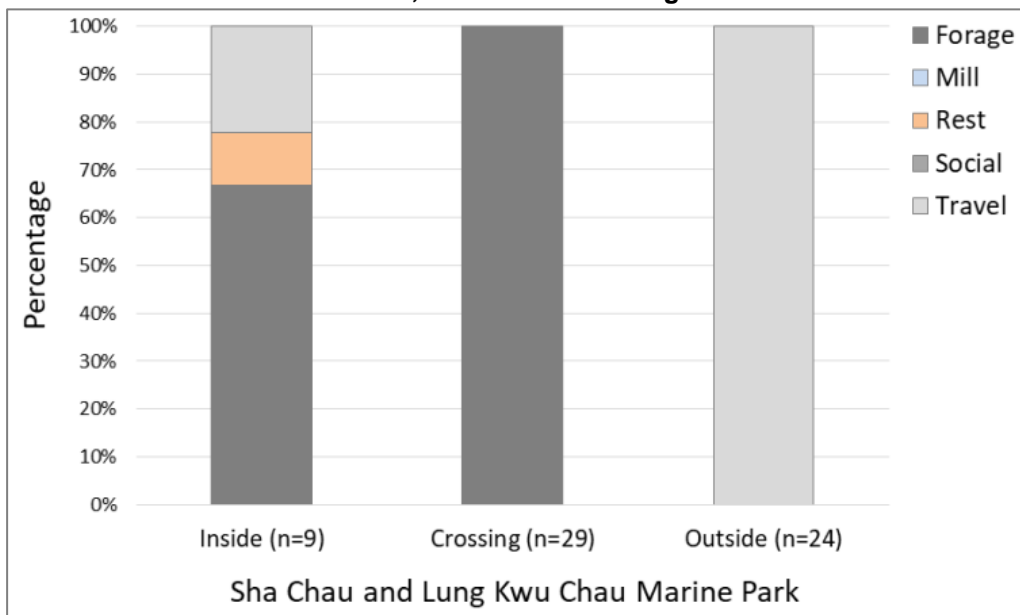


Figure 20: Plots of All Vessel Positions and All CWD Positions obtained from Lung Kwu Chau in 2022

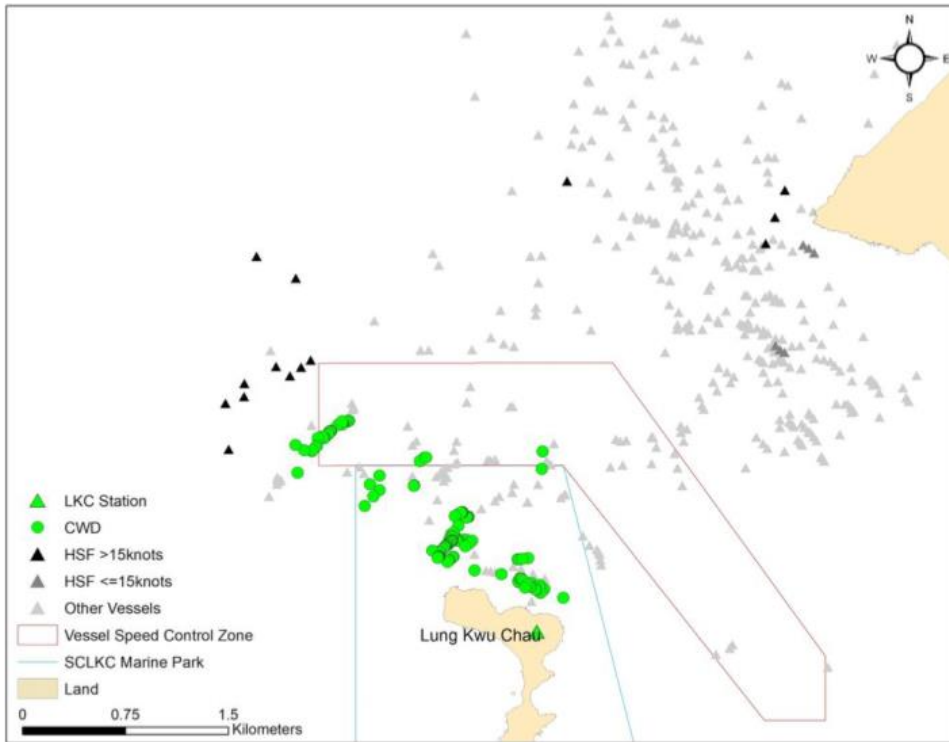
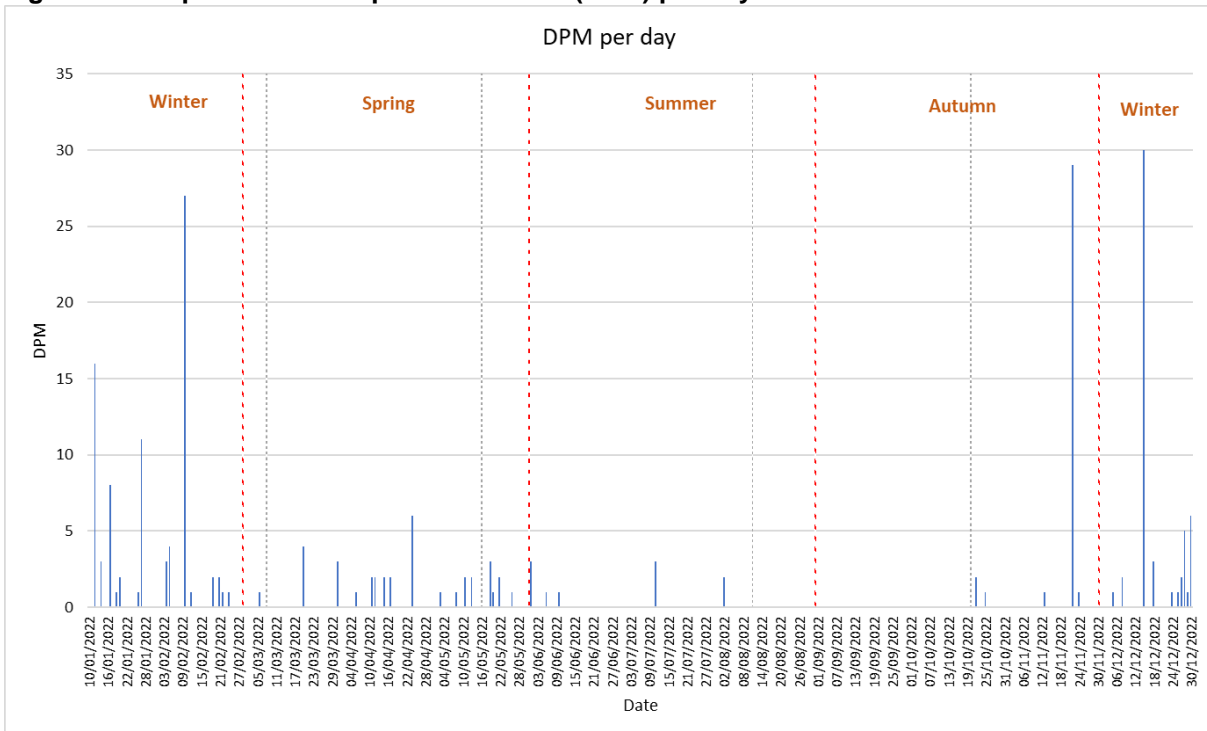


Figure 21: Dolphin detection positive minute (DPM) per day in 2022



[Grey dotted lines indicate deployment/retrieval of PAM device; red dotted lines indicate the solar seasons]

Figure 22: Dolphin DPM by Hour of Day in 2022

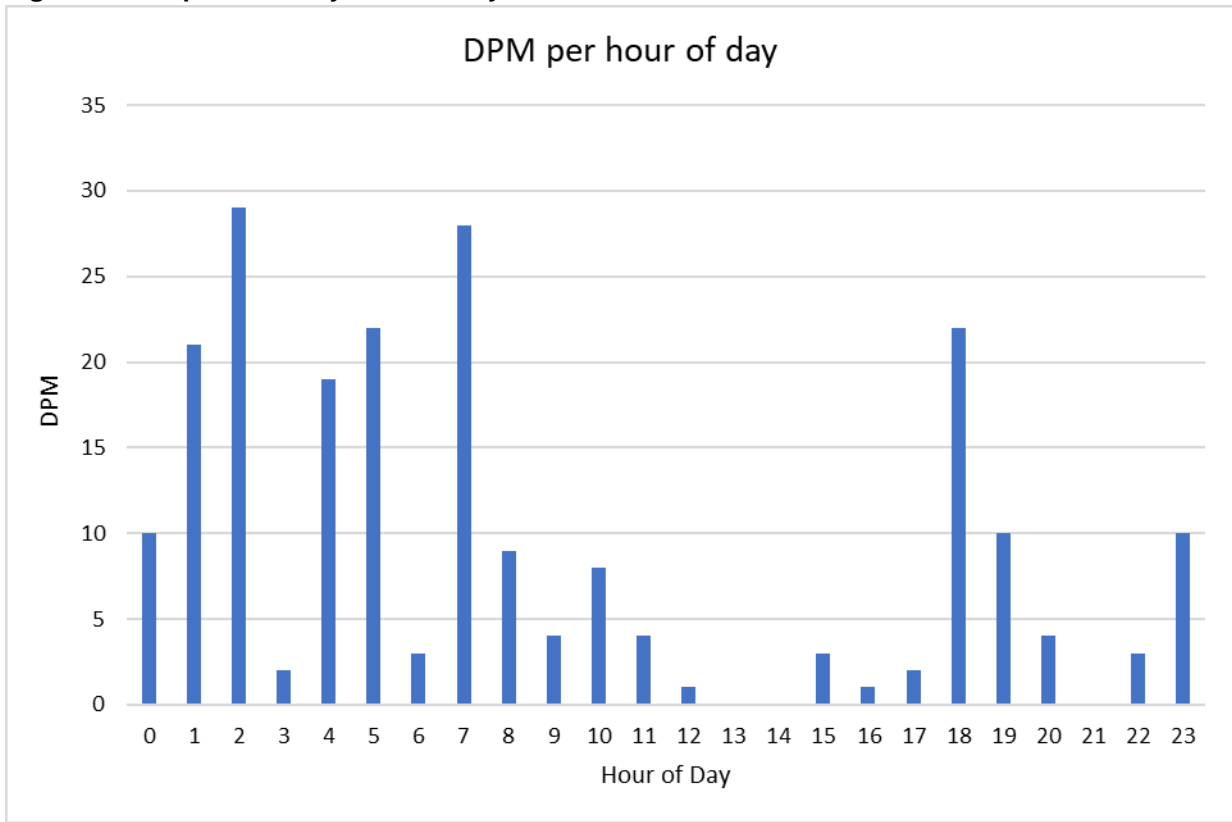
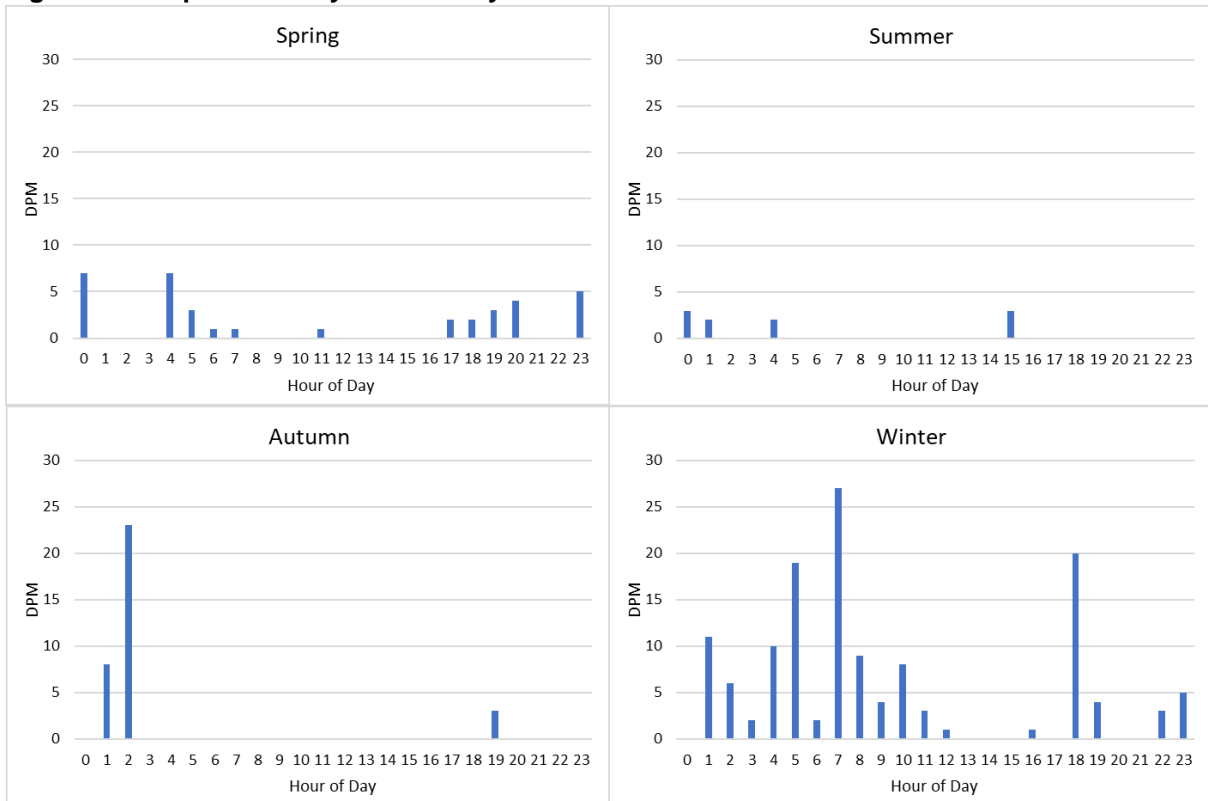


Figure 23: Dolphin DPM by Hour of Day and Solar Season in 2022



[Winter = Dec-Jan-Feb, Spring = Mar-Apr-May, Summer = Jun-Jul-Aug, Autumn = Sep-Oct-Nov]

Table 1: CWD Vessel Survey Effort by Survey Areas in 2022

Survey Area	Survey Effort (km)	Survey Effort under Favourable Weather Condition (km)
NEL	1131.3	1095.9
NWL	1806.2	1699.5
AW	110.9	106.9
WL	674.5	630.1
SWL	1620.4	1522.0
Combined	5343.3	5054.5

Table 2: CWD Sightings by Survey Areas in 2022

Survey Area	No. of Sighting (On-effort)	No. of Dolphin (On-effort)	No. of On-effort Sighting under Favourable Weather Condition	No. of On-effort Dolphin under Favourable Weather Condition
NEL	0	0	0	0
NWL	15	37	15	37
AW	1	1	1	1
WL	100	375	98	366
SWL	56	181	56	181
Combined	172	594	170	585

Table 3: CWD Encounter Rates by Survey Areas

Survey Area	Encounter Rate (STG)		Encounter Rate (ANI)	
	2021	2022	2021	2022
NEL	0	0	0	0
NWL	1.59	0.88	5.87	2.18
AW	0	0.94	0	0.94
WL	13.36	15.55	46.11	58.09
SWL	2.67	3.68	7.42	11.89
Combined	3.14	3.36	10.38	11.57

Table 4: Summary of Monthly and Running Quarterly Encounter Rates STG and ANI in 2022

Encounter Rate	Winter		Spring			Summer			Autumn			Winter
	Jan 22	Feb 22	Mar 22	Apr 22	May 22	Jun 22	Jul 22	Aug 22	Sep 22	Oct 22	Nov 22	Dec 22
Monthly STG	5.28	1.69	2.08	2.00	4.83	3.80	7.24	3.59	2.32	3.46	2.68	1.47
Monthly ANI	20.18	5.32	10.86	4.89	18.36	16.16	20.31	14.82	7.42	10.66	5.59	4.65
Running Quarterly STG	3.09	2.90	3.01	1.93	2.93	3.50	5.30	4.87	4.37	3.11	2.77	2.49
Running Quarterly ANI	11.43	10.19	12.12	7.02	11.19	12.93	18.29	17.07	14.18	11.03	7.67	6.73

Table 5: CWD Line Transects Parameters and Estimates of Density and Abundance for Western Hong Kong, 2022

Time Period	Stratum	No. of Sightings*	Average Group Size	Trackline Detection Prob. - g(0)	Individual Density (no./100km ²)	Abundance	95% CI (Abund.)	%CV
Jan-Dec 2022	AW	1	2.9	1.0	3.99	0	0-1	N/A
Jan-Dec 2022	DB	0	2.9	1.0	0.00	0	N/A	N/A
Jan-Dec 2022	NEL	0	2.9	1.0	0.00	0	N/A	N/A
Jan-Dec 2022	NWL	15	2.9	1.0	3.94	3	1-5	32.5
Jan-Dec 2022	SWL	53	2.9	1.0	15.13	10	7-15	20.2
Jan-Dec 2022	WL	96	2.9	1.0	67.95	22	15-33	19.6
Jan-Dec 2022	Pooled[^]	165	2.9	1.0	20.14	35	26-48	15.76
Jan-Dec 2022	Winter#	35	2.9	1.0	18.62	40	15-107	49.7
Jan-Dec 2022	Spring#	38	2.9	1.0	16.69	36	24-54	20.0
Jan-Dec 2022	Summer#	59	2.9	1.0	26.01	56	39-81	18.2
Jan-Dec 2022	Autumn#	33	2.9	1.0	11.18	24	14-42	27.7

* After truncation

[^] Pooled abundance not including Airport West (AW). Note that the pooled estimates do not necessarily add up to the sum of the individual stratum estimates, as these are computed separately.

The seasonal estimates do not include AW.

Table 6: Average Group Sizes of CWDs by Survey Areas in 2022

Survey Area	Average Group Size of CWDs
NEL	0.00
NWL	2.47
AW	1.00
WL	3.75
SWL	3.23
Overall	3.45 ± 3.03

Table 7: Average Group Sizes of CWDs by Seasons in 2022

Solar Season	Average Group Size of CWDs
Spring	3.82
Summer	3.51
Autumn	2.76
Winter	3.62

Table 8: Percentage of CWD Groups recorded as Exhibiting Various Behaviours/Activities, and recorded as having Association with Fishing Boat

Survey Area	Year	Activity				Fishing Boat Association
		Feeding	Travelling	Socialising	Resting/Milling	
AW	2021	-	-	-	-	-
	2022	-	-	-	-	-
NEL	2021	-	-	-	-	-
	2022	-	-	-	-	-
NWL	2021	29%	13%	21%	4%	-
	2022	20%	7%	13%	-	7%
WL	2021	24%	18%	21%	3%	8%
	2022	27%	19%	21%	1%	6%
SWL	2021	25%	3%	8%	3%	15%
	2022	32%	13%	20%	2%	13%
Overall	2021	27%	13%	17%	3%	9%
	2022	28%	16%	20%	1%	8%

Table 9: Summary of Photo Identification in 2022

Individual ID	Date of sighting (dd-mmm-yy)	Sighting No.	Area
NLMM009	13-Jun-22	1	NWL
NLMM013	15-Feb-22	1	NWL
	09-Sep-22	2	NWL
NLMM015	13-Jun-22	1	NWL
	23-Aug-22	2	WL
	19-Sep-22	1	WL
NLMM016	03-Jan-22	3	NWL
	23-Aug-22	2	WL
NLMM023	11-Nov-22	1	NWL
NLMM027	24-Jun-22	7	SWL
	17-Nov-22	1	WL
NLMM028	15-Feb-22	1	NWL
	09-Sep-22	2	NWL
NLMM039	22-Aug-22	2	WL
NLMM040	24-Jun-22	7	SWL
	22-Aug-22	4	WL
NLMM052	27-Apr-22	1	NWL
NLMM055	22-Apr-22	3	WL
NLMM058	11-Jul-22	2	WL
NLMM061	12-Jul-22	15	SWL
NLMM063	03-Jan-22	3	NWL
	13-Jul-22	6	SWL
NLMM069	24-Jun-22	4	WL
NLMM082	03-Jan-22	2	NWL
NLMM083	03-Jan-22	2	NWL
NLMM084	08-Mar-22	1	NWL
NLMM085	27-Apr-22	1	NWL
	24-Jun-22	7	SWL
	12-Jul-22	3	SWL
		6	SWL
SLMM002	11-Mar-22	2	WL
	05-May-22	5	WL
	30-May-22	4	SWL
	24-Jun-22	5	SWL
	12-Jul-22	2	SWL
		4	SWL
	13-Jul-22	4	SWL
	19-Sep-22	3	WL
	03-Oct-22	8	WL
	20-Oct-22	3	WL
SLMM003	11-Mar-22	2	WL
	06-May-22	8	WL
		9	WL
	27-May-22	2	SWL
02-Aug-22	1	SWL	
SLMM007	05-Jan-22	10	WL
	10-Jan-22	13	WL
		3	WL
	19-Jan-22	2	SWL
	10-Feb-22	1	WL
	27-May-22	2	SWL
03-Oct-22	5	WL	
SLMM010	10-Jan-22	3	WL
	11-Mar-22	2	WL
	15-Mar-22	2	WL
	27-May-22	2	SWL
SLMM012	05-Jan-22	13	WL
	11-Mar-22	2	WL
	15-Mar-22	5	WL
	06-May-22	3	WL

Individual ID	Date of sighting (dd-mmm-yy)	Sighting No.	Area
		5	WL
	30-May-22	4	SWL
	22-Jun-22	8	SWL
	24-Jun-22	5	SWL
SLMM014	23-Jun-22	3	SWL
	12-Jul-22	2	SWL
		7	SWL
	13-Jul-22	3	SWL
	02-Aug-22	2	SWL
	27-Oct-22	3	SWL
	17-Nov-22	6	WL
SLMM023	23-Aug-22	6	WL
	19-Sep-22	2	WL
	03-Oct-22	7	WL
	17-Nov-22	2	WL
	28-Dec-22	2	SWL
SLMM025	15-Mar-22	5	WL
	22-Apr-22	3	WL
	06-May-22	8	WL
		9	WL
	23-Jun-22	2	SWL
	03-Oct-22	6	WL
SLMM027	15-Mar-22	3	WL
	11-Jul-22	2	WL
SLMM029	10-Jan-22	3	WL
	15-Mar-22	2	WL
	12-Jul-22	8	SWL
	19-Sep-22	3	WL
SLMM030	05-Jan-22	1	AW
SLMM031	18-Nov-22	4	SWL
	28-Dec-22	2	SWL
SLMM034	24-Jun-22	5	SWL
SLMM035	23-Aug-22	5	WL
	06-Sep-22	12	SWL
	18-Nov-22	4	SWL
	28-Dec-22	2	SWL
		3	SWL
SLMM037	05-Jan-22	13	WL
	13-Jan-22	3	SWL
	11-Mar-22	2	WL
	14-Apr-22	2	WL
	22-Jun-22	8	SWL
	24-Jun-22	5	SWL
	12-Jul-22	2	SWL
	02-Aug-22	1	SWL
		2	SWL
	06-Sep-22	12	SWL
	20-Oct-22	3	WL
	17-Nov-22	6	WL
SLMM044	05-Jan-22	8	WL
		13	WL
	15-Mar-22	3	WL
	05-May-22	5	WL
	06-May-22	3	WL
	02-Aug-22	2	SWL
	19-Sep-22	2	WL
		3	WL
	21-Dec-22	2	WL
	29-Dec-22	1	WL
SLMM049	05-Jan-22	13	WL
	02-Aug-22	2	SWL
	19-Sep-22	2	WL

Individual ID	Date of sighting (dd-mmm-yy)	Sighting No.	Area
	17-Nov-22	4	WL
		5	WL
SLMM050	23-Jun-22	5	SWL
	13-Jul-22	4	SWL
SLMM052	05-Jan-22	10	WL
	15-Mar-22	1	WL
	22-Apr-22	3	WL
	27-May-22	2	SWL
	02-Aug-22	2	SWL
SLMM055	05-Jan-22	6	WL
		2	WL
SLMM058	05-Jan-22	5	WL
	03-Oct-22	3	WL
SLMM059	17-Nov-22	1	WL
	23-Aug-22	6	WL
SLMM060	17-Nov-22	2	WL
	14-Mar-22	6	SWL
	11-Apr-22	16	SWL
	22-Jun-22	9	SWL
	12-Jul-22	9	SWL
SLMM064	09-Nov-22	4	WL
SLMM073	19-Jan-22	2	SWL
	05-Jan-22	10	WL
SLMM074	10-Jan-22	13	WL
	10-Jan-22	3	WL
	10-Feb-22	1	WL
SLMM075	24-Jun-22	7	SWL
	08-Jul-22	4	WL
	17-Nov-22	1	WL
SLMM076	24-Jun-22	7	SWL
	22-Aug-22	4	WL
WLMM001	24-Jun-22	7	SWL
	05-Jan-22	10	WL
	05-Jan-22	13	WL
	13-Jan-22	3	SWL
	15-Mar-22	5	WL
	22-Apr-22	3	WL
	27-May-22	2	SWL
20-Oct-22	2	WL	
WLMM003	21-Dec-22	2	WL
	05-Jan-22	7	WL
	05-Jan-22	8	WL
	05-Jan-22	13	WL
	23-Jun-22	1	SWL
WLMM004	11-Jul-22	1	WL
	13-Jul-22	7	SWL
WLMM005	02-Aug-22	2	SWL
	05-May-22	1	WL
	05-May-22	5	WL
WLMM007	29-Dec-22	1	WL
	23-Aug-22	5	WL
	19-Sep-22	3	WL
WLMM013	03-Oct-22	6	WL
	24-Jun-22	2	WL
WLMM018	24-Jun-22	4	WL
	08-Jul-22	4	WL
	19-Sep-22	2	WL
WLMM019	03-Oct-22	6	WL
	15-Feb-22	1	NWL
	23-Jun-22	5	SWL
	11-Jul-22	1	WL

Individual ID	Date of sighting (dd-mmm-yy)	Sighting No.	Area
WLMM027	03-Jan-22	2	NWL
	05-Jan-22	2	WL
WLMM028	10-Feb-22	1	WL
	21-Dec-22	2	WL
WLMM029	23-Aug-22	5	WL
	17-Nov-22	1	WL
	28-Dec-22	2	SWL
		3	SWL
WLMM038	08-Jul-22	2	WL
WLMM043	07-Apr-22	1	NWL
	06-May-22	1	WL
	20-Sep-22	1	WL
WLMM047	12-Jul-22	10	SWL
WLMM049	23-Jun-22	5	SWL
	24-Jun-22	7	SWL
	12-Jul-22	13	SWL
	13-Jul-22	10	SWL
	21-Dec-22	2	WL
WLMM052	06-May-22	3	WL
	24-Jun-22	4	WL
	08-Jul-22	2	WL
	03-Oct-22	4	WL
WLMM056	11-Mar-22	2	WL
	22-Apr-22	3	WL
	05-May-22	1	WL
	06-May-22	5	WL
		3	WL
	24-Jun-22	5	SWL
	02-Aug-22	2	SWL
	03-Aug-22	3	SWL
	06-Sep-22	12	SWL
	WLMM063	11-Mar-22	2
02-Aug-22		2	SWL
23-Aug-22		5	WL
21-Dec-22		2	WL
WLMM065	03-Jan-22	3	NWL
	05-Jan-22	5	WL
		6	WL
WLMM067	05-Jan-22	11	WL
	19-Jan-22	2	SWL
	15-Mar-22	1	WL
		3	WL
	02-Aug-22	2	SWL
	23-Aug-22	2	WL
		3	WL
WLMM071	08-Mar-22	1	NWL
	23-Jun-22	5	SWL
	20-Oct-22	1	WL
WLMM073	05-Jan-22	7	WL
	15-Mar-22	3	WL
	06-May-22	3	WL
WLMM076	12-Jul-22	13	SWL
WLMM079	10-Jan-22	2	WL
	15-Mar-22	3	WL
	27-May-22	2	SWL
	30-May-22	4	SWL
	23-Jun-22	5	SWL
	02-Aug-22	2	SWL
WLMM080	22-Apr-22	3	WL
WLMM081	11-Jul-22	2	WL
WLMM083	08-Jul-22	2	WL
		3	WL

Individual ID	Date of sighting (dd-mmm-yy)	Sighting No.	Area
WLMM092	23-Aug-22	2	WL
WLMM095	05-Jan-22	4	WL
WLMM109	10-Feb-22	1	WL
	11-Mar-22	2	WL
	15-Mar-22	4	WL
	02-Aug-22	2	SWL
	03-Oct-22	7	WL
WLMM114	13-Jan-22	3	SWL
	10-Feb-22	1	WL
	11-Mar-22	2	WL
	05-May-22	7	WL
	30-May-22	4	SWL
	19-Sep-22	3	WL
WLMM118	20-Oct-22	2	WL
	05-Jan-22	7	WL
	03-Oct-22	6	WL
WLMM131	13	WL	
	03-Jan-22	2	NWL
	22-Jun-22	7	SWL
	12-Jul-22	1	SWL
	06-Sep-22	4	SWL
		12	SWL
03-Oct-22	16	SWL	
03-Oct-22	8	WL	
WLMM133	30-May-22	4	SWL
WLMM135	02-Aug-22	2	SWL
WLMM136	06-May-22	3	WL
WLMM141	10-Jan-22	3	WL
WLMM147	23-Jun-22	5	SWL
WLMM149	08-Mar-22	1	NWL
WLMM150	15-Mar-22	1	WL
		3	WL
WLMM151	23-Aug-22	5	WL
WLMM152	10-Feb-22	1	WL
	03-Oct-22	5	WL
		6	WL
WLMM163	23-Jun-22	5	SWL
	29-Dec-22	1	WL
WLMM164	13-Jun-22	1	NWL
	19-Sep-22	1	WL
WLMM165	05-Jan-22	2	WL
WLMM168	08-Mar-22	1	NWL
	20-Oct-22	1	WL
WLMM171	05-Jan-22	13	WL
WLMM172	11-Mar-22	1	WL
WLMM173	11-Mar-22	2	WL
WLMM174	11-Mar-22	2	WL
	15-Mar-22	4	WL
WLMM175	05-May-22	1	WL
		5	WL
WLMM176	24-Jun-22	4	WL
	08-Jul-22	2	WL
	03-Oct-22	4	WL
WLMM177	08-Jul-22	1	WL
WLMM178	08-Jul-22	2	WL
WLMM179	11-Jul-22	4	WL
WLMM180	11-Jul-22	4	WL

Table 10: Land-based Survey, Theodolite Effort and CWD Group Summary in 2022

Land-based Station	# of Survey Sessions	Survey Effort (hh:mm)	# CWD Groups Sighted	CWD Group Sighting per Survey Hr	# Groups After Filtering	# of 10-minutes segments
Sha Chau	12	72:00	0	0	0	0
Lung Kwu Chau	12	72:00	5	0.07	3	4
TOTAL	24	144:00	5	0.03	3	4

Table 11: Land-based CWD Focal Group Size Summary in 2022

Category	n (sample size)	Minimum # Individuals	Maximum # Individuals	Mean Grp Size	Standard Deviation
Lung Kwu Chau Station Total	5	1	5	2.2	1.6
Winter	1	1	1	1	0
Spring	0	0	0	0	0
Summer	0	0	0	0	0
Autumn	4	1	5	2.5	1.7
Dry	5	1	5	2.2	1.6
Wet	0	0	0	0	0
Inside SCLKCMP boundary	2	1	2	1.5	0.7
Crossing SCLKCMP boundary	2	1	2	1.5	0.7
Outside SCLKCMP boundary	1	5	5	5	0
No vessel	3	1	2	1.7	0.6
High speed ferry within 500 m	0	0	0	0	0
Other vessels within 500 m	1	2	2	2	0

Table 12: CWD Mean Swimming Speed, Reorientation Rate, and Linearity based on Vessel Presence recorded from Lung Kwu Chau in 2022 (based on filtered short-track segments)

Vessel Type	Segment Sample Size	Mean Speed (Std. dev.)	Mean Reorientation Rate (Std. dev.)	Mean Linearity (Std. dev.)
No vessel	3	6.17 (3.77)	41.07 (8.32)	0.63 (0.32)
High speed ferry	0	0	0	0
Other vessels	1	2.79 (0)	56.95 (0)	0.61 (0)

Table 13: Summary of PAM Deployments and Dolphin Detections, 10 Jan 2022 to 30 Dec 2022

Site	Dep #	Deployment date (dd/mm/yyyy)	Retrieval date (dd/mm/yyyy)	Dep days	Logged days	Dolphin DPM	Dolphin DPD	DPD % of days
A5	1	10/01/2022	08/03/2022	58	58.0	84	16	27.60%
A5	2	08/03/2022	16/05/2022	70	70.0	28	12	17.15%
A5	3	16/05/2022	11/08/2022	88	88.0	17	9	10.23%
A5	4	11/08/2022	20/10/2022	71	71.0	0	0	0%
A5	5	20/10/2022	30/12/2022	72	72.0	86	15	20.84%
A5	Total	10/01/2022	30/12/2022	359	358.9	215	52	14.49%

Remarks:

Dep = Deployment

DPD = detection positive days (days with one or more dolphin detections)

DPM = detection positive minutes (minutes with at least one dolphin click train detected)

DPD % = detection positive days as a percentage of total logged days

Table 14: Summary of PAM Deployments and Dolphin Detections in Previous Year (30 Dec 2020 to 10 Jan 2022)

Site	Dep #	Deployment date (dd/mm/yyyy)	Retrieval date (dd/mm/yyyy)	Dep days	Logged days	Dolphin DPM	Dolphin DPD	DPD % of days
A5	1	30/12/2020	24/02/2021	57	0	0	0	0%
A5	2	24/02/2021	08/03/2021	13	13.0	0	0	0%
A5	3	08/03/2021	20/05/2021	74	74.0	0	0	0%
A5	4	20/05/2021	04/08/2021	77	32.2	0	0	0%
A5	5	04/08/2021	11/10/2021	69	69.0	16	7	10.14%
A5	6	11/10/2021	10/01/2022	92	91.8	58	12	13.07%
A5	Total	30/12/2020	10/01/2022	382	279.9	74	19	6.79%

Remarks:

Dep = Deployment

DPD = detection positive days (days with one or more dolphin detections)

DPM = detection positive minutes (minutes with at least one dolphin click train detected)

DPD % = detection positive days as a percentage of total logged days

CWD Small Vessel Line-transect Survey

Survey Effort Data

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
03-Jan-22	NWL	2	48.340	WINTER	32166	3RS ET	P
03-Jan-22	NWL	3	13.940	WINTER	32166	3RS ET	P
03-Jan-22	NWL	2	11.440	WINTER	32166	3RS ET	S
04-Jan-22	DB	2	4.820	WINTER	32166	3RS ET	P
04-Jan-22	DB	3	2.800	WINTER	32166	3RS ET	P
04-Jan-22	DB	2	2.060	WINTER	32166	3RS ET	S
04-Jan-22	DB	3	2.220	WINTER	32166	3RS ET	S
04-Jan-22	NEL	2	6.300	WINTER	32166	3RS ET	P
04-Jan-22	NEL	3	23.630	WINTER	32166	3RS ET	P
04-Jan-22	NEL	4	7.300	WINTER	32166	3RS ET	P
04-Jan-22	NEL	3	7.770	WINTER	32166	3RS ET	S
04-Jan-22	NEL	4	1.800	WINTER	32166	3RS ET	S
05-Jan-22	AW	2	0.800	WINTER	32166	3RS ET	P
05-Jan-22	AW	3	1.770	WINTER	32166	3RS ET	P
05-Jan-22	AW	4	1.920	WINTER	32166	3RS ET	P
05-Jan-22	WL	2	10.474	WINTER	32166	3RS ET	P
05-Jan-22	WL	2	5.590	WINTER	32166	3RS ET	S
05-Jan-22	WL	3	0.504	WINTER	32166	3RS ET	S
10-Jan-22	AW	2	4.820	WINTER	32166	3RS ET	P
10-Jan-22	WL	2	12.835	WINTER	32166	3RS ET	P
10-Jan-22	WL	3	6.493	WINTER	32166	3RS ET	P
10-Jan-22	WL	2	5.225	WINTER	32166	3RS ET	S
10-Jan-22	WL	3	4.587	WINTER	32166	3RS ET	S
11-Jan-22	NEL	2	7.450	WINTER	32166	3RS ET	P
11-Jan-22	NEL	3	28.850	WINTER	32166	3RS ET	P
11-Jan-22	NEL	4	1.100	WINTER	32166	3RS ET	P
11-Jan-22	NEL	2	3.390	WINTER	32166	3RS ET	S
11-Jan-22	NEL	3	5.510	WINTER	32166	3RS ET	S
11-Jan-22	NEL	4	0.800	WINTER	32166	3RS ET	S
12-Jan-22	NWL	2	12.600	WINTER	32166	3RS ET	P
12-Jan-22	NWL	3	50.400	WINTER	32166	3RS ET	P
12-Jan-22	NWL	2	3.300	WINTER	32166	3RS ET	S
12-Jan-22	NWL	3	8.600	WINTER	32166	3RS ET	S
11-Jan-22	DB	3	7.620	WINTER	32166	3RS ET	P
11-Jan-22	DB	3	3.980	WINTER	32166	3RS ET	S
13-Jan-22	SWL	2	38.742	WINTER	32166	3RS ET	P
13-Jan-22	SWL	3	14.940	WINTER	32166	3RS ET	P
13-Jan-22	SWL	2	13.268	WINTER	32166	3RS ET	S
13-Jan-22	SWL	3	2.260	WINTER	32166	3RS ET	S
19-Jan-22	SWL	2	26.240	WINTER	32166	3RS ET	P
19-Jan-22	SWL	3	21.930	WINTER	32166	3RS ET	P
19-Jan-22	SWL	4	5.500	WINTER	32166	3RS ET	P
19-Jan-22	SWL	2	10.780	WINTER	32166	3RS ET	S
19-Jan-22	SWL	3	3.510	WINTER	32166	3RS ET	S
19-Jan-22	SWL	4	1.920	WINTER	32166	3RS ET	S
07-Feb-22	DB	2	4.800	WINTER	32166	3RS ET	P
07-Feb-22	DB	3	2.820	WINTER	32166	3RS ET	P
07-Feb-22	DB	2	0.850	WINTER	32166	3RS ET	S

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
07-Feb-22	DB	3	3.130	WINTER	32166	3RS ET	S
07-Feb-22	NEL	2	22.800	WINTER	32166	3RS ET	P
07-Feb-22	NEL	3	7.990	WINTER	32166	3RS ET	P
07-Feb-22	NEL	4	5.840	WINTER	32166	3RS ET	P
07-Feb-22	NEL	2	7.900	WINTER	32166	3RS ET	S
07-Feb-22	NEL	3	1.000	WINTER	32166	3RS ET	S
07-Feb-22	NEL	4	1.070	WINTER	32166	3RS ET	S
08-Feb-22	AW	3	4.930	WINTER	32166	3RS ET	P
08-Feb-22	WL	3	14.850	WINTER	32166	3RS ET	P
08-Feb-22	WL	4	5.800	WINTER	32166	3RS ET	P
08-Feb-22	WL	2	1.220	WINTER	32166	3RS ET	S
08-Feb-22	WL	3	7.030	WINTER	32166	3RS ET	S
08-Feb-22	WL	4	2.000	WINTER	32166	3RS ET	S
09-Feb-22	NWL	3	47.720	WINTER	32166	3RS ET	P
09-Feb-22	NWL	4	16.480	WINTER	32166	3RS ET	P
09-Feb-22	NWL	3	11.700	WINTER	32166	3RS ET	S
10-Feb-22	AW	2	4.770	WINTER	32166	3RS ET	P
10-Feb-22	WL	3	19.968	WINTER	32166	3RS ET	P
10-Feb-22	WL	3	9.014	WINTER	32166	3RS ET	S
14-Feb-22	NEL	2	33.240	WINTER	32166	3RS ET	P
14-Feb-22	NEL	3	3.440	WINTER	32166	3RS ET	P
14-Feb-22	NEL	2	9.120	WINTER	32166	3RS ET	S
14-Feb-22	NEL	3	1.200	WINTER	32166	3RS ET	S
14-Feb-22	DB	2	1.500	WINTER	32166	3RS ET	P
14-Feb-22	DB	3	4.710	WINTER	32166	3RS ET	P
14-Feb-22	DB	4	1.320	WINTER	32166	3RS ET	P
14-Feb-22	DB	2	0.950	WINTER	32166	3RS ET	S
14-Feb-22	DB	3	3.120	WINTER	32166	3RS ET	S
15-Feb-22	NWL	2	48.350	WINTER	32166	3RS ET	P
15-Feb-22	NWL	3	14.780	WINTER	32166	3RS ET	P
15-Feb-22	NWL	2	7.770	WINTER	32166	3RS ET	S
15-Feb-22	NWL	3	3.400	WINTER	32166	3RS ET	S
02-Mar-22	SWL	1	19.328	WINTER	32166	3RS ET	P
02-Mar-22	SWL	2	26.443	WINTER	32166	3RS ET	P
02-Mar-22	SWL	3	4.330	WINTER	32166	3RS ET	P
02-Mar-22	SWL	1	5.230	WINTER	32166	3RS ET	S
02-Mar-22	SWL	2	10.819	WINTER	32166	3RS ET	S
02-Mar-22	SWL	3	1.616	WINTER	32166	3RS ET	S
04-Mar-22	SWL	1	3.665	WINTER	32166	3RS ET	P
04-Mar-22	SWL	2	12.934	WINTER	32166	3RS ET	P
04-Mar-22	SWL	3	31.502	WINTER	32166	3RS ET	P
04-Mar-22	SWL	2	3.628	WINTER	32166	3RS ET	S
04-Mar-22	SWL	3	11.733	WINTER	32166	3RS ET	S
07-Mar-22	DB	2	4.550	SPRING	32166	3RS ET	P
07-Mar-22	DB	3	2.870	SPRING	32166	3RS ET	P
07-Mar-22	DB	2	1.980	SPRING	32166	3RS ET	S
07-Mar-22	DB	3	2.000	SPRING	32166	3RS ET	S
07-Mar-22	NEL	2	14.130	SPRING	32166	3RS ET	P
07-Mar-22	NEL	3	19.300	SPRING	32166	3RS ET	P

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
07-Mar-22	NEL	4	3.200	SPRING	32166	3RS ET	P
07-Mar-22	NEL	2	4.270	SPRING	32166	3RS ET	S
07-Mar-22	NEL	3	6.300	SPRING	32166	3RS ET	S
08-Mar-22	NWL	2	32.300	SPRING	32166	3RS ET	P
08-Mar-22	NWL	3	23.320	SPRING	32166	3RS ET	P
08-Mar-22	NWL	4	7.600	SPRING	32166	3RS ET	P
08-Mar-22	NWL	2	6.840	SPRING	32166	3RS ET	S
08-Mar-22	NWL	3	3.140	SPRING	32166	3RS ET	S
08-Mar-22	NWL	4	2.000	SPRING	32166	3RS ET	S
11-Mar-22	AW	2	1.170	SPRING	32166	3RS ET	P
11-Mar-22	AW	3	3.550	SPRING	32166	3RS ET	P
11-Mar-22	WL	2	14.610	SPRING	32166	3RS ET	P
11-Mar-22	WL	3	3.830	SPRING	32166	3RS ET	P
11-Mar-22	WL	2	9.470	SPRING	32166	3RS ET	S
14-Mar-22	SWL	2	24.960	SPRING	32166	3RS ET	P
14-Mar-22	SWL	3	29.540	SPRING	32166	3RS ET	P
14-Mar-22	SWL	2	4.000	SPRING	32166	3RS ET	S
14-Mar-22	SWL	3	8.950	SPRING	32166	3RS ET	S
15-Mar-22	AW	1	4.900	SPRING	32166	3RS ET	P
15-Mar-22	WL	2	10.915	SPRING	32166	3RS ET	P
15-Mar-22	WL	3	6.986	SPRING	32166	3RS ET	P
15-Mar-22	WL	2	5.325	SPRING	32166	3RS ET	S
15-Mar-22	WL	3	3.640	SPRING	32166	3RS ET	S
16-Mar-22	DB	2	7.200	SPRING	32166	3RS ET	P
16-Mar-22	DB	3	0.400	SPRING	32166	3RS ET	P
16-Mar-22	DB	2	1.830	SPRING	32166	3RS ET	S
16-Mar-22	DB	3	2.170	SPRING	32166	3RS ET	S
16-Mar-22	NEL	2	28.140	SPRING	32166	3RS ET	P
16-Mar-22	NEL	3	8.300	SPRING	32166	3RS ET	P
16-Mar-22	NEL	2	9.000	SPRING	32166	3RS ET	S
16-Mar-22	NEL	3	1.160	SPRING	32166	3RS ET	S
18-Mar-22	SWL	1	6.271	SPRING	32166	3RS ET	P
18-Mar-22	SWL	2	41.900	SPRING	32166	3RS ET	P
18-Mar-22	SWL	3	6.190	SPRING	32166	3RS ET	P
18-Mar-22	SWL	1	0.890	SPRING	32166	3RS ET	S
18-Mar-22	SWL	2	12.000	SPRING	32166	3RS ET	S
18-Mar-22	SWL	3	1.940	SPRING	32166	3RS ET	S
21-Mar-22	NWL	2	18.260	SPRING	32166	3RS ET	P
21-Mar-22	NWL	3	45.540	SPRING	32166	3RS ET	P
21-Mar-22	NWL	2	1.100	SPRING	32166	3RS ET	S
21-Mar-22	NWL	3	10.500	SPRING	32166	3RS ET	S
06-Apr-22	SWL	2	23.067	SPRING	32166	3RS ET	P
06-Apr-22	SWL	3	31.346	SPRING	32166	3RS ET	P
06-Apr-22	SWL	2	9.583	SPRING	32166	3RS ET	S
06-Apr-22	SWL	3	6.754	SPRING	32166	3RS ET	S
07-Apr-22	NWL	2	57.470	SPRING	32166	3RS ET	P
07-Apr-22	NWL	3	6.100	SPRING	32166	3RS ET	P
07-Apr-22	NWL	2	10.531	SPRING	32166	3RS ET	S
07-Apr-22	NWL	3	1.000	SPRING	32166	3RS ET	S

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
11-Apr-22	SWL	1	8.575	SPRING	32166	3RS ET	P
11-Apr-22	SWL	2	44.677	SPRING	32166	3RS ET	P
11-Apr-22	SWL	1	0.902	SPRING	32166	3RS ET	S
11-Apr-22	SWL	2	13.602	SPRING	32166	3RS ET	S
14-Apr-22	AW	3	4.910	SPRING	32166	3RS ET	P
14-Apr-22	WL	3	19.290	SPRING	32166	3RS ET	P
14-Apr-22	WL	3	9.650	SPRING	32166	3RS ET	S
19-Apr-22	NEL	2	23.100	SPRING	32166	3RS ET	P
19-Apr-22	NEL	3	14.150	SPRING	32166	3RS ET	P
19-Apr-22	NEL	2	4.100	SPRING	32166	3RS ET	S
19-Apr-22	NEL	3	5.850	SPRING	32166	3RS ET	S
19-Apr-22	DB	2	5.010	SPRING	32166	3RS ET	P
19-Apr-22	DB	3	3.140	SPRING	32166	3RS ET	P
19-Apr-22	DB	2	2.480	SPRING	32166	3RS ET	S
19-Apr-22	DB	3	0.970	SPRING	32166	3RS ET	S
20-Apr-22	DB	2	7.520	SPRING	32166	3RS ET	P
20-Apr-22	DB	2	4.080	SPRING	32166	3RS ET	S
20-Apr-22	NEL	2	37.370	SPRING	32166	3RS ET	P
20-Apr-22	NEL	2	9.830	SPRING	32166	3RS ET	S
22-Apr-22	WL	2	14.921	SPRING	32166	3RS ET	P
22-Apr-22	WL	3	3.677	SPRING	32166	3RS ET	P
22-Apr-22	WL	2	6.456	SPRING	32166	3RS ET	S
22-Apr-22	WL	3	4.163	SPRING	32166	3RS ET	S
22-Apr-22	AW	1	3.220	SPRING	32166	3RS ET	P
22-Apr-22	AW	2	1.590	SPRING	32166	3RS ET	P
27-Apr-22	NWL	1	4.250	SPRING	32166	3RS ET	P
27-Apr-22	NWL	2	32.750	SPRING	32166	3RS ET	P
27-Apr-22	NWL	3	24.650	SPRING	32166	3RS ET	P
27-Apr-22	NWL	4	1.000	SPRING	32166	3RS ET	P
27-Apr-22	NWL	2	6.100	SPRING	32166	3RS ET	S
27-Apr-22	NWL	3	5.840	SPRING	32166	3RS ET	S
05-May-22	AW	2	2.920	SPRING	32166	3RS ET	P
05-May-22	AW	3	2.000	SPRING	32166	3RS ET	P
05-May-22	WL	2	5.195	SPRING	32166	3RS ET	P
05-May-22	WL	3	9.037	SPRING	32166	3RS ET	P
05-May-22	WL	4	2.510	SPRING	32166	3RS ET	P
05-May-22	WL	2	3.705	SPRING	32166	3RS ET	S
05-May-22	WL	3	4.821	SPRING	32166	3RS ET	S
05-May-22	WL	4	0.950	SPRING	32166	3RS ET	S
06-May-22	AW	2	2.930	SPRING	32166	3RS ET	P
06-May-22	AW	3	1.880	SPRING	32166	3RS ET	P
06-May-22	WL	2	6.666	SPRING	32166	3RS ET	P
06-May-22	WL	3	6.387	SPRING	32166	3RS ET	P
06-May-22	WL	2	3.577	SPRING	32166	3RS ET	S
06-May-22	WL	3	1.092	SPRING	32166	3RS ET	S
06-May-22	WL	4	1.192	SPRING	32166	3RS ET	S
10-May-22	NWL	2	12.600	SPRING	32166	3RS ET	P
10-May-22	NWL	3	48.400	SPRING	32166	3RS ET	P
10-May-22	NWL	4	2.200	SPRING	32166	3RS ET	P

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
10-May-22	NWL	2	3.100	SPRING	32166	3RS ET	S
10-May-22	NWL	3	9.200	SPRING	32166	3RS ET	S
11-May-22	NWL	3	48.600	SPRING	32166	3RS ET	P
11-May-22	NWL	4	15.800	SPRING	32166	3RS ET	P
11-May-22	NWL	3	10.300	SPRING	32166	3RS ET	S
11-May-22	NWL	4	1.000	SPRING	32166	3RS ET	S
16-May-22	DB	2	3.420	SPRING	32166	3RS ET	P
16-May-22	DB	3	4.290	SPRING	32166	3RS ET	P
16-May-22	DB	2	2.030	SPRING	32166	3RS ET	S
16-May-22	DB	3	1.760	SPRING	32166	3RS ET	S
16-May-22	NEL	2	28.540	SPRING	32166	3RS ET	P
16-May-22	NEL	3	9.600	SPRING	32166	3RS ET	P
16-May-22	NEL	2	10.460	SPRING	32166	3RS ET	S
17-May-22	DB	2	0.300	SPRING	32166	3RS ET	P
17-May-22	DB	3	7.160	SPRING	32166	3RS ET	P
17-May-22	DB	2	2.280	SPRING	32166	3RS ET	S
17-May-22	DB	3	1.960	SPRING	32166	3RS ET	S
17-May-22	NEL	2	31.980	SPRING	32166	3RS ET	P
17-May-22	NEL	3	4.880	SPRING	32166	3RS ET	P
17-May-22	NEL	2	10.340	SPRING	32166	3RS ET	S
27-May-22	SWL	2	21.030	SPRING	32166	3RS ET	P
27-May-22	SWL	3	32.180	SPRING	32166	3RS ET	P
27-May-22	SWL	2	3.980	SPRING	32166	3RS ET	S
27-May-22	SWL	3	12.230	SPRING	32166	3RS ET	S
30-May-22	SWL	2	37.268	SPRING	32166	3RS ET	P
30-May-22	SWL	3	13.317	SPRING	32166	3RS ET	P
30-May-22	SWL	2	10.802	SPRING	32166	3RS ET	S
30-May-22	SWL	3	4.900	SPRING	32166	3RS ET	S
08-Jun-22	NEL	2	33.490	SUMMER	32166	3RS ET	P
08-Jun-22	NEL	3	4.100	SUMMER	32166	3RS ET	P
08-Jun-22	NEL	2	9.710	SUMMER	32166	3RS ET	S
08-Jun-22	DB	2	7.030	SUMMER	32166	3RS ET	P
08-Jun-22	DB	2	4.170	SUMMER	32166	3RS ET	S
10-Jun-22	NEL	2	8.150	SUMMER	32166	3RS ET	P
10-Jun-22	NEL	3	29.260	SUMMER	32166	3RS ET	P
10-Jun-22	NEL	2	2.100	SUMMER	32166	3RS ET	S
10-Jun-22	NEL	3	8.090	SUMMER	32166	3RS ET	S
10-Jun-22	DB	2	1.790	SUMMER	32166	3RS ET	P
10-Jun-22	DB	3	5.720	SUMMER	32166	3RS ET	P
10-Jun-22	DB	2	2.000	SUMMER	32166	3RS ET	S
10-Jun-22	DB	3	2.290	SUMMER	32166	3RS ET	S
13-Jun-22	NWL	3	44.400	SUMMER	32166	3RS ET	P
13-Jun-22	NWL	4	19.600	SUMMER	32166	3RS ET	P
13-Jun-22	NWL	3	8.700	SUMMER	32166	3RS ET	S
13-Jun-22	NWL	4	2.900	SUMMER	32166	3RS ET	S
16-Jun-22	NWL	2	5.000	SUMMER	32166	3RS ET	P
16-Jun-22	NWL	3	56.100	SUMMER	32166	3RS ET	P
16-Jun-22	NWL	4	2.200	SUMMER	32166	3RS ET	P
16-Jun-22	NWL	3	11.300	SUMMER	32166	3RS ET	S

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
16-Jun-22	NWL	4	1.200	SUMMER	32166	3RS ET	S
21-Jun-22	WL	2	2.300	SUMMER	32166	3RS ET	P
21-Jun-22	WL	3	18.350	SUMMER	32166	3RS ET	P
21-Jun-22	WL	3	10.750	SUMMER	32166	3RS ET	S
21-Jun-22	AW	3	2.840	SUMMER	32166	3RS ET	P
21-Jun-22	AW	4	2.030	SUMMER	32166	3RS ET	P
22-Jun-22	SWL	2	53.159	SUMMER	32166	3RS ET	P
22-Jun-22	SWL	2	14.980	SUMMER	32166	3RS ET	S
23-Jun-22	SWL	2	44.900	SUMMER	32166	3RS ET	P
23-Jun-22	SWL	3	1.800	SUMMER	32166	3RS ET	P
23-Jun-22	SWL	2	11.271	SUMMER	32166	3RS ET	S
23-Jun-22	SWL	3	2.000	SUMMER	32166	3RS ET	S
24-Jun-22	AW	2	4.280	SUMMER	32166	3RS ET	P
24-Jun-22	WL	2	7.205	SUMMER	32166	3RS ET	P
24-Jun-22	WL	3	11.842	SUMMER	32166	3RS ET	P
24-Jun-22	WL	2	2.828	SUMMER	32166	3RS ET	S
24-Jun-22	WL	3	7.080	SUMMER	32166	3RS ET	S
24-Jun-22	SWL	3	3.901	SUMMER	32166	3RS ET	P
24-Jun-22	SWL	3	0.965	SUMMER	32166	3RS ET	S
06-Jul-22	DB	3	7.500	SUMMER	32166	3RS ET	P
06-Jul-22	DB	3	4.200	SUMMER	32166	3RS ET	S
06-Jul-22	NEL	2	30.220	SUMMER	32166	3RS ET	P
06-Jul-22	NEL	3	6.900	SUMMER	32166	3RS ET	P
06-Jul-22	NEL	2	7.080	SUMMER	32166	3RS ET	S
06-Jul-22	NEL	3	3.200	SUMMER	32166	3RS ET	S
08-Jul-22	AW	2	4.940	SUMMER	32166	3RS ET	P
08-Jul-22	WL	2	8.670	SUMMER	32166	3RS ET	P
08-Jul-22	WL	3	9.126	SUMMER	32166	3RS ET	P
08-Jul-22	WL	4	1.270	SUMMER	32166	3RS ET	P
08-Jul-22	WL	2	3.690	SUMMER	32166	3RS ET	S
08-Jul-22	WL	3	3.935	SUMMER	32166	3RS ET	S
08-Jul-22	WL	4	2.300	SUMMER	32166	3RS ET	S
11-Jul-22	AW	2	5.010	SUMMER	32166	3RS ET	P
11-Jul-22	WL	2	11.940	SUMMER	32166	3RS ET	P
11-Jul-22	WL	3	5.332	SUMMER	32166	3RS ET	P
11-Jul-22	WL	2	5.710	SUMMER	32166	3RS ET	S
11-Jul-22	WL	3	4.068	SUMMER	32166	3RS ET	S
12-Jul-22	SWL	2	21.251	SUMMER	32166	3RS ET	P
12-Jul-22	SWL	3	22.070	SUMMER	32166	3RS ET	P
12-Jul-22	SWL	2	7.492	SUMMER	32166	3RS ET	S
12-Jul-22	SWL	3	5.587	SUMMER	32166	3RS ET	S
12-Jul-22	SWL	4	1.240	SUMMER	32166	3RS ET	S
13-Jul-22	SWL	2	41.213	SUMMER	32166	3RS ET	P
13-Jul-22	SWL	3	6.400	SUMMER	32166	3RS ET	P
13-Jul-22	SWL	2	13.895	SUMMER	32166	3RS ET	S
13-Jul-22	SWL	3	1.700	SUMMER	32166	3RS ET	S
15-Jul-22	NWL	2	51.300	SUMMER	32166	3RS ET	P
15-Jul-22	NWL	3	13.500	SUMMER	32166	3RS ET	P
15-Jul-22	NWL	2	9.600	SUMMER	32166	3RS ET	S

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
15-Jul-22	NWL	3	2.000	SUMMER	32166	3RS ET	S
19-Jul-22	NWL	2	34.900	SUMMER	32166	3RS ET	P
19-Jul-22	NWL	3	29.500	SUMMER	32166	3RS ET	P
19-Jul-22	NWL	2	5.700	SUMMER	32166	3RS ET	S
19-Jul-22	NWL	3	5.700	SUMMER	32166	3RS ET	S
25-Jul-22	NEL	2	32.950	SUMMER	32166	3RS ET	P
25-Jul-22	NEL	3	4.480	SUMMER	32166	3RS ET	P
25-Jul-22	NEL	2	8.410	SUMMER	32166	3RS ET	S
25-Jul-22	NEL	3	0.960	SUMMER	32166	3RS ET	S
25-Jul-22	DB	2	6.330	SUMMER	32166	3RS ET	P
25-Jul-22	DB	3	1.760	SUMMER	32166	3RS ET	P
25-Jul-22	DB	2	2.390	SUMMER	32166	3RS ET	S
25-Jul-22	DB	3	0.920	SUMMER	32166	3RS ET	S
02-Aug-22	SWL	1	1.000	SUMMER	32166	3RS ET	P
02-Aug-22	SWL	2	49.360	SUMMER	32166	3RS ET	P
02-Aug-22	SWL	1	0.900	SUMMER	32166	3RS ET	S
02-Aug-22	SWL	2	13.830	SUMMER	32166	3RS ET	S
03-Aug-22	SWL	2	37.908	SUMMER	32166	3RS ET	P
03-Aug-22	SWL	3	16.069	SUMMER	32166	3RS ET	P
03-Aug-22	SWL	2	13.392	SUMMER	32166	3RS ET	S
03-Aug-22	SWL	3	2.121	SUMMER	32166	3RS ET	S
05-Aug-22	NEL	2	32.840	SUMMER	32166	3RS ET	P
05-Aug-22	NEL	3	4.400	SUMMER	32166	3RS ET	P
05-Aug-22	NEL	2	9.760	SUMMER	32166	3RS ET	S
05-Aug-22	DB	2	6.840	SUMMER	32166	3RS ET	P
05-Aug-22	DB	3	0.920	SUMMER	32166	3RS ET	P
05-Aug-22	DB	2	4.040	SUMMER	32166	3RS ET	S
11-Aug-22	DB	2	7.580	SUMMER	32166	3RS ET	P
11-Aug-22	DB	2	4.220	SUMMER	32166	3RS ET	S
11-Aug-22	NEL	2	25.380	SUMMER	32166	3RS ET	P
11-Aug-22	NEL	3	11.030	SUMMER	32166	3RS ET	P
11-Aug-22	NEL	2	5.090	SUMMER	32166	3RS ET	S
11-Aug-22	NEL	3	5.300	SUMMER	32166	3RS ET	S
12-Aug-22	NWL	2	59.600	SUMMER	32166	3RS ET	P
12-Aug-22	NWL	3	4.100	SUMMER	32166	3RS ET	P
12-Aug-22	NWL	2	12.200	SUMMER	32166	3RS ET	S
16-Aug-22	NWL	1	2.500	SUMMER	32166	3RS ET	P
16-Aug-22	NWL	2	61.700	SUMMER	32166	3RS ET	P
16-Aug-22	NWL	1	1.000	SUMMER	32166	3RS ET	S
16-Aug-22	NWL	2	10.600	SUMMER	32166	3RS ET	S
22-Aug-22	AW	2	4.640	SUMMER	32166	3RS ET	P
22-Aug-22	WL	2	14.811	SUMMER	32166	3RS ET	P
22-Aug-22	WL	3	3.683	SUMMER	32166	3RS ET	P
22-Aug-22	WL	2	9.049	SUMMER	32166	3RS ET	S
22-Aug-22	WL	3	0.380	SUMMER	32166	3RS ET	S
23-Aug-22	WL	2	15.132	SUMMER	32166	3RS ET	P
23-Aug-22	WL	3	2.753	SUMMER	32166	3RS ET	P
23-Aug-22	WL	2	8.498	SUMMER	32166	3RS ET	S
23-Aug-22	WL	3	1.397	SUMMER	32166	3RS ET	S

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
23-Aug-22	AW	2	4.810	SUMMER	32166	3RS ET	P
05-Sep-22	NWL	2	4.260	AUTUMN	32166	3RS ET	P
05-Sep-22	NWL	3	59.410	AUTUMN	32166	3RS ET	P
05-Sep-22	NWL	3	11.830	AUTUMN	32166	3RS ET	S
06-Sep-22	SWL	2	32.266	AUTUMN	32166	3RS ET	P
06-Sep-22	SWL	3	14.290	AUTUMN	32166	3RS ET	P
06-Sep-22	SWL	4	4.930	AUTUMN	32166	3RS ET	P
06-Sep-22	SWL	2	9.989	AUTUMN	32166	3RS ET	S
06-Sep-22	SWL	3	3.100	AUTUMN	32166	3RS ET	S
06-Sep-22	SWL	4	1.060	AUTUMN	32166	3RS ET	S
08-Sep-22	NEL	2	37.420	AUTUMN	32166	3RS ET	P
08-Sep-22	NEL	2	9.580	AUTUMN	32166	3RS ET	S
08-Sep-22	DB	2	7.160	AUTUMN	32166	3RS ET	P
08-Sep-22	DB	3	0.400	AUTUMN	32166	3RS ET	P
08-Sep-22	DB	2	4.040	AUTUMN	32166	3RS ET	S
09-Sep-22	NWL	2	60.720	AUTUMN	32166	3RS ET	P
09-Sep-22	NWL	2	12.700	AUTUMN	32166	3RS ET	S
14-Sep-22	SWL	2	39.365	AUTUMN	32166	3RS ET	P
14-Sep-22	SWL	3	14.270	AUTUMN	32166	3RS ET	P
14-Sep-22	SWL	2	8.365	AUTUMN	32166	3RS ET	S
14-Sep-22	SWL	3	7.270	AUTUMN	32166	3RS ET	S
19-Sep-22	AW	2	4.810	AUTUMN	32166	3RS ET	P
19-Sep-22	WL	2	15.142	AUTUMN	32166	3RS ET	P
19-Sep-22	WL	3	4.527	AUTUMN	32166	3RS ET	P
19-Sep-22	WL	2	7.648	AUTUMN	32166	3RS ET	S
19-Sep-22	WL	3	1.973	AUTUMN	32166	3RS ET	S
20-Sep-22	AW	3	4.890	AUTUMN	32166	3RS ET	P
20-Sep-22	WL	2	9.992	AUTUMN	32166	3RS ET	P
20-Sep-22	WL	3	7.720	AUTUMN	32166	3RS ET	P
20-Sep-22	WL	4	2.060	AUTUMN	32166	3RS ET	P
20-Sep-22	WL	2	7.128	AUTUMN	32166	3RS ET	S
20-Sep-22	WL	3	3.000	AUTUMN	32166	3RS ET	S
20-Sep-22	WL	4	1.100	AUTUMN	32166	3RS ET	S
21-Sep-22	NEL	2	1.300	AUTUMN	32166	3RS ET	P
21-Sep-22	NEL	3	29.290	AUTUMN	32166	3RS ET	P
21-Sep-22	NEL	4	7.080	AUTUMN	32166	3RS ET	P
21-Sep-22	NEL	2	0.900	AUTUMN	32166	3RS ET	S
21-Sep-22	NEL	3	8.100	AUTUMN	32166	3RS ET	S
21-Sep-22	NEL	4	0.930	AUTUMN	32166	3RS ET	S
21-Sep-22	DB	2	5.110	AUTUMN	32166	3RS ET	P
21-Sep-22	DB	3	1.550	AUTUMN	32166	3RS ET	P
21-Sep-22	DB	4	0.870	AUTUMN	32166	3RS ET	P
21-Sep-22	DB	2	1.830	AUTUMN	32166	3RS ET	S
21-Sep-22	DB	3	2.040	AUTUMN	32166	3RS ET	S
03-Oct-22	AW	2	4.950	AUTUMN	32166	3RS ET	P
03-Oct-22	WL	2	13.331	AUTUMN	32166	3RS ET	P
03-Oct-22	WL	3	6.143	AUTUMN	32166	3RS ET	P
03-Oct-22	WL	2	6.235	AUTUMN	32166	3RS ET	S
03-Oct-22	WL	3	2.682	AUTUMN	32166	3RS ET	S

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
07-Oct-22	NEL	2	7.950	AUTUMN	32166	3RS ET	P
07-Oct-22	NEL	3	28.710	AUTUMN	32166	3RS ET	P
07-Oct-22	NEL	2	5.340	AUTUMN	32166	3RS ET	S
07-Oct-22	NEL	3	5.400	AUTUMN	32166	3RS ET	S
07-Oct-22	DB	2	5.900	AUTUMN	32166	3RS ET	P
07-Oct-22	DB	3	1.870	AUTUMN	32166	3RS ET	P
07-Oct-22	DB	2	3.930	AUTUMN	32166	3RS ET	S
11-Oct-22	NWL	3	51.620	AUTUMN	32166	3RS ET	P
11-Oct-22	NWL	4	12.480	AUTUMN	32166	3RS ET	P
11-Oct-22	NWL	3	11.700	AUTUMN	32166	3RS ET	S
17-Oct-22	NEL	2	3.700	AUTUMN	32166	3RS ET	P
17-Oct-22	NEL	3	29.010	AUTUMN	32166	3RS ET	P
17-Oct-22	NEL	4	4.400	AUTUMN	32166	3RS ET	P
17-Oct-22	NEL	2	2.000	AUTUMN	32166	3RS ET	S
17-Oct-22	NEL	3	5.990	AUTUMN	32166	3RS ET	S
17-Oct-22	NEL	4	1.900	AUTUMN	32166	3RS ET	S
17-Oct-22	DB	3	5.880	AUTUMN	32166	3RS ET	P
17-Oct-22	DB	4	1.750	AUTUMN	32166	3RS ET	P
17-Oct-22	DB	3	2.240	AUTUMN	32166	3RS ET	S
17-Oct-22	DB	4	1.830	AUTUMN	32166	3RS ET	S
19-Oct-22	NWL	2	3.000	AUTUMN	32166	3RS ET	P
19-Oct-22	NWL	3	55.820	AUTUMN	32166	3RS ET	P
19-Oct-22	NWL	4	4.880	AUTUMN	32166	3RS ET	P
19-Oct-22	NWL	2	1.900	AUTUMN	32166	3RS ET	S
19-Oct-22	NWL	3	9.600	AUTUMN	32166	3RS ET	S
20-Oct-22	WL	2	2.923	AUTUMN	32166	3RS ET	P
20-Oct-22	WL	3	17.160	AUTUMN	32166	3RS ET	P
20-Oct-22	WL	2	2.614	AUTUMN	32166	3RS ET	S
20-Oct-22	WL	3	7.390	AUTUMN	32166	3RS ET	S
20-Oct-22	AW	3	4.870	AUTUMN	32166	3RS ET	P
24-Oct-22	SWL	4	39.360	AUTUMN	32166	3RS ET	P
24-Oct-22	SWL	5	14.879	AUTUMN	32166	3RS ET	P
24-Oct-22	SWL	3	1.400	AUTUMN	32166	3RS ET	S
24-Oct-22	SWL	4	6.610	AUTUMN	32166	3RS ET	S
24-Oct-22	SWL	5	6.751	AUTUMN	32166	3RS ET	S
27-Oct-22	SWL	3	41.851	AUTUMN	32166	3RS ET	P
27-Oct-22	SWL	4	11.520	AUTUMN	32166	3RS ET	P
27-Oct-22	SWL	3	13.879	AUTUMN	32166	3RS ET	S
27-Oct-22	SWL	4	2.000	AUTUMN	32166	3RS ET	S
07-Nov-22	DB	2	7.390	AUTUMN	32166	3RS ET	P
07-Nov-22	DB	2	3.810	AUTUMN	32166	3RS ET	S
07-Nov-22	NEL	2	37.270	AUTUMN	32166	3RS ET	P
07-Nov-22	NEL	2	9.330	AUTUMN	32166	3RS ET	S
09-Nov-22	AW	2	4.83	AUTUMN	32166	3RS ET	P
09-Nov-22	WL	2	19.620	AUTUMN	32166	3RS ET	P
09-Nov-22	WL	2	9.450	AUTUMN	32166	3RS ET	S
10-Nov-22	SWL	2	53.970	AUTUMN	32166	3RS ET	P
10-Nov-22	SWL	2	16.030	AUTUMN	32166	3RS ET	S
11-Nov-22	NWL	2	57.080	AUTUMN	32166	3RS ET	P

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
11-Nov-22	NWL	3	1.800	AUTUMN	32166	3RS ET	P
11-Nov-22	NWL	2	16.600	AUTUMN	32166	3RS ET	S
14-Nov-22	DB	2	5.080	AUTUMN	32166	3RS ET	P
14-Nov-22	DB	3	2.490	AUTUMN	32166	3RS ET	P
14-Nov-22	DB	2	3.040	AUTUMN	32166	3RS ET	S
14-Nov-22	DB	3	0.890	AUTUMN	32166	3RS ET	S
14-Nov-22	NEL	2	37.010	AUTUMN	32166	3RS ET	P
14-Nov-22	NEL	2	9.400	AUTUMN	32166	3RS ET	S
17-Nov-22	AW	2	4.870	AUTUMN	32166	3RS ET	P
17-Nov-22	WL	2	16.517	AUTUMN	32166	3RS ET	P
17-Nov-22	WL	3	2.199	AUTUMN	32166	3RS ET	P
17-Nov-22	WL	2	9.653	AUTUMN	32166	3RS ET	S
17-Nov-22	WL	3	1.121	AUTUMN	32166	3RS ET	S
18-Nov-22	SWL	2	34.800	AUTUMN	32166	3RS ET	P
18-Nov-22	SWL	3	18.740	AUTUMN	32166	3RS ET	P
18-Nov-22	SWL	2	8.780	AUTUMN	32166	3RS ET	S
18-Nov-22	SWL	3	7.120	AUTUMN	32166	3RS ET	S
21-Nov-22	NWL	2	36.350	AUTUMN	32166	3RS ET	P
21-Nov-22	NWL	3	27.650	AUTUMN	32166	3RS ET	P
21-Nov-22	NWL	2	2.100	AUTUMN	32166	3RS ET	S
21-Nov-22	NWL	3	9.500	AUTUMN	32166	3RS ET	S
16-Dec-22	DB	2	0.360	WINTER	32166	3RS ET	P
16-Dec-22	DB	3	7.040	WINTER	32166	3RS ET	P
16-Dec-22	DB	2	1.000	WINTER	32166	3RS ET	S
16-Dec-22	DB	3	2.900	WINTER	32166	3RS ET	S
16-Dec-22	NEL	2	32.000	WINTER	32166	3RS ET	P
16-Dec-22	NEL	3	5.130	WINTER	32166	3RS ET	P
16-Dec-22	NEL	2	10.070	WINTER	32166	3RS ET	S
19-Dec-22	NEL	2	21.500	WINTER	32166	3RS ET	P
19-Dec-22	NEL	3	16.020	WINTER	32166	3RS ET	P
19-Dec-22	NEL	2	5.070	WINTER	32166	3RS ET	S
19-Dec-22	NEL	3	5.110	WINTER	32166	3RS ET	S
19-Dec-22	DB	2	5.650	WINTER	32166	3RS ET	P
19-Dec-22	DB	3	1.720	WINTER	32166	3RS ET	P
19-Dec-22	DB	2	4.430	WINTER	32166	3RS ET	S
20-Dec-22	NWL	2	5.240	WINTER	32166	3RS ET	P
20-Dec-22	NWL	3	57.300	WINTER	32166	3RS ET	P
20-Dec-22	NWL	2	1.100	WINTER	32166	3RS ET	S
20-Dec-22	NWL	3	10.600	WINTER	32166	3RS ET	S
21-Dec-22	AW	3	5.010	WINTER	32166	3RS ET	P
21-Dec-22	WL	3	8.326	WINTER	32166	3RS ET	P
21-Dec-22	WL	4	9.037	WINTER	32166	3RS ET	P
21-Dec-22	WL	5	1.900	WINTER	32166	3RS ET	P
21-Dec-22	WL	3	3.640	WINTER	32166	3RS ET	S
21-Dec-22	WL	4	7.527	WINTER	32166	3RS ET	S
22-Dec-22	SWL	3	52.578	WINTER	32166	3RS ET	P
22-Dec-22	SWL	4	1.400	WINTER	32166	3RS ET	P
22-Dec-22	SWL	2	0.850	WINTER	32166	3RS ET	S
22-Dec-22	SWL	3	14.360	WINTER	32166	3RS ET	S

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
22-Dec-22	SWL	4	1.200	WINTER	32166	3RS ET	S
28-Dec-22	SWL	2	30.360	WINTER	32166	3RS ET	P
28-Dec-22	SWL	3	22.450	WINTER	32166	3RS ET	P
28-Dec-22	SWL	2	12.320	WINTER	32166	3RS ET	S
28-Dec-22	SWL	3	2.700	WINTER	32166	3RS ET	S
29-Dec-22	AW	3	4.860	WINTER	32166	3RS ET	P
29-Dec-22	WL	3	14.870	WINTER	32166	3RS ET	P
29-Dec-22	WL	4	5.880	WINTER	32166	3RS ET	P
29-Dec-22	WL	3	9.380	WINTER	32166	3RS ET	S
29-Dec-22	WL	4	0.870	WINTER	32166	3RS ET	S
30-Dec-22	NWL	3	49.500	WINTER	32166	3RS ET	P
30-Dec-22	NWL	4	14.100	WINTER	32166	3RS ET	P
30-Dec-22	NWL	3	8.500	WINTER	32166	3RS ET	S
30-Dec-22	NWL	4	3.200	WINTER	32166	3RS ET	S

CWD Small Vessel Line-transect Survey

Sighting Data

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
03-Jan-22	1	0959	CWD	3	NWL	3	868	ON	3RS ET	22.3497	113.8684	WINTER	NONE	P
03-Jan-22	2	1039	CWD	5	NWL	2	466	ON	3RS ET	22.2726	113.8700	WINTER	GILLNETTER	P
03-Jan-22	3	1159	CWD	4	NWL	2	130	ON	3RS ET	22.3693	113.8773	WINTER	NONE	P
03-Jan-22	4	1331	CWD	2	NWL	2	563	ON	3RS ET	22.3616	113.8979	WINTER	NONE	P
05-Jan-22	1	0946	CWD	1	AW	3	262	ON	3RS ET	22.2919	113.8752	WINTER	NONE	P
05-Jan-22	2	1024	CWD	5	WL	2	430	ON	3RS ET	22.2854	113.8614	WINTER	GILLNETTER	P
05-Jan-22	3	1048	CWD	3	WL	2	789	ON	3RS ET	22.2764	113.8512	WINTER	NONE	S
05-Jan-22	4	1052	CWD	3	WL	2	173	ON	3RS ET	22.2749	113.8492	WINTER	NONE	S
05-Jan-22	5	1108	CWD	3	WL	2	295	ON	3RS ET	22.2695	113.8523	WINTER	GILLNETTER	P
05-Jan-22	6	1115	CWD	1	WL	2	8	ON	3RS ET	22.2683	113.8597	WINTER	GILLNETTER	S
05-Jan-22	7	1125	CWD	7	WL	2	178	ON	3RS ET	22.2593	113.8440	WINTER	NONE	P
05-Jan-22	8	1143	CWD	3	WL	2	155	ON	3RS ET	22.2502	113.8373	WINTER	NONE	P
05-Jan-22	9	1159	CWD	1	WL	2	304	ON	3RS ET	22.2448	113.8497	WINTER	GILLNETTER	S
05-Jan-22	10	1233	CWD	4	WL	2	74	ON	3RS ET	22.2323	113.8373	WINTER	NONE	P
05-Jan-22	11	1253	CWD	3	WL	2	215	ON	3RS ET	22.2236	113.8309	WINTER	NONE	P
05-Jan-22	12	1313	CWD	1	WL	2	240	ON	3RS ET	22.2142	113.8264	WINTER	NONE	P
05-Jan-22	13	1328	CWD	11	WL	2	598	ON	3RS ET	22.2060	113.8393	WINTER	NONE	S
10-Jan-22	1	1017	CWD	1	WL	2	63	ON	3RS ET	22.2759	113.8501	WINTER	NONE	S
10-Jan-22	2	1140	CWD	5	WL	3	331	ON	3RS ET	22.2142	113.8259	WINTER	NONE	P
10-Jan-22	3	1211	CWD	8	WL	3	103	ON	3RS ET	22.2059	113.8291	WINTER	NONE	P
13-Jan-22	1	1152	FP	1	SWL	2	40	ON	3RS ET	22.1586	113.9179	WINTER	NONE	P
13-Jan-22	2	1314	FP	3	SWL	2	261	ON	3RS ET	22.1492	113.8923	WINTER	NONE	S
13-Jan-22	3	1433	CWD	5	SWL	2	366	ON	3RS ET	22.1978	113.8685	WINTER	NONE	P
19-Jan-22	1	1337	FP	2	SWL	3	43	ON	3RS ET	22.1859	113.8977	WINTER	NONE	P
19-Jan-22	2	1453	CWD	5	SWL	3	38	ON	3RS ET	22.1827	113.8592	WINTER	NONE	P
10-Feb-22	1	1102	CWD	9	WL	3	185	ON	3RS ET	22.2418	113.8301	WINTER	NONE	P
10-Feb-22	2	1119	CWD	1	WL	3	61	ON	3RS ET	22.2316	113.8319	WINTER	NONE	P
10-Feb-22	3	1134	CWD	4	WL	3	78	ON	3RS ET	22.2236	113.8286	WINTER	NONE	P
10-Feb-22	4	1157	CWD	2	WL	3	43	ON	3RS ET	22.2146	113.8308	WINTER	NONE	P
15-Feb-22	1	0950	CWD	3	NWL	2	97	ON	3RS ET	22.3634	113.8706	WINTER	NONE	P
15-Feb-22	2	1054	CWD	2	NWL	2	50	ON	3RS ET	22.3039	113.8778	WINTER	NONE	P

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
02-Mar-22	1	1023	FP	6	SWL	1	400	ON	3RS ET	22.2167	113.9352	WINTER	NONE	P
02-Mar-22	2	1034	FP	3	SWL	1	88	ON	3RS ET	22.1947	113.9360	WINTER	NONE	P
02-Mar-22	3	1040	FP	2	SWL	1	50	ON	3RS ET	22.1843	113.9360	WINTER	NONE	P
02-Mar-22	4	1112	FP	3	SWL	1	474	ON	3RS ET	22.1693	113.9277	WINTER	NONE	P
02-Mar-22	5	1132	FP	5	SWL	1	44	ON	3RS ET	22.2034	113.9187	WINTER	NONE	S
02-Mar-22	6	1154	FP	1	SWL	2	80	ON	3RS ET	22.1584	113.9175	WINTER	NONE	P
02-Mar-22	7	1204	FP	1	SWL	2	20	ON	3RS ET	22.1413	113.9154	WINTER	NONE	S
02-Mar-22	8	1213	FP	2	SWL	2	62	ON	3RS ET	22.1522	113.9082	WINTER	NONE	P
02-Mar-22	9	1217	FP	2	SWL	2	6	ON	3RS ET	22.1543	113.9050	WINTER	NONE	S
02-Mar-22	10	1310	FP	4	SWL	1	152	ON	3RS ET	22.1701	113.8969	WINTER	NONE	P
02-Mar-22	11	1316	FP	3	SWL	2	306	ON	3RS ET	22.1590	113.8973	WINTER	NONE	P
02-Mar-22	12	1318	FP	6	SWL	2	61	ON	3RS ET	22.1573	113.8974	WINTER	NONE	P
02-Mar-22	13	1328	FP	2	SWL	2	39	ON	3RS ET	22.1495	113.8906	WINTER	NONE	S
02-Mar-22	14	1335	FP	7	SWL	2	69	ON	3RS ET	22.1588	113.8882	WINTER	NONE	P
02-Mar-22	15	1346	FP	1	SWL	1	43	ON	3RS ET	22.1646	113.8883	WINTER	NONE	P
02-Mar-22	16	1427	FP	1	SWL	2	453	ON	3RS ET	22.1757	113.8791	WINTER	NONE	P
02-Mar-22	17	1429	FP	1	SWL	2	10	ON	3RS ET	22.1729	113.8786	WINTER	NONE	P
02-Mar-22	18	1434	FP	4	SWL	2	34	ON	3RS ET	22.1668	113.8789	WINTER	NONE	P
02-Mar-22	19	1439	UNID	4	SWL	2	717	ON	3RS ET	22.1612	113.8789	WINTER	NONE	P
04-Mar-22	1	1025	FP	2	SWL	1	156	ON	3RS ET	22.2173	113.9361	WINTER	NONE	P
04-Mar-22	2	1028	FP	5	SWL	1	45	ON	3RS ET	22.2140	113.9361	WINTER	NONE	P
04-Mar-22	3	1035	FP	1	SWL	1	11	ON	3RS ET	22.2073	113.9362	WINTER	NONE	P
04-Mar-22	4	1042	FP	2	SWL	2	264	ON	3RS ET	22.1863	113.9362	WINTER	NONE	P
04-Mar-22	5	1215	FP	5	SWL	3	6	ON	3RS ET	22.1522	113.9075	WINTER	NONE	P
04-Mar-22	6	1229	FP	4	SWL	3	104	ON	3RS ET	22.1561	113.8999	WINTER	NONE	S
04-Mar-22	7	1329	FP	1	SWL	3	21	ON	3RS ET	22.1568	113.8976	WINTER	NONE	P
04-Mar-22	8	1405	FP	1	SWL	2	73	ON	3RS ET	22.2085	113.8882	WINTER	NONE	P
04-Mar-22	9	1411	FP	3	SWL	2	80	ON	3RS ET	22.2114	113.8837	WINTER	NONE	S
04-Mar-22	10	1415	FP	2	SWL	2	102	ON	3RS ET	22.2081	113.8794	WINTER	NONE	S
04-Mar-22	11	1530	CWD	1	SWL	2	262	ON	3RS ET	22.1899	113.8495	WINTER	NONE	P
08-Mar-22	1	1029	CWD	4	NWL	3	58	ON	3RS ET	22.2918	113.8698	SPRING	NONE	P
11-Mar-22	1	1033	CWD	5	WL	2	202	ON	3RS ET	22.2610	113.8455	SPRING	NONE	P
11-Mar-22	2	1106	CWD	13	WL	2	794	ON	3RS ET	22.2418	113.8348	SPRING	NONE	P

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
14-Mar-22	1	1035	FP	3	SWL	2	19	ON	3RS ET	22.2002	113.9361	SPRING	NONE	P
14-Mar-22	2	1049	FP	5	SWL	2	128	ON	3RS ET	22.1731	113.9361	SPRING	NONE	P
14-Mar-22	3	1051	FP	3	SWL	2	447	ON	3RS ET	22.1716	113.9362	SPRING	NONE	P
14-Mar-22	4	1200	FP	2	SWL	2	99	ON	3RS ET	22.1569	113.9182	SPRING	NONE	P
14-Mar-22	5	1329	FP	2	SWL	3	474	ON	3RS ET	22.1609	113.8875	SPRING	NONE	P
14-Mar-22	6	1350	CWD	1	SWL	2	831	ON	3RS ET	22.2038	113.8873	SPRING	NONE	P
15-Mar-22	1	1112	CWD	5	WL	3	64	ON	3RS ET	22.2287	113.8376	SPRING	NONE	S
15-Mar-22	2	1128	CWD	2	WL	3	147	ON	3RS ET	22.2227	113.8344	SPRING	NONE	P
15-Mar-22	3	1145	CWD	11	WL	2	127	ON	3RS ET	22.2136	113.8277	SPRING	NONE	P
15-Mar-22	4	1221	CWD	3	WL	2	710	ON	3RS ET	22.2057	113.8362	SPRING	NONE	P
15-Mar-22	5	1248	CWD	3	WL	2	223	ON	3RS ET	22.1959	113.8378	SPRING	NONE	P
18-Mar-22	1	1037	FP	1	SWL	1	98	ON	3RS ET	22.2218	113.9362	SPRING	NONE	P
18-Mar-22	2	1054	FP	4	SWL	1	161	ON	3RS ET	22.1877	113.9367	SPRING	NONE	P
18-Mar-22	3	1101	FP	7	SWL	1	55	ON	3RS ET	22.1779	113.9365	SPRING	NONE	P
18-Mar-22	4	1107	FP	2	SWL	1	134	ON	3RS ET	22.1752	113.9369	SPRING	NONE	P
18-Mar-22	5	1152	FP	3	SWL	3	153	ON	3RS ET	22.1987	113.9275	SPRING	NONE	P
18-Mar-22	6	1236	FP	5	SWL	2	133	ON	3RS ET	22.1488	113.9084	SPRING	NONE	P
18-Mar-22	7	1245	FP	6	SWL	2	5	ON	3RS ET	22.1531	113.9089	SPRING	NONE	P
18-Mar-22	8	1344	FP	8	SWL	1	75	ON	3RS ET	22.2021	113.8975	SPRING	NONE	P
18-Mar-22	9	1355	FP	4	SWL	1	191	ON	3RS ET	22.1928	113.8965	SPRING	NONE	P
18-Mar-22	10	1429	FP	4	SWL	2	6	ON	3RS ET	22.1602	113.8880	SPRING	NONE	P
18-Mar-22	11	1436	FP	1	SWL	2	222	ON	3RS ET	22.1650	113.8882	SPRING	NONE	P
18-Mar-22	12	1439	FP	3	SWL	2	182	ON	3RS ET	22.1664	113.8885	SPRING	NONE	P
18-Mar-22	13	1446	FP	3	SWL	2	8	ON	3RS ET	22.1732	113.8877	SPRING	NONE	P
18-Mar-22	14	1454	FP	1	SWL	2	204	ON	3RS ET	22.1839	113.8878	SPRING	NONE	P
18-Mar-22	15	1512	FP	3	SWL	1	6	ON	3RS ET	22.2086	113.8800	SPRING	NONE	S
18-Mar-22	16	1541	FP	1	SWL	2	71	ON	3RS ET	22.1577	113.8783	SPRING	NONE	P
18-Mar-22	17	1545	FP	1	SWL	2	39	ON	3RS ET	22.1585	113.8754	SPRING	NONE	S
18-Mar-22	18	1556	FP	1	SWL	2	46	ON	3RS ET	22.1719	113.8684	SPRING	NONE	P
06-Apr-22	1	1102	FP	2	SWL	2	114	ON	3RS ET	22.1544	113.9361	SPRING	NONE	P
06-Apr-22	2	1110	FP	1	SWL	2	24	ON	3RS ET	22.1434	113.9286	SPRING	NONE	S
06-Apr-22	3	1323	FP	2	SWL	3	385	ON	3RS ET	22.1544	113.8971	SPRING	NONE	P
06-Apr-22	4	1423	FP	4	SWL	3	4	ON	3RS ET	22.1604	113.8785	SPRING	NONE	P

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
07-Apr-22	1	1057	CWD	2	NWL	2	1080	ON	3RS ET	22.3097	113.8709	SPRING	NONE	S
07-Apr-22	2	1113	CWD	1	NWL	2	741	ON	3RS ET	22.3132	113.8695	SPRING	NONE	S
11-Apr-22	1	1043	FP	1	SWL	2	38	ON	3RS ET	22.1788	113.9359	SPRING	NONE	P
11-Apr-22	2	1112	FP	2	SWL	2	20	ON	3RS ET	22.1666	113.9277	SPRING	NONE	P
11-Apr-22	3	1212	FP	4	SWL	2	101	ON	3RS ET	22.1538	113.9075	SPRING	NONE	P
11-Apr-22	4	1315	FP	4	SWL	2	65	ON	3RS ET	22.1495	113.8975	SPRING	NONE	P
11-Apr-22	5	1318	FP	2	SWL	2	72	ON	3RS ET	22.1490	113.8956	SPRING	NONE	S
11-Apr-22	6	1403	FP	2	SWL	1	255	ON	3RS ET	22.1871	113.8777	SPRING	NONE	P
11-Apr-22	7	1407	FP	3	SWL	1	12	ON	3RS ET	22.1821	113.8777	SPRING	NONE	P
11-Apr-22	8	1409	FP	2	SWL	1	444	ON	3RS ET	22.1788	113.8782	SPRING	NONE	P
11-Apr-22	9	1417	FP	1	SWL	1	206	ON	3RS ET	22.1643	113.8781	SPRING	NONE	P
11-Apr-22	10	1425	FP	5	SWL	1	216	ON	3RS ET	22.1632	113.8686	SPRING	NONE	P
11-Apr-22	11	1428	FP	3	SWL	1	207	ON	3RS ET	22.1656	113.8687	SPRING	NONE	P
11-Apr-22	12	1436	FP	4	SWL	1	580	ON	3RS ET	22.1799	113.8684	SPRING	NONE	P
11-Apr-22	13	1455	FP	8	SWL	2	61	ON	3RS ET	22.1867	113.8586	SPRING	NONE	P
11-Apr-22	14	1501	FP	3	SWL	2	318	ON	3RS ET	22.1760	113.8590	SPRING	NONE	P
11-Apr-22	15	1514	FP	2	SWL	2	14	ON	3RS ET	22.1831	113.8492	SPRING	NONE	P
11-Apr-22	16	1519	CWD	1	SWL	2	207	ON	3RS ET	22.1914	113.8495	SPRING	NONE	P
14-Apr-22	1	1126	CWD	5	WL	3	77	ON	3RS ET	22.2320	113.8365	SPRING	NONE	P
14-Apr-22	2	1233	CWD	2	WL	3	521	ON	3RS ET	22.1968	113.8423	SPRING	NONE	P
22-Apr-22	1	1112	CWD	1	WL	2	174	ON	3RS ET	22.2325	113.8348	SPRING	NONE	P
22-Apr-22	2	1133	CWD	1	WL	2	729	ON	3RS ET	22.2289	113.8378	SPRING	NONE	S
22-Apr-22	3	1145	CWD	7	WL	2	575	ON	3RS ET	22.2242	113.8250	SPRING	NONE	P
27-Apr-22	1	1111	CWD	2	NWL	2	179	ON	3RS ET	22.3302	113.8781	SPRING	NONE	P
05-May-22	1	1014	CWD	6	WL	3	800	ON	3RS ET	22.2777	113.8513	SPRING	PURSE SEINER	S
05-May-22	2	1039	CWD	2	WL	2	91	ON	3RS ET	22.2613	113.8501	SPRING	NONE	P
05-May-22	3	1059	CWD	2	WL	2	165	ON	3RS ET	22.2579	113.8374	SPRING	NONE	S
05-May-22	4	1104	CWD	1	WL	3	192	ON	3RS ET	22.2549	113.8353	SPRING	NONE	S
05-May-22	5	1143	CWD	6	WL	3	192	ON	3RS ET	22.2241	113.8335	SPRING	PURSE SEINER	P
05-May-22	6	1201	CWD	1	WL	3	283	ON	3RS ET	22.2238	113.8234	SPRING	NONE	P
05-May-22	7	1222	CWD	1	WL	3	135	ON	3RS ET	22.2148	113.8345	SPRING	NONE	P
06-May-22	1	1036	CWD	2	WL	2	169	ON	3RS ET	22.2631	113.8562	SPRING	NONE	S
06-May-22	2	1043	CWD	1	WL	2	717	ON	3RS ET	22.2606	113.8529	SPRING	NONE	P

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
06-May-22	3	1102	CWD	8	WL	2	394	ON	3RS ET	22.2418	113.8436	SPRING	NONE	P
06-May-22	4	1139	CWD	2	WL	2	1	ON	3RS ET	22.2269	113.8376	SPRING	NONE	S
06-May-22	5	1149	CWD	5	WL	2	95	ON	3RS ET	22.2236	113.8340	SPRING	NONE	P
06-May-22	6	1201	CWD	1	WL	3	335	ON	3RS ET	22.2175	113.8195	SPRING	NONE	S
06-May-22	7	1214	CWD	5	WL	3	221	ON	3RS ET	22.2145	113.8246	SPRING	NONE	P
06-May-22	8	1231	CWD	2	WL	3	132	ON	3RS ET	22.2058	113.8358	SPRING	NONE	P
06-May-22	9	1245	CWD	6	WL	3	32	ON	3RS ET	22.1964	113.8374	SPRING	NONE	P
27-May-22	1	1101	FP	1	SWL	3	52	ON	3RS ET	22.1438	113.9277	SPRING	NONE	S
27-May-22	2	1416	CWD	12	SWL	3	582	ON	3RS ET	22.1595	113.8736	SPRING	NONE	S
30-May-22	1	1053	FP	2	SWL	2	100	ON	3RS ET	22.1613	113.9363	SPRING	NONE	P
30-May-22	2	1403	CWD	2	SWL	2	817	ON	3RS ET	22.1782	113.8783	SPRING	NONE	P
30-May-22	3	1512	CWD	1	SWL	3	779	ON	3RS ET	22.1781	113.8497	SPRING	NONE	P
30-May-22	4	1534	CWD	10	SWL	3	145	ON	3RS ET	22.1869	113.8496	SPRING	PURSE SEINER	P
13-Jun-22	1	1214	CWD	3	NWL	3	105	ON	3RS ET	22.3813	113.8885	SUMMER	NONE	P
22-Jun-22	1	1037	FP	3	SWL	2	59	ON	3RS ET	22.1877	113.9363	SUMMER	NONE	P
22-Jun-22	2	1040	FP	11	SWL	2	130	ON	3RS ET	22.1821	113.9364	SUMMER	NONE	P
22-Jun-22	3	1044	FP	2	SWL	2	79	ON	3RS ET	22.1776	113.9364	SUMMER	NONE	P
22-Jun-22	4	1058	FP	3	SWL	2	238	ON	3RS ET	22.1418	113.9330	SUMMER	NONE	S
22-Jun-22	5	1124	FP	2	SWL	2	272	ON	3RS ET	22.1928	113.9273	SUMMER	NONE	P
22-Jun-22	6	1151	FP	4	SWL	2	126	ON	3RS ET	22.1717	113.9189	SUMMER	NONE	S
22-Jun-22	7	1246	CWD	2	SWL	2	573	ON	3RS ET	22.2123	113.8992	SUMMER	NONE	S
22-Jun-22	8	1446	CWD	2	SWL	2	890	ON	3RS ET	22.1927	113.8685	SUMMER	NONE	P
22-Jun-22	9	1508	CWD	1	SWL	2	119	ON	3RS ET	22.1967	113.8588	SUMMER	NONE	P
23-Jun-22	1	1124	CWD	1	SWL	2	61	ON	3RS ET	22.2000	113.9276	SUMMER	NONE	P
23-Jun-22	2	1140	CWD	5	SWL	2	80	ON	3RS ET	22.2055	113.9218	SUMMER	NONE	S
23-Jun-22	3	1437	CWD	1	SWL	2	291	ON	3RS ET	22.1739	113.8783	SUMMER	NONE	P
23-Jun-22	4	1457	CWD	1	SWL	2	1334	ON	3RS ET	22.1603	113.8698	SUMMER	NONE	S
23-Jun-22	5	1525	CWD	18	SWL	2	253	ON	3RS ET	22.1991	113.8607	SUMMER	NONE	S
24-Jun-22	1	1140	CWD	1	WL	2	124	ON	3RS ET	22.2142	113.8296	SUMMER	NONE	P
24-Jun-22	2	1151	CWD	2	WL	2	100	ON	3RS ET	22.2141	113.8335	SUMMER	NONE	P
24-Jun-22	3	1223	CWD	2	WL	3	495	ON	3RS ET	22.1986	113.8268	SUMMER	NONE	S
24-Jun-22	4	1237	CWD	11	WL	3	114	ON	3RS ET	22.1962	113.8295	SUMMER	NONE	P
24-Jun-22	5	1316	CWD	7	SWL	3	64	ON	3RS ET	22.1935	113.8498	SUMMER	NONE	P

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
24-Jun-22	6	1341	CWD	2	SWL	3	61	ON	3RS ET	22.1743	113.8499	SUMMER	NONE	P
24-Jun-22	7	1358	CWD	9	SWL	3	526	ON	3RS ET	22.1862	113.8586	SUMMER	NONE	P
08-Jul-22	1	1100	CWD	1	WL	2	301	ON	3RS ET	22.2417	113.8435	SUMMER	NONE	P
08-Jul-22	2	1148	CWD	7	WL	3	46	ON	3RS ET	22.2152	113.8332	SUMMER	NONE	P
08-Jul-22	3	1209	CWD	3	WL	3	187	ON	3RS ET	22.2104	113.8392	SUMMER	NONE	S
08-Jul-22	4	1242	CWD	13	WL	3	747	ON	3RS ET	22.1956	113.8317	SUMMER	NONE	P
11-Jul-22	1	1037	CWD	5	WL	2	1040	ON	3RS ET	22.2603	113.8451	SUMMER	NONE	P
11-Jul-22	2	1135	CWD	6	WL	3	198	ON	3RS ET	22.2147	113.8204	SUMMER	NONE	S
11-Jul-22	3	1225	CWD	1	WL	3	48	ON	3RS ET	22.1964	113.8289	SUMMER	NONE	S
11-Jul-22	4	1258	CWD	5	WL	3	69	ON	3RS ET	22.1868	113.8383	SUMMER	NONE	P
12-Jul-22	1	1019	CWD	1	SWL	2	78	ON	3RS ET	22.2218	113.9360	SUMMER	PURSE SEINER	P
12-Jul-22	2	1034	CWD	4	SWL	2	2058	ON	3RS ET	22.2081	113.9362	SUMMER	PURSE SEINER	P
12-Jul-22	3	1157	CWD	5	SWL	2	155	ON	3RS ET	22.1945	113.9275	SUMMER	NONE	P
12-Jul-22	4	1220	CWD	3	SWL	2	161	ON	3RS ET	22.2054	113.9230	SUMMER	NONE	S
12-Jul-22	5	1241	CWD	1	SWL	2	N/A	OFF	3RS ET	22.2019	113.9177	SUMMER	NONE	P
12-Jul-22	6	1245	CWD	1	SWL	2	188	ON	3RS ET	22.1950	113.9180	SUMMER	NONE	P
12-Jul-22	7	1345	CWD	1	SWL	2	162	ON	3RS ET	22.1780	113.9049	SUMMER	NONE	S
12-Jul-22	8	1354	CWD	3	SWL	3	1211	ON	3RS ET	22.1789	113.9044	SUMMER	NONE	S
12-Jul-22	9	1425	CWD	1	SWL	2	131	ON	3RS ET	22.1976	113.8969	SUMMER	NONE	P
12-Jul-22	10	1440	CWD	1	SWL	2	48	ON	3RS ET	22.1891	113.8969	SUMMER	NONE	P
12-Jul-22	11	1518	CWD	1	SWL	3	173	ON	3RS ET	22.1612	113.8877	SUMMER	NONE	P
12-Jul-22	12	1537	CWD	3	SWL	3	136	ON	3RS ET	22.1871	113.8872	SUMMER	NONE	P
12-Jul-22	13	1604	CWD	2	SWL	2	809	ON	3RS ET	22.2025	113.8780	SUMMER	NONE	P
12-Jul-22	14	1626	CWD	1	SWL	2	255	ON	3RS ET	22.1867	113.8786	SUMMER	NONE	P
12-Jul-22	15	1650	CWD	1	SWL	3	193	ON	3RS ET	22.1642	113.8686	SUMMER	NONE	P
12-Jul-22	16	1705	CWD	1	SWL	3	29	ON	3RS ET	22.1702	113.8686	SUMMER	NONE	P
13-Jul-22	1	1037	FP	3	SWL	2	308	ON	3RS ET	22.1938	113.9367	SUMMER	NONE	P
13-Jul-22	2	1113	FP	4	SWL	2	93	ON	3RS ET	22.1658	113.9276	SUMMER	NONE	P
13-Jul-22	3	1231	CWD	1	SWL	2	141	ON	3RS ET	22.1811	113.9037	SUMMER	NONE	S
13-Jul-22	4	1254	CWD	5	SWL	2	216	ON	3RS ET	22.1973	113.9083	SUMMER	PURSE SEINER	P
13-Jul-22	5	1332	CWD	1	SWL	2	173	ON	3RS ET	22.1813	113.8982	SUMMER	NONE	P
13-Jul-22	6	1350	CWD	4	SWL	2	402	ON	3RS ET	22.1746	113.8972	SUMMER	NONE	P
13-Jul-22	7	1445	CWD	2	SWL	2	161	ON	3RS ET	22.1859	113.8879	SUMMER	NONE	P

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
13-Jul-22	8	1547	CWD	2	SWL	2	52	ON	3RS ET	22.1617	113.8699	SUMMER	NONE	S
13-Jul-22	9	1610	CWD	1	SWL	2	277	ON	3RS ET	22.1933	113.8677	SUMMER	NONE	P
13-Jul-22	10	1651	CWD	1	SWL	2	89	ON	3RS ET	22.1874	113.8492	SUMMER	NONE	P
02-Aug-22	1	1432	CWD	2	SWL	2	59	ON	3RS ET	22.1841	113.8680	SUMMER	NONE	P
02-Aug-22	2	1507	CWD	15	SWL	2	80	ON	3RS ET	22.1795	113.8497	SUMMER	PURSE SEINER	P
03-Aug-22	1	1311	FP	1	SWL	3	61	ON	3RS ET	22.1528	113.8974	SUMMER	NONE	P
03-Aug-22	2	1433	CWD	4	SWL	2	194	ON	3RS ET	22.1988	113.8683	SUMMER	NONE	P
03-Aug-22	3	1522	CWD	1	SWL	2	21	ON	3RS ET	22.1893	113.8493	SUMMER	NONE	P
22-Aug-22	1	1039	CWD	1	WL	2	42	ON	3RS ET	22.2615	113.8551	SUMMER	NONE	S
22-Aug-22	2	1125	CWD	3	WL	2	345	ON	3RS ET	22.2418	113.8320	SUMMER	NONE	P
22-Aug-22	3	1136	CWD	1	WL	2	10	ON	3RS ET	22.2418	113.8295	SUMMER	NONE	P
22-Aug-22	4	1212	CWD	4	WL	2	19	ON	3RS ET	22.2144	113.8309	SUMMER	NONE	P
22-Aug-22	5	1246	CWD	3	WL	2	313	ON	3RS ET	22.2007	113.8245	SUMMER	NONE	S
22-Aug-22	6	1312	CWD	1	WL	3	11	ON	3RS ET	22.1869	113.8327	SUMMER	NONE	P
23-Aug-22	1	1118	CWD	3	WL	2	98	ON	3RS ET	22.2326	113.8360	SUMMER	NONE	P
23-Aug-22	2	1141	CWD	8	WL	2	416	ON	3RS ET	22.2226	113.8353	SUMMER	NONE	P
23-Aug-22	3	1206	CWD	1	WL	2	40	ON	3RS ET	22.2141	113.8262	SUMMER	NONE	P
23-Aug-22	4	1226	CWD	1	WL	2	1368	ON	3RS ET	22.2059	113.8236	SUMMER	NONE	P
23-Aug-22	5	1242	CWD	9	WL	2	363	ON	3RS ET	22.1956	113.8350	SUMMER	NONE	P
23-Aug-22	6	1317	CWD	9	WL	3	251	ON	3RS ET	22.1873	113.8356	SUMMER	NONE	P
06-Sep-22	1	1028	FP	3	SWL	2	143	ON	3RS ET	22.2171	113.9358	AUTUMN	NONE	P
06-Sep-22	2	1036	FP	2	SWL	2	275	ON	3RS ET	22.2029	113.9361	AUTUMN	NONE	P
06-Sep-22	3	1039	FP	5	SWL	2	370	ON	3RS ET	22.1981	113.9363	AUTUMN	NONE	P
06-Sep-22	4	1046	FP	14	SWL	2	235	ON	3RS ET	22.1842	113.9364	AUTUMN	NONE	P
06-Sep-22	5	1048	FP	5	SWL	2	157	ON	3RS ET	22.1828	113.9364	AUTUMN	NONE	P
06-Sep-22	6	1056	FP	1	SWL	2	147	ON	3RS ET	22.1686	113.9358	AUTUMN	NONE	P
06-Sep-22	7	1100	FP	2	SWL	2	137	ON	3RS ET	22.1624	113.9360	AUTUMN	NONE	P
06-Sep-22	8	1103	FP	3	SWL	2	22	ON	3RS ET	22.1594	113.9357	AUTUMN	NONE	P
06-Sep-22	9	1120	CWD	2	SWL	2	113	ON	3RS ET	22.1563	113.9275	AUTUMN	NONE	P
06-Sep-22	10	1135	FP	9	SWL	2	32	ON	3RS ET	22.1707	113.9277	AUTUMN	NONE	P
06-Sep-22	11	1137	FP	12	SWL	2	551	ON	3RS ET	22.1725	113.9287	AUTUMN	NONE	P
06-Sep-22	12	1158	CWD	4	SWL	2	1022	ON	3RS ET	22.2000	113.9173	AUTUMN	NONE	P
06-Sep-22	13	1225	FP	1	SWL	2	72	ON	3RS ET	22.1715	113.9190	AUTUMN	NONE	P

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
06-Sep-22	14	1248	FP	3	SWL	2	127	ON	3RS ET	22.1508	113.9081	AUTUMN	NONE	P
06-Sep-22	15	1309	CWD	6	SWL	2	741	ON	3RS ET	22.1637	113.9039	AUTUMN	NONE	S
06-Sep-22	16	1431	CWD	1	SWL	2	114	ON	3RS ET	22.1980	113.8879	AUTUMN	NONE	P
09-Sep-22	1	0952	CWD	1	NWL	2	569	ON	3RS ET	22.3771	113.8701	AUTUMN	NONE	P
09-Sep-22	2	1205	CWD	2	NWL	2	1048	ON	3RS ET	22.3862	113.8881	AUTUMN	NONE	P
14-Sep-22	1	1056	FP	5	SWL	2	270	ON	3RS ET	22.1846	113.9354	AUTUMN	NONE	P
14-Sep-22	2	1110	FP	2	SWL	2	179	ON	3RS ET	22.1548	113.9356	AUTUMN	NONE	P
14-Sep-22	3	1126	FP	1	SWL	2	125	ON	3RS ET	22.1641	113.9281	AUTUMN	NONE	P
14-Sep-22	4	1152	FP	2	SWL	2	111	ON	3RS ET	22.1946	113.9177	AUTUMN	NONE	P
14-Sep-22	5	1227	FP	3	SWL	3	5	ON	3RS ET	22.1541	113.9063	AUTUMN	NONE	P
19-Sep-22	1	1043	CWD	4	WL	2	233	ON	3RS ET	22.2606	113.8419	AUTUMN	NONE	P
19-Sep-22	2	1157	CWD	5	WL	3	386	ON	3RS ET	22.2045	113.8357	AUTUMN	NONE	P
19-Sep-22	3	1230	CWD	5	WL	3	308	ON	3RS ET	22.1957	113.8343	AUTUMN	NONE	P
20-Sep-22	1	1054	CWD	2	WL	2	505	ON	3RS ET	22.2502	113.8471	AUTUMN	NONE	P
03-Oct-22	1	1052	CWD	1	WL	2	1260	ON	3RS ET	22.2556	113.8359	AUTUMN	NONE	S
03-Oct-22	2	1114	CWD	2	WL	2	1016	ON	3RS ET	22.2418	113.8335	AUTUMN	NONE	P
03-Oct-22	3	1125	CWD	3	WL	2	91	ON	3RS ET	22.2374	113.8260	AUTUMN	NONE	S
03-Oct-22	4	1130	CWD	5	WL	2	497	ON	3RS ET	22.2356	113.8262	AUTUMN	NONE	S
03-Oct-22	5	1210	CWD	3	WL	3	16	ON	3RS ET	22.2214	113.8202	AUTUMN	NONE	S
03-Oct-22	6	1236	CWD	6	WL	2	838	ON	3RS ET	22.2058	113.8297	AUTUMN	NONE	P
03-Oct-22	7	1300	CWD	4	WL	3	98	ON	3RS ET	22.2036	113.8226	AUTUMN	NONE	S
03-Oct-22	8	1323	CWD	2	WL	3	450	ON	3RS ET	22.1879	113.8359	AUTUMN	NONE	P
20-Oct-22	1	1054	CWD	2	WL	3	210	ON	3RS ET	22.2417	113.8383	AUTUMN	NONE	P
20-Oct-22	2	1124	CWD	5	WL	3	411	ON	3RS ET	22.2326	113.8370	AUTUMN	NONE	P
20-Oct-22	3	1200	CWD	3	WL	2	266	ON	3RS ET	22.2263	113.8373	AUTUMN	NONE	S
24-Oct-22	1	1150	FP	1	SWL	5	172	ON	3RS ET	22.1787	113.9215	AUTUMN	NONE	S
27-Oct-22	1	1151	FP	2	SWL	3	137	ON	3RS ET	22.1780	113.9211	AUTUMN	NONE	S
27-Oct-22	2	1210	FP	1	SWL	3	427	ON	3RS ET	22.1428	113.9146	AUTUMN	NONE	S
27-Oct-22	3	1403	CWD	1	SWL	3	7	ON	3RS ET	22.1909	113.8781	AUTUMN	NONE	P
09-Nov-22	1	1001	CWD	2	WL	2	189	ON	3RS ET	22.2992	113.8612	AUTUMN	NONE	P
09-Nov-22	2	1138	CWD	1	WL	2	139	ON	3RS ET	22.2239	113.8248	AUTUMN	NONE	P
09-Nov-22	3	1209	CWD	3	WL	2	84	ON	3RS ET	22.2026	113.8231	AUTUMN	NONE	S
09-Nov-22	4	1235	CWD	1	WL	2	760	ON	3RS ET	22.1873	113.8394	AUTUMN	NONE	P

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
10-Nov-22	1	1338	FP	1	SWL	2	2	ON	3RS ET	22.1833	113.8877	AUTUMN	NONE	P
11-Nov-22	1	0947	CWD	1	NWL	2	222	ON	3RS ET	22.3847	113.8707	AUTUMN	NONE	P
17-Nov-22	1	1031	CWD	7	WL	2	188	ON	3RS ET	22.2612	113.8457	AUTUMN	NONE	P
17-Nov-22	2	1119	CWD	2	WL	2	18	ON	3RS ET	22.2318	113.8288	AUTUMN	NONE	P
17-Nov-22	3	1141	CWD	1	WL	2	50	ON	3RS ET	22.2235	113.8297	AUTUMN	NONE	P
17-Nov-22	4	1202	CWD	2	WL	2	110	ON	3RS ET	22.2147	113.8255	AUTUMN	NONE	P
17-Nov-22	5	1234	CWD	1	WL	2	83	ON	3RS ET	22.2048	113.8332	AUTUMN	NONE	P
17-Nov-22	6	1300	CWD	2	WL	3	145	ON	3RS ET	22.1960	113.8392	AUTUMN	NONE	P
18-Nov-22	1	1034	FP	1	SWL	2	66	ON	3RS ET	22.1727	113.9360	AUTUMN	NONE	P
18-Nov-22	2	1100	FP	1	SWL	2	43	ON	3RS ET	22.1705	113.9277	AUTUMN	NONE	P
18-Nov-22	3	1159	FP	4	SWL	3	13	ON	3RS ET	22.1544	113.9048	AUTUMN	NONE	S
18-Nov-22	4	1451	CWD	2	SWL	3	665	ON	3RS ET	22.1914	113.8488	AUTUMN	NONE	P
20-Dec-22	1	0949	CWD	2	NWL	2	31	ON	3RS ET	22.3730	113.8705	WINTER	NONE	P
21-Dec-22	1	1136	CWD	2	WL	4	405	ON	3RS ET	22.2053	113.8389	WINTER	NONE	P
21-Dec-22	2	1205	CWD	7	WL	4	53	ON	3RS ET	22.1961	113.8409	WINTER	NONE	P
21-Dec-22	3	1218	CWD	1	WL	3	45	ON	3RS ET	22.1873	113.8408	WINTER	NONE	P
22-Dec-22	1	1038	FP	2	SWL	3	34	ON	3RS ET	22.1817	113.9362	WINTER	NONE	P
22-Dec-22	2	1042	FP	1	SWL	3	307	ON	3RS ET	22.1775	113.9358	WINTER	NONE	P
22-Dec-22	3	1116	FP	2	SWL	3	68	ON	3RS ET	22.1798	113.9280	WINTER	NONE	P
22-Dec-22	4	1152	FP	1	SWL	3	75	ON	3RS ET	22.1596	113.9180	WINTER	NONE	P
22-Dec-22	5	1231	FP	1	SWL	3	361	ON	3RS ET	22.1901	113.9062	WINTER	NONE	S
28-Dec-22	1	1314	CWD	3	SWL	2	707	ON	3RS ET	22.1687	113.8874	WINTER	GILLNETTER	P
28-Dec-22	2	1355	CWD	5	SWL	2	235	ON	3RS ET	22.1818	113.8788	WINTER	GILLNETTER	P
28-Dec-22	3	1501	CWD	2	SWL	3	137	ON	3RS ET	22.1716	113.8534	WINTER	NONE	S
29-Dec-22	1	1051	CWD	6	WL	3	11	ON	3RS ET	22.2417	113.8427	WINTER	NONE	P

Abbreviations: STG# = Sighting Number; GP SZ = Dolphin Group Size; BEAU = Beaufort Sea State; PSD = Perpendicular Distance (in metres); N/A = Not Applicable; DEC LAT = Latitude (WGS84 in Decimal), DEC LON = Longitude (WGS84 in Decimal); BOAT ASSOC. = Fishing Boat Association

CWD Small Vessel Line-transect Survey

Photo Identification – Residency Pattern of Selected Dolphin Individuals

ID	Residency	2015	2016	2017	2018	2019				2020				2021				2022				#STG		
						SP	SU	AU	WI	SP	SU	AU	WI	SP	SU	AU	WI	SP	SU	AU	WI			
NLMM002	SR		8	2	4				1														15	
NLMM004	SR		4	7	7	1		4	1				2											26
NLMM006	SR		10	1	5	2		1	1															20
NLMM009	SR		3	6	5		1		1		2				4		3		1					26
NLMM013	SR		10	2	7	2		2	1		1				3	1				1	1			31
NLMM015	SR		1	3	5			2			2	1			7				2	1				24
NLMM016	SR		1	5	2	3		1	2								1		1		1			17
NLMM019	SR		4	7	2		1	3	2		1													20
NLMM020	SR		2	7	2			2	2		1				1		1							18
NLMM023	SR		2	5	6			1				2			1		3			1				21
NLMM063	SR				9	1	2	1	2		3				2		1		1		1			23
SLMM002	SR	1	6	1	3	2		1	2	4		1						3	4	3				31
SLMM003	YR	1	3	1	9	1	2	4	1	3	2	4	7	2	3	4	1	4	1					53
SLMM007	SR	1	4	3	4		1	2	2	2	2	2	3	1		3	2	1		1	5			39
SLMM010	YR	1	9	5	6		1	1	3	1	2	5	1	2	4	2	1	3			1			48
SLMM011	SV		7	6			1	1	1	2														18
SLMM012	SR	1	3	2	4		2	2	3	2	1	3	3		3	1	4	5	2		1			42
SLMM014	YR		8	11	7	1	1	1	1	4	4	1	3	2	2	3	6		5	2				62
SLMM022	SR		7	3	2	1	1	3				1	2			1	1							22
SLMM023	SR		2	7	2	1				3		3	2		1	1	1		1	3	1			28
SLMM025	SR		1	1	1		2	1		1	4	2				1	2	4	1	1				22
SLMM027	SR		1	3	5			1			1		1		1	1	1	1	1					17
SLMM028	SR		5	5	6		2	2		2	2													24
SLMM030	SR		4	6	3	2				2				1		1	1					1		21
SLMM031	SR		4	5	2		1	1		4		1	2	1		1	3			1	1			27
SLMM034	SR		3	2	4	3				5				1	1				1					20
SLMM037	YR		3	4	2		3	2		2	1	3	6	4	4	3	4	2	5	3	2			53

ID	Residency	2015	2016	2017	2018	2019				2020				2021				2022				#STG
						SP	SU	AU	WI	SP	SU	AU	WI	SP	SU	AU	WI	SP	SU	AU	WI	
WLMM079	YR			5	5	1	5	3	1		3	5	1	1	1	4	1	3	2		1	42
WLMM114	YR				6	1		1		4	2	3	3	1	3	2	3	3		2	2	36
WLMM131	YR				1	1	4	1		2	4	1	1	2	2	2	3		3	3	1	31

* Residency: YR = Year-round Resident; SR = Seasonal Resident; SV = Seasonal Visitor

Seasons: AU = Autumn; SP = Spring; SU = Summer; WI = Winter,

#STG = Total number of sightings

CWD Land-based Theodolite Tracking

CWD Groups by Survey Date

Date	Station	Start Time	End Time	Duration	Beaufort Range	Visibility Range	No. of Focal Follow Dolphin Groups Tracked	Group Size Range
17/Jan/22	Sha Chau	10:42	16:42	6:00	2	3	0	-
24/Jan/22	Lung Kwu Chau	9:28	15:28	6:00	2	3-4	0	-
11/Feb/22	Lung Kwu Chau	8:51	14:51	6:00	2	3-4	1	1
16/Feb/22	Sha Chau	10:35	16:35	6:00	2-4	2	0	-
18-Mar-22	Lung Kwu Chau	09:11	14:11	6:00	2	4	0	-
31-Mar-22	Sha Chau	10:50	16:50	6:00	2	2	0	-
21-Apr-22	Sha Chau	10:50	16:50	6:00	2	3	0	-
20-Apr-22	Lung Kwu Chau	08:50	14:50	6:00	2	3	0	-
19/May/22	Lung Kwu Chau	8:45	14:45	6:00	2	1	0	-
25/May/22	Sha Chau	10:44	16:44	6:00	2	2	0	-
22/Jun/22	Lung Kwu Chau	8:51	14:51	6:00	1-2	3	0	-
24/Jun/22	Sha Chau	10:45	16:45	6:00	2	2	0	-
18/Jul/22	Lung Kwu Chau	8:55	14:55	6:00	2-3	2	0	-
19/Jul/22	Sha Chau	10:40	16:40	6:00	3	2	0	-
22/Aug/22	Sha Chau	10:59	16:59	6:00	2-3	2	0	-
29/Aug/02	Lung Kwu Chau	8:48	14:48	6:00	2	3	0	-

Date	Station	Start Time	End Time	Duration	Beaufort Range	Visibility Range	No. of Focal Follow Dolphin Groups Tracked	Group Size Range
16/Sep/22	Lung Kwu Chau	9:00	14:00	6:00	2	4	0	-
21/Sep/22	Sha Chau	10:35	16:35	6:00	2-3	2-3	0	-
17/Oct/22	Lung Kwu Chau	09:01	15:01	6:00	3	3	0	-
27/Oct/22	Sha Chau	10:41	16:41	6:00	2	3	0	-
15/Nov/22	Sha Chau	10:30	16:30	6:00	2-3	3-4	0	-
28/Nov/22	Lung Kwu Chau	08:58	14:58	6:00	2-3	2-3	4	1-5
15/Dec/22	Sha Chau	10:37	16:37	6:00	3	3	0	-
19/Dec/22	Lung Kwu Chau	08:52	14:52	6:00	2-3	2	0	-

Visibility Range: 1=Excellent, 2=Good, 3=Fair, 4=Poor

Annex 1 List of References

CWD Monitoring:

- Buckland, S. T., D. R. Anderson, K. P. Burnham, J. L. Laake, D. L. Borchers and L. Thomas. 2001. Introduction to Distance Sampling: Estimating Abundance of Biological Populations. Oxford University Press.
- Buckland, S. T., D. R. Anderson, K. P. Burnham, J. L. Laake, D. L. Borchers and L. Thomas. 2004. Advanced Distance Sampling. Oxford University Press.
- Buckstaff, K.C., Wells, R.S., Gannon, J.G., Nowacek, D.P. 2013. Responses of bottlenose dolphins (*Tursiops truncatus*) to construction and demolition of coastal marine structures. *Aquat. Mamm.* 39, 174-186. (doi: 10.1578/AM.39.2.2013.174)
- Castellote, M., Clark, C.W., Lammers, M.O. 2012. Acoustic and behavioral changes by fin whales (*Balaenoptera physalus*) in response to shipping and airgun noise. *Biol. Conserv.* 147, 115-122. (doi:10.1016/j.biocon.2011.12.021)
- Chen, T., Hung, S.K., Qiu, Y., Jia, X. & Jefferson, T.A. 2010. Distribution, abundance, and individual movements of Indo-Pacific humpback dolphins (*Sousa chinensis*) in the Pearl River Estuary, China. *Mammalia*, 74, 117-125.
- Chilvers, B. L., P. J. Corkeron and M. L. Puotinen. 2003. Influence of trawling on the behaviour and spatial distribution of Indo-Pacific bottlenose dolphins (*Tursiops aduncus*) in Moreton Bay, Australia. *Canadian Journal of Zoology* 81:1947-1955.
- Finneran, J.J., Schlundt, C.E., Branstetter, B.K., Trickey, J.S., Bowman, V., Jenkins, K. 2015. Effects of multiple impulses from a seismic air gun on bottlenose dolphin hearing and behavior. *J. Acoust. Soc. Amer.* 137, 1634-1646. (doi: <http://dx.doi.org/10.1121/1.4916591>)
- Gailey, G. & Ortega-Ortiz, J.G. 2002. A note on a computer-based system for theodolite tracking of cetaceans. *Journal of Cetacean Research and Management*, 4, 213-218.
- Gailey, G., Würsig, B. & McDonald, T.L. 2007. Abundance, behavior, and movement patterns of western gray whales in relation to a 3-D seismic survey, Northeast Sakhalin Island, Russia. *Environmental Monitoring and Assessment*, 134, 75-91.
- Hastie T., Tibshirani R. 1986. Generalized additive models. *Statistical Science*:297-310.
- Hoyt, E. 2011. *Marine Protected Areas for Whales, Dolphins, and Porpoises*, Second Edition. Earthscan Press, London, UK. 464 pp.
- Huang, S., Karczmarski, L., Chen, J., Zhou, R., Wen, L., Zhang, H., Li, H. & Wu, Y. 2012. Demography and population trends of the largest population of Indo-Pacific humpback dolphins. *Biological Conservation*, 147:234-242.
- Hung, S.K. 2008. *Habitat use of Indo-Pacific humpback dolphins (Sousa chinensis) in Hong Kong*. Ph.D. dissertation. University of Hong Kong, Hong Kong, 266 p.
- Hung, S.K. 2016. *Monitoring of Marine Mammals in Hong Kong Waters (2015 – 2016) Final Report (1 April 2015 to 31 March 2016)*. Agriculture, Fisheries and Conservation Department of the Hong Kong SAR Government.
- Jefferson, T.A. 2000. Population biology of the Indo-Pacific hump-backed dolphin in Hong Kong waters. *Wildlife Monographs*, 144, 65 pp.

Jefferson, T.A. 2018. Hong Kong's Indo-Pacific humpback dolphins (*Sousa chinensis*): Assessing past and future anthropogenic impacts and working toward sustainability. *Aquatic Mammals* 44:711-728.

Jefferson, T.A. and S. Leatherwood. 1997. Distribution and abundance of Indo-Pacific hump-backed dolphins (*Sousa chinensis* Osbeck, 1765) in Hong Kong waters. *Asian Marine Biology* 14:93-110.

Lammers, M.O., Brainard, R.E., Au, W.W.L., Mooney, T.A. & Wong, K.B. 2008. An ecological acoustic recorder (EAR) for long-term monitoring of biological and anthropogenic sounds on coral reefs and other marine habitats. *Journal of the Acoustical Society of America*, 123, 1720-1728.

Lundquist, D., Gemmell, N.J. & Würsig, B. 2012. Behavioural responses of dusky dolphin groups (*Lagenorhynchus obscurus*) to tour vessels off Kaikoura, New Zealand. *PLoS ONE*, 7, 9pp.

Lusseau, D. 2006. The short-term behavioral reactions of bottlenose dolphins to interactions with boats in Doubtful Sound, New Zealand. *Marine Mammal Science*, 22(4), 802-818.

Marques, F. F. C. and S. T. Buckland. 2003. Incorporating covariates into standard line transect analyses. *Biometrics* 59:924-935.

Marques, F. F. C. and S. T. Buckland. 2004. Covariate models for the detection function. Pages 31-47 in S. T. Buckland, D. R. Anderson, K. P. Burnham, J. L. Laake, D. L. Borchers and L. Thomas, eds. *Advanced Distance Sampling*. Oxford University Press.

Mott MacDonald. 2014. Expansion of Hong Kong International Airport into a Three-Runway System Environmental Impact Assessment Report. The Airport Authority Hong Kong, Hong Kong.

Munger, L., Lammers, M.O., Cifuentes, M., Würsig, B., Jefferson, T.A. & Hung, S.K. 2016. Indo-Pacific humpback dolphin occurrence north of Lantau Island, Hong Kong, based on year-round passive acoustic monitoring. *Journal of the Acoustical Society of America*, 140, 2754–2765.

Mott MacDonald 2014. Expansion of Hong Kong International Airport into a Three-Runway System. Environmental Impact Assessment Report. Final report to the Hong Kong SAR Government.

Mott MacDonald 2019. Chinese White Dolphin Monitoring Annual Review Report – January 2018 to December 2018. Final report to the Hong Kong SAR Government.

Nowacek, D.P., Thorne, L.H., Johnston, D.W., Tyack, P.L. 2007. Responses of cetaceans to anthropogenic noise. *Mamm. Rev.* 372, 81-115. (doi: 10.1111/j.1365-2907.2007.00104.x)

Piwetz, S., Hung, S., Wang, J., Lundquist, D. & Würsig, B. 2012. Influence of vessel traffic on movements of Indo-Pacific Humpback dolphins (*Sousa chinensis*) off Lantau Island, Hong Kong. *Aquatic Mammals*, 38, 325-331.

Quinn, G. P., & Keough, M. J. 2002. Experimental design and data analysis for biologists. Cambridge University Press.

Rolland, R.M., Parks, S.E., Hunt, K.E., Castellote, M., Corkeron, P.J., Nowacek, D.P., Wasser, S.K., and Kraus, S.D. 2012. Evidence that ship noise increases stress in right whales. *Proc. R. Soc. B* 279, 2363-2368. (doi: 10.1098/rspb.2011.2429)

Sims, P.Q., Vaughn, R., Hung, S.K. & Würsig, B. 2012a. Sounds of Indo-Pacific humpback dolphins (*Sousa chinensis*) in West Hong Kong: A preliminary description. *J. Acoust. Soc. Am.* 131: EL48-EL53.

Sims, P.Q., Hung, S.K. & Würsig, B. 2012b. High-speed vessel noises in West Hong Kong waters and their contributions relative to Indo-Pacific humpback dolphins (*Sousa chinensis*). *Journal of Marine Biology*, 2012, 11 pp.

Thomas, L., S. T. Buckland, E. A. Rexstad, J. L. Laake, S. Strindberg, S. L. Hedley, J. R. B. Bishop, T. A. Marques and K. P. Burnham. 2010. Distance software: design and analysis of distance sampling surveys for estimating population size. *Journal of Applied Ecology* 47:5-14.

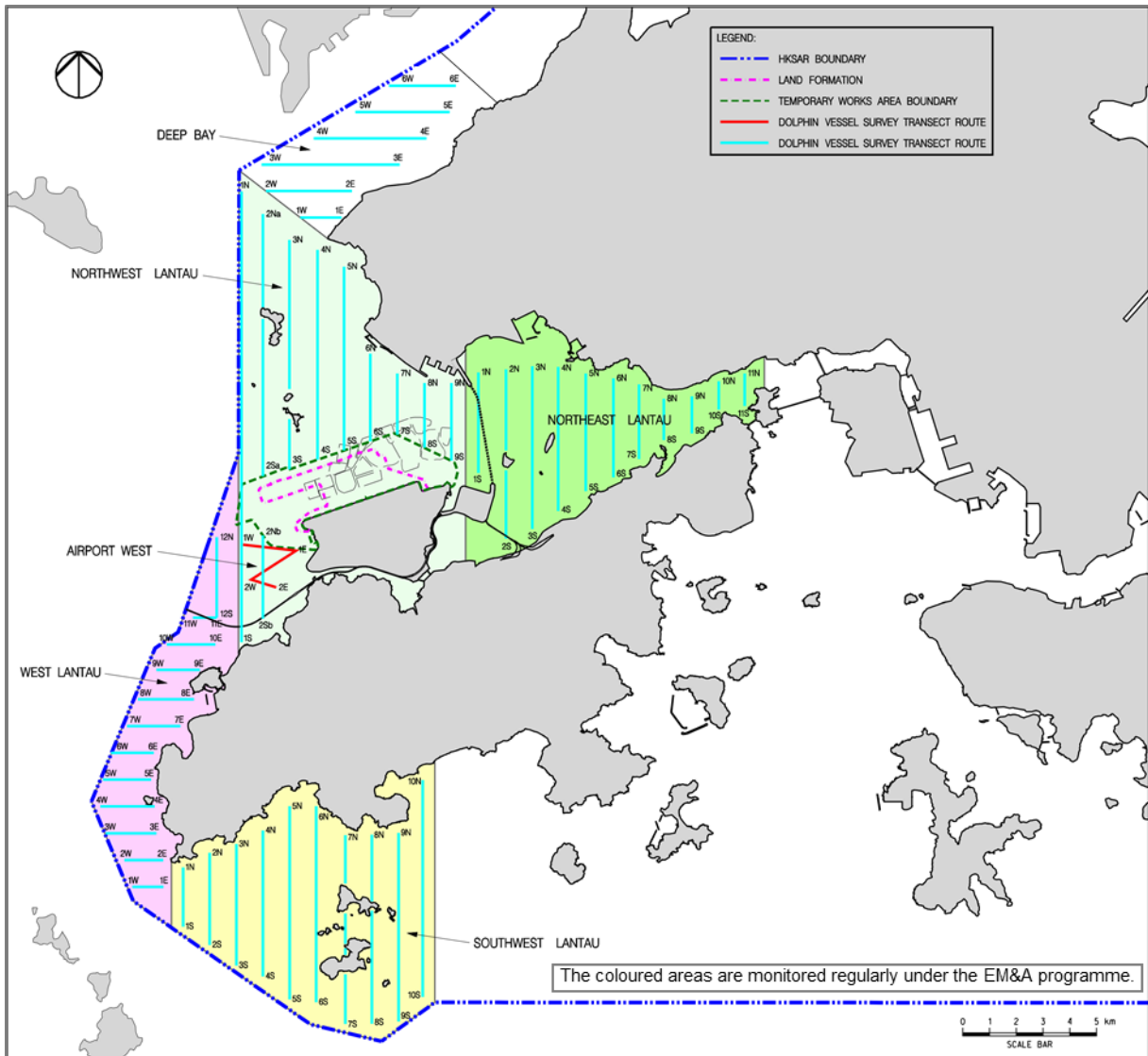
Turchin, P. 1998. *Quantitative Analysis of Movement: Measuring and modelling population redistribution in animals and plants*. Sinauer Associates, Inc., U.S.A.

Wiggins, S.M. & Hildebrand, J. 2007. High-frequency Acoustic Recording Package (HARP) for broadband, long-term marine mammal monitoring. In: *Symposium on Underwater Technology and Workshop on Scientific Use of Submarine Cables and Related Technologies* (ed. by Anonymous), pp. 551-557.

Wood S. 2006. *Generalized additive models: an introduction with R* CRC press.

Würsig, B., Cipriano, F. & Würsig, M. 1991. Dolphin movement patterns: information from radio and theodolite tracking studies. In: *Dolphin societies: Discoveries and puzzles* (ed. by K. Pryor & K.S. Norris), pp. 79-111. University of California Press.

Reference: Additional Vessel Survey for CWD Monitoring in Deep Bay Area



The additional survey in Deep Bay (DB) was conducted on a voluntary basis at the same frequency of two surveys per month.

All DB data were for reference and used only for density and abundance estimation.

(Note: The transect route in the DB survey area could not be fully travelled due to obstruction by the existing oyster culture rafts.)