

Table S1. Variables derived from data sources and considered for use in developing the GAMs.

Field Code	Field Name	Explanation
SrvyArea	Survey Area	Name of survey area (i.e., Deep Bay, North Lantau, West Lantau, or Southwest Lantau)
Year	Year	Year of study
Month	Month	Month of study
Season	Season	Solar season: Winter (Dec-Feb), Spring (Mar-May), Summer (Jun-Aug), or Autumn (Sep-Nov)
Rainfall	Rainfall	Amount of rainfall in all of Hong Kong for that month (mm)
AnlPRDscg	Annual Pearl River Discharge	Freshwater discharge of the Pearl River for the entire year ( $10^8\text{m}^3$ ) - NOT USED AS A VARIABLE
MtlyPRDscg	Monthly Pearl River Discharge	Freshwater discharge of the Pearl River for that specific month ( $10^8\text{m}^3$ )
FclColfms	Faecal Coliforms	Faecal coliforms in water samples from that area for that month (cfu/100mL)
Salinity	Salinity	Salinity in that area for that month (psu)
SST	Sea Surface Temperature	Sea surface temperature in that area for that month ( $^{\circ}\text{C}$ )
Chlorophyll-a	Chlorophyll-a	Chlorophyll-a levels in that area for that month ( $\mu\text{g/L}$ )
FPAbund	Finless Porpoise Abundance	Estimated abundance of finless porpoises in that area for that month
MacFryQtly	Macau Ferry Quarterly Arrivals	Number of arrivals of passenger ferries from Macau in that quarter of year - NOT USED AS A VARIABLE
MacFryMtly	Macau Ferry Monthly Arrivals	Number of arrivals of passenger ferries from Macau in that month
OthFryQtly	Other Ports Ferry Quarterly Arrivals	Number of arrivals of passenger ferries from other mainland ports in that quarter of year - NOT USED AS A VARIABLE
OthFryMtly	Other Ports Ferry Monthly Arrivals	Number of arrivals of passenger ferries from other mainland ports in that month
AvgDepth	Average Depth	Average water depth of the survey area (m)
PropAreaLost	Proportion of Area Lost to Reclamation	Cumulative proportion of the survey area that has been lost as habitat due to land reclamation
PropAreaMP	Proportion of Area in Marine Parks	Cumulative proportion of the survey area that has been designated as marine park(s) for cetacean conservation
FishTtlProd	Fisheries - Total Production (Hong Kong)	Total fisheries production for all of Hong Kong (metric tons)
FishTrwlGlntr	Fisheries - Number of Trawlers/Gillnetters	Number of trawlers and gillnetters registered in Hong Kong
VessOcCrgo	Ocean Cargo Vessel Arrivals (Hong Kong)	Number of ocean cargo vessel arrivals in Hong Kong
VessConstr	Construction Vessels Working in Area	Estimated number of construction vessels working in that survey area
SurvyType	Survey Type	Organization coordinating and conducting survey (i.e., AFCD, HZMB, or Mott)
Effrt (km)	Line-Transsect Survey Effort	Amount of survey effort conducted in acceptable conditions (km)
ESW	Effective Strip Width	Estimated effective strip width [f(0)] for that year (/km)
nSI.SCHI	No. of Sightings of <i>S. chinensis</i>	Number of on-effort <i>Sousa chinensis</i> sightings
nANI.SCHI	No. of Animals of <i>S. chinensis</i>	Number of on-effort <i>Sousa chinensis</i> individual animals
g(0)	Trackline Detection Probability	Trackline detection probability [g(0)]

Table S2. Summary of the anthropogenic models built for each of the four survey areas. All models were built with the yearly design-based abundance estimates as the response variable and model-predicted yearly abundance estimates (Pred.Abund) as the main predictor variable, with each of the anthropogenic variables added separately to assess significance (see text for details). The anthropogenic variables offered to the models reflect those relevant to the survey area and available for modeling. P-values reflect the significance of the anthropogenic variable only, with an asterisk indicating the variable is significant (P-value < 0.05).

<b>Survey Area</b>	<b>Anthropogenic Model</b>	<b>P-value</b>
Deep Bay	Pred.Abund + faecal coliform	0.56
North Lantau	Pred.Abund + faecal coliform	0.67
	Pred.Abund + passenger ferries	0.97
	Pred.Abund + ocean cargo vessels	0.86
	Pred.Abund + working construction vessels	0.14
	Pred.Abund + habitat lost to reclamation	<0.001*
West Lantau	Pred.Abund + faecal coliform	0.24
Southwest Lantau	Pred.Abund + faecal coliform	0.27
	Pred.Abund + Macau passenger ferries	0.73
	Pred.Abund + finless porpoise abundance	0.47