Table 6. Intermediate parameters used in the calculation of the abundance when using (A) the mark-recapture distance sampling (MRDS) in the independent observer configuration assuming point independence, (B) multiple covariate distance sampling (MCDS) procedures, and (C) MRDS in the trial configuration assuming full independence to account for the responsive movement. In each part the following is included: the right truncation distance (in meters); key model and covariates chosen for each model; Cramer-von Mises goodness-of-fit test p-value (C-vM p-value); AIC value; estimate of effective half strip width (esw) and its coefficient of variation (cv(esw)), measured in meters; and the overall probability of detecting an animal group by at least one observer (p) and its coefficient of variation (cv(p)).

A. MRDS				covariates							
Species	platform	trunc dist (m)	key model	detection function (DS)	mark-recapture (MR)	C-vM test p-value	AIC	esw (m)	CV (esw)	over all p	cv(p)
Harbor porpoise	plane	350	HN	distance+glare	distance + team + swmdir + distance:team	0.85	2117.5	186	0.07	0.35	0.20
Atlantic white-sided dolphin	plane	200	HN	distance + beaufort	1	0.43	188.3	95	0.33	0.41	0.34
Fin and Sei whales	ship	5000	HAZ	distance+size+behavior	distance+team + distance:team	0.98	1234.5	2008	0.2	0.23	0.26
Humpback and Minke whales	ship	3000	HAZ	distance+beaufort+glare	distance+size	0.37	622.2	1151	0.29	0.30	0.32
Sperm whale	ship	6000	HAZ	distance+glare+size	distance+size+cue+ team	0.54	1036.4	3946	0.12	0.53	0.14
Bottlenose dolphin spp.	ship	3000	HAZ	distance	team*(distance+size +beaufort)	0.75	1617.0	1201	0.26	0.35	0.26
Short-beaked common dolphin	ship	4000	HAZ	distance+beaufort+cue+ glare	distance + size + swmdir + distance:size + size:swmdir	0.51	2720.7	1210	0.23	0.20	0.27
Atlantic spotted dolphin	ship	2000	HAZ	distance+beaufort+swellht	distance + cue + team	0.50	363.5	1174	0.32	0.59	0.32
Pilot whales spp.	ship	5000	HAZ	distance+glare	sighttime	0.66	846.6	1355	0.53	0.16	0.60
Striped dolphin	ship	5000	HAZ	distance	distance + team + size	0.78	1207.1	3239	0.10	0.61	0.11
Beaked whales spp.	ship	4000	HAZ	distance+species	1	0.66	1153.9	1198	0.43	0.13	0.45
Kogia spp.	ship	3500	HAZ	distance+species+sighttime	distance+team	0.35	557	1849	0.20	0.22	0.37

Table 6, continued. Intermediate parameters used in the calculation of the abundance when using (A) the mark-recapture distance sampling (MRDS) in the independent observer configuration assuming point independence, (B) multiple covariate distance sampling (MCDS) procedures, and (C) MRDS in the trial configuration assuming full independence to account for the responsive movement. In each part the following is included: the right truncation distance (in meters); key model and covariates chosen for each model; Cramer-von Mises goodness-of-fit test p-value (C-vM p-value); AIC value; estimate of effective half strip width (esw) and its coefficient of variation (cv(esw)), measured in meters; and the overall probability of detecting an animal group by at least one observer (p) and its coefficient of variation (cv(p)).

B. MCDS				covariates							
Species	platform	trunc dist (m)	key model	detection function (DS)	mark-recapture (MR)	C-vM test p-value	AIC	esw (m)	CV (esw)	over all p	cv(p)
Minke whale	plane	600	HN	distance+beaufort	NA	0.55	240.4	369	0.24	0.66	0.24
Large whales	plane	2100	HN	distance + species	NA	0.65	327.0	454	0.42	0.22	0.42
Fin whale								340	0.43	0.16	0.43
Sei whale								281	0.83	0.13	0.83
Fin or Sei whales								1788	0.36	0.86	0.36
Humpback whale								1462	0.21	0.70	0.21
Sperm whale								131	1.21	0.06	1.21

C. Trial configuration - Full independence				covariates							
Species	platform	trunc dist (m)	key model	detection function (DS)	mark-recapture (MR)	C-vM test p-value	AIC	esw (m)	CV (esw)	over all p	cv(p)
Risso's dolphin	ship	4000	HAZ	1	distance + beaufort + swmdir + glare + sighttime + glare:sighttime	0.81	1211.0	1561	0.13	0.26	0.46