

Appendix E. Posterior means and standard errors for estimated 2008 Bering sea seal survey classification rates.

TABLE E1. Posterior mean (SD) for classification probabilities ($\pi^{\tilde{S}|S}$) associated with model $\lambda(cov, j)$. Rows give true species identity, while columns give classified species.

	Bearded	Ribbon	Ringed	Spotted	Unknown
Bearded	0.56(0.06)	0.01(0.01)	0.05(0.03)	0.02(0.01)	0.37(0.06)
Ribbon	0.01(0.01)	0.47(0.05)	0.02(0.01)	0.09(0.03)	0.41(0.05)
Ringed	0.05(0.03)	0.02(0.01)	0.81(0.10)	0.01(0.01)	0.11(0.10)
Spotted	0.02(0.01)	0.09(0.03)	0.01(0.01)	0.65(0.10)	0.24(0.09)

TABLE E2. Posterior mean (SD) for classification probabilities ($\pi^{\tilde{S}|S}$) associated with model $\lambda(j)$. Rows give true species identity, while columns give classified species.

	Bearded	Ribbon	Ringed	Spotted	Unknown
Bearded	0.48(0.05)	0.01(0.01)	0.14(0.05)	0.02(0.01)	0.35(0.05)
Ribbon	0.01(0.01)	0.46(0.03)	0.02(0.01)	0.09(0.03)	0.42(0.03)
Ringed	0.14(0.05)	0.02(0.01)	0.70(0.12)	0.01(0.01)	0.13(0.12)
Spotted	0.02(0.01)	0.09(0.03)	0.01(0.01)	0.67(0.08)	0.21(0.08)

TABLE E3. Posterior mean (SD) for classification probabilities ($\pi^{\tilde{S}|S}$) associated with model $\lambda(\textit{pooled})$. Rows give true species identity, while columns give classified species.

	Bearded	Ribbon	Ringed	Spotted	Unknown
Bearded	0.53(0.11)	0.03(0.03)	0.10(0.06)	0.04(0.03)	0.31(0.10)
Ribbon	0.03(0.03)	0.51(0.09)	0.06(0.05)	0.07(0.04)	0.32(0.09)
Ringed	0.10(0.06)	0.06(0.05)	0.68(0.12)	0.02(0.02)	0.14(0.11)
Spotted	0.04(0.03)	0.07(0.04)	0.02(0.02)	0.48(0.05)	0.39(0.05)