APPENDIX
Statistical analyses of small waterbird counts

Table A1. Mean counts for Black Swan in the Hunter Estuary for various time intervals and statistical comparisons with counts from other time intervals. Statistically significant differences are highlighted.

	22-year mean	First 11 years	Second 11 years	P periods 1 & 2
Summer	62	40	87	0.004
Autumn	85	53	127	0.003
Winter	101	76	133	0.002
Spring	89	85	93	0.649
P summer-autumn	0.099	0.205	0.125	
P summer-winter	0.002	0.004	0.029	
P summer-spring	0.038	0.008	0.732	
P autumn-winter	0.283	0.061	0.809	
P autumn-spring	0.811	0.054	0.183	
P winter-spring	0.367	0.592	0.047	

Table A2. Mean counts for Australian Wood Duck in the Hunter Estuary for various time intervals and statistical comparisons with counts from other time intervals. Statistically significant differences are highlighted. There were no significant seasonal differences.

	22-year mean	First 11 years	Second 11 years	P periods 1 & 2
Summer	8	5	13	0.057
Autumn	10	5	16	0.018
Winter	8	7	9	0.423
Spring	7	4	10	0.035

Table A3. Mean counts for Australasian Shoveler in the Hunter Estuary for various time intervals and statistical comparisons with counts from other time intervals. Statistically significant differences are highlighted.

	22-year mean	First 11 years	Second 11 years	P periods 1 & 2
Summer	21	22	19	0.713
Autumn	52	38	70	0.193
Winter	38	55	16	0.003
Spring	6	9	1	0.032
P summer-autumn	0.011	0.166	0.033	
P summer-winter	0.032	0.009	0.778	
P summer-spring	0.001	0.057	0.006	
P autumn-winter	0.325	0.241	0.026	
P autumn-spring	<0.001	0.010	0.005	
P winter-spring	<0.001	<0.001	0.012	

Table A4. Mean counts for Pacific Black Duck in the Hunter Estuary for various time intervals and statistical comparisons with counts from other time intervals. Statistically significant differences are highlighted.

	22-year mean	First 11 years	Second 11 years	P periods 1 & 2
Summer	67	63	72	0.686
Autumn	75	57	98	0.054
Winter	31	20	46	0.002
Spring	38	24	56	0.025
P summer-autumn	0.631	0.776	0.218	
P summer-winter	0.003	0.009	0.149	
P summer-spring	0.026	0.020	0.420	
P autumn-winter	<0.001	0.040	0.001	
P autumn-spring	0.006	0.071	0.020	
P winter-spring	0.393	0.644	0.491	

Table A5. Mean counts for Grey Teal in the Hunter Estuary for various time intervals and statistical comparisons with counts from other time intervals. Statistically significant differences are highlighted.

	22-year mean	First 11 years	Second 11 years	P periods 1 & 2
Summer	244	180	309	0.124
Autumn	494	260	797	0.013
Winter	266	131	441	0.049
Spring	222	55	422	<0.001
P summer-autumn	0.021	0.307	0.024	
P summer-winter	0.787	0.381	0.424	
P summer-spring	0.725	0.005	0.341	
P autumn-winter	0.060	0.114	0.148	
P autumn-spring	0.014	0.007	0.086	
P winter-spring	0.604	0.116	0.909	

Table A6. Mean counts for Chestnut Teal in the Hunter Estuary for various time intervals and statistical comparisons with counts from other time intervals. Statistically significant differences are highlighted.

	22-year mean	First 11 years	Second 11 years	P periods 1 & 2
Summer	453	472	433	0.702
Autumn	656	530	818	0.129
Winter	173	165	184	0.722
Spring	123	89	164	0.037
P summer-autumn	0.043	0.527	0.049	
P summer-winter	<0.001	<0.001	0.009	
P summer-spring	<0.001	<0.001	0.003	
P autumn-winter	<0.001	<0.001	0.001	
P autumn-spring	<0.001	<0.001	<0.001	
P winter-spring	0.106	0.059	0.678	

Table A7. Mean counts for Australasian Grebe in the Hunter Estuary for various time intervals and statistical comparisons with counts from other time intervals. Statistically significant differences are highlighted.

	22-year mean	First 11 years	Second 11 years	P periods 1 & 2
Summer	9	6	13	0.093
Autumn	18	11	26	0.026
Winter	15	15	16	0.933
Spring	13	11	16	0.316
P summer-autumn	0.016	0.073	0.049	
P summer-winter	0.032	0.021	0.444	
P summer-spring	0.142	0.084	0.520	
P autumn-winter	0.501	0.362	0.100	
P autumn-spring	0.205	0.991	0.120	
P winter-spring	0.470	0.364	0.987	

Table A8. Mean counts for Hoary-headed Grebe in the Hunter Estuary for various time intervals and statistical comparisons with counts from other time intervals. Statistically significant differences are highlighted.

	22-year mean	First 11 years	Second 11 years	P periods 1 & 2
Summer	8	8	7	0.962
Autumn	14	12	16	0.507
Winter	8	9	5	0.178
Spring	11	17	5	0.014
P summer-autumn	0.126	0.418	0.157	
P summer-winter	0.960	0.650	0.590	
P summer-spring	0.257	0.065	0.579	
P autumn-winter	0.092	0.630	0.032	
P autumn-spring	0.583	0.432	0.033	
P winter-spring	0.190	0.142	0.948	

Table A9. Mean counts for Purple Swamphen in the Hunter Estuary for various time intervals and statistical comparisons with counts from other time intervals. Statistically significant differences are highlighted.

	22-year mean	First 11 years	Second 11 years	P periods 1 & 2
Summer	20	12	29	0.006
Autumn	17	7	30	<0.001
Winter	14	6	24	<0.001
Spring	12	7	19	<0.001
P summer-autumn	0.473	0.209	0.881	
P summer-winter	0.080	0.081	0.389	
P summer-spring	0.033	0.171	0.098	
P autumn-winter	0.264	0.516	0.257	
P autumn-spring	0.128	0.834	0.039	
P winter-spring	0.714	0.694	0.350	

Table A10. Mean counts for Eurasian Coot in the Hunter Estuary for various time intervals and statistical comparisons with counts from other time intervals. Statistically significant differences are highlighted. There were no significant seasonal differences.

	22-year mean	First 11 years	Second 11 years	P periods 1 & 2
Summer	108	17	209	0.002
Autumn	78	16	158	0.008
Winter	70	26	127	0.005
Spring	69	28	119	0.029

Table A11. Mean counts for all small waterbirds in the Hunter Estuary for various time intervals and statistical comparisons with counts from other time intervals. Statistically significant differences are highlighted.

	22-year mean	First 11 years	Second 11 years	P periods 1 & 2
Summer	1069	860	1270	0.035
Autumn	1583	1075	2243	0.007
Winter	775	566	1046	0.029
Spring	649	393	955	<0.001
P summer-autumn	0.022	0.258	0.022	
P summer-winter	0.034	0.021	0.383	
P summer-spring	<0.001	<0.001	0.139	
P autumn-winter	<0.001	0.006	0.007	
P autumn-spring	<0.001	<0.001	0.003	
P winter-spring	0.321	0.090	0.704	