

Using Decision Science for Monitoring Threatened Western Snowy Plovers to Inform Recovery
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Supplementary Appendix 2. Performance measures and constructed scales assigned to the monitoring objectives.

Performance measures and constructed scales assigned to the monitoring objectives (Table 1). Accuracy was used as a performance measure for estimated population size, estimated annual survival, and estimated nest success rate. These constructed scales were used to evaluate the expected performance of various monitoring strategies.

| Performance Measure | Constructed scale: Score and Description of score |
|---|--|
| Accuracy: bias and precision | 5 = Very high (low bias + high precision) 4 = High (medium/high bias + high precision) 3 = Medium (low bias + medium precision) 2 = Medium low (medium/high bias + medium precision) 1 = Low (any level of bias + low precision) |
| Effectiveness: identifying causes of nest failures | 5 = Substantially better than the historical average (> 10% reduction in nest failures attributed to "unknown cause") 4 = Better than the historical average (5% to 10% reduction in nest failures attributed to "unknown cause") 3 = No different than the historical average (0% to 5% reduction or increase in nest failures attributed to "unknown cause") 2 = Worse than the historical average (5% to 10% increase in nest failures attributed to "unknown cause") 1 = Substantially worse than the historical average (> 10% increase in nest failures attributed to "unknown cause") |
| Effectiveness: apportioning sources of nest predation | 5 = Substantially better than the historical average (> 10% reduction in predation events attributed to "unknown predator") 4 = Better than the historical average (5% to 10% reduction in predation events attributed to "unknown predator") 3 = No different than the historical average (0% to 5% reduction or increase in predation events attributed to "unknown predator") 2 = Worse than the historical average (5% to 10% increase in predation events attributed to "unknown predator") 1 = Substantially worse than the historical average (> 10% increase in predation events attributed to "unknown predator") |
| Information transfer: timeliness | 5 = Information is reported daily 4 = Information is reported every other day 3 = Information is reported on intervals of one week or less 2 = Information is reported at bi-weekly intervals 1 = Information is reported on monthly intervals |
| Information transfer: availability | 2 = Written report (information is distributed universally in writing and is formatted for record maintenance) 1 = Verbal report (information is distributed verbally to selected individuals and requires additional formatting for record maintenance) |