



Erratum

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ERRATUM

In *Condor* 109(4), November 2007, equations in the paper “Approximating variance of demographic parameters using the delta method: a reference for avian biologists” by Larkin Powell contained errors by the author.

Table 1 contained an error in the example given for the variance of the function $\theta^{1/7}$. The corrected formula for the variance is

$$\frac{1}{49 \cdot \sqrt[7]{\theta^{12}}} \cdot \text{var}(\theta).$$

Table 3, as corrected, is:

TABLE 3. Approximations for sampling variance of survival estimates, by the delta method, when changing the scale of temporal units.

| Survival temporal rescaling | | Relationship | Variance approximation |
|--------------------------------|-------------------|-------------------------------------|--|
| From | To | | |
| Daily | Weekly | $\hat{S}_w = (\hat{S}_D)^7$ | $\text{var}(\hat{S}_w) = 49 \cdot \text{var}(\hat{S}_D) \cdot \hat{S}_D^{12}$ |
| Daily | Monthly (30 days) | $\hat{S}_M = (\hat{S}_D)^{30}$ | $\text{var}(\hat{S}_M) = 900 \cdot \text{var}(\hat{S}_D) \cdot \hat{S}_D^{58}$ |
| Daily | Annual | $\hat{S}_A = (\hat{S}_D)^{365}$ | $\text{var}(\hat{S}_A) = 133225 \cdot \text{var}(\hat{S}_D) \cdot \hat{S}_D^{728}$ |
| Weekly ^a | Daily | $\hat{S}_D = \sqrt[7]{\hat{S}_w}$ | $\text{var}(\hat{S}_D) = \frac{1}{49 \cdot \sqrt[7]{\hat{S}_w^{12}}} \cdot \text{var}(\hat{S}_w)$ |
| Weekly | Monthly (4 weeks) | $\hat{S}_M = (\hat{S}_w)^4$ | $\text{var}(\hat{S}_M) = 16 \cdot \text{var}(\hat{S}_w) \cdot \hat{S}_w^6$ |
| Weekly | Annual (52 weeks) | $\hat{S}_A = (\hat{S}_w)^{52}$ | $\text{var}(\hat{S}_A) = 2704 \cdot \text{var}(\hat{S}_w) \cdot \hat{S}_w^{102}$ |
| Monthly (30 days) ^a | Daily | $\hat{S}_D = \sqrt[30]{\hat{S}_M}$ | $\text{var}(\hat{S}_D) = \frac{1}{900 \cdot \sqrt[30]{\hat{S}_M^{58}}} \cdot \text{var}(\hat{S}_M)$ |
| Monthly (4 weeks) ^a | Weekly | $\hat{S}_w = \sqrt[4]{\hat{S}_M}$ | $\text{var}(\hat{S}_w) = \frac{1}{900 \cdot \sqrt[30]{\hat{S}_M^{58}}} \cdot \text{var}(\hat{S}_M)$ |
| Monthly | Annual | $\hat{S}_A = (\hat{S}_M)^{12}$ | $\text{var}(\hat{S}_A) = 144 \cdot \text{var}(\hat{S}_M) \cdot \hat{S}_M^{22}$ |
| Annual ^a | Daily | $\hat{S}_D = \sqrt[365]{\hat{S}_A}$ | $\text{var}(\hat{S}_D) = \frac{1}{133225 \cdot \sqrt[365]{\hat{S}_A^{728}}} \cdot \text{var}(\hat{S}_A)$ |
| Annual ^a (52 weeks) | Weekly | $\hat{S}_w = \sqrt[52]{\hat{S}_A}$ | $\text{var}(\hat{S}_w) = \frac{1}{2704 \cdot \sqrt[52]{\hat{S}_A^{102}}} \cdot \text{var}(\hat{S}_A)$ |
| Annual ^a | Monthly | $\hat{S}_M = \sqrt[12]{\hat{S}_A}$ | $\text{var}(\hat{S}_M) = \frac{1}{144 \cdot \sqrt[12]{\hat{S}_A^{22}}} \cdot \text{var}(\hat{S}_A)$ |

^aError in variance formula in paper as originally published. The corrections have been included in the on-line variance calculator available at <http://snr.unl.edu/powell/research/research.htm>. The author regrets this error and is grateful to K. Pearson and C. Jennelle for their helpful suggestions and review of the corrections.