

Fewer, Larger Units

DMU size is a tradeoff between capturing spatial variation in deer abundance and achieving sample sizes large enough to precisely estimate SAK inputs. Deer abundance varies at small spatial scales, thus there will always be substantial within-DMU variation in deer, regardless of their size. There is apparent spatial autocorrelation in some, if not all SAK inputs, which supports aggregation and could provide guidance for how to aggregate. The graph below (Figure 6.22 from the Red Book) shows the relationship between sample size and precision of the percentage of yearlings in the harvest. There is clearly a strong relationship, with diminishing returns once sample sizes reach about 200-300 deer.

The tradeoffs appear to heavily favor aggregating DMUs.

The SAK review panel recommended combining units. In 2009's deer unit review the Department proposed combining units. See attached map.

<http://dmureview.editme.com/>

The stakeholder panel recommended a 3 year study where we would calculate SAK estimates for existing units and combined units. (I didn't volunteer to run 2 sets of books). See panel report:

<http://dmureview.editme.com/files/PublicStartPage/2009%20DMU%20Stakeholder%20Panel%20Report%20May%2019%202009%20PM.pdf>

DMU Aggregation and Goal Concept with Split CWD Management Zone

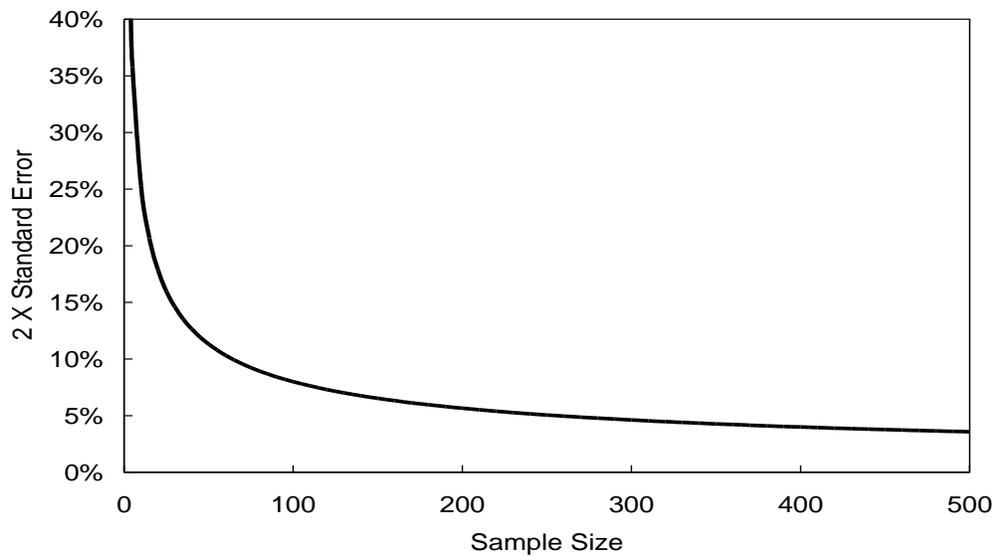
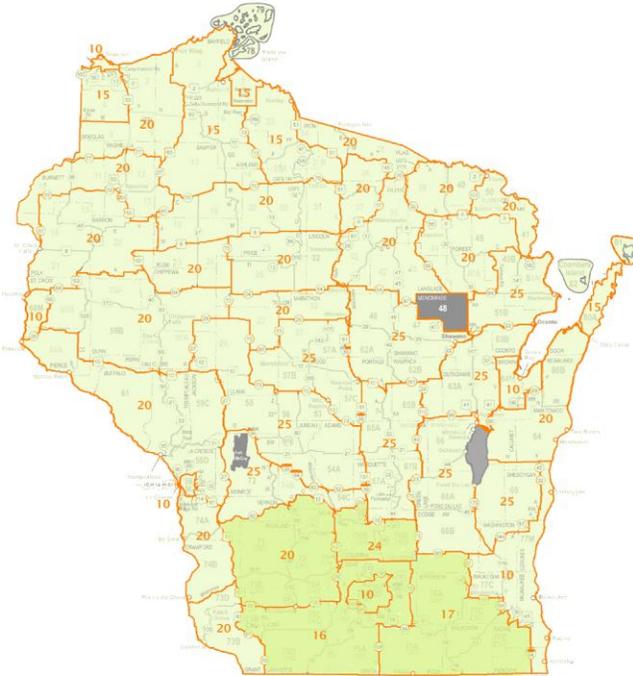


Figure 6.22. Effect of sample size on precision of estimates of percentage of yearlings.

