

CONCEPTS AND METHODS FOR SELECTION RATIOS: AN ELECTRONIC BOOK AND SOFTWARE

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This note describes an electronic book and accompanying software for selection ratio analyses that were briefly demonstrated during the conference. The book is being developed for practicing biologists who conduct resource selection studies. Computations (particularly standard errors for ratios and differences in ratios) are tedious and numerous. We are unaware of any stand-alone software for doing these analyses, and sought to fill that gap. The interactive nature of the e-book (with links to various features), allows hands-on studying and use.

Components:

1. **The book:** The book itself is one large Word file, with links to examples and VBA-coded software in an Excel platform.
2. **Book template:** a Word template file that drives the appearance and behavior of the book.
3. **Book summary:** An overview of the contents of the book is presented in a Powerpoint presentation for quick review or introduction to the concepts.
4. **Mathtype font installer:** Mathtype is the name of the company that created the Equation Editor used in Word. We're using a more sophisticated version; this file installs some fonts that are required for readable equations.
5. **Example files:** There are six example selection ratio analyses, each set up in their own Excel file. There is one example for each sampling scenario (population-level use and availability, individual-level use and population-level availability, and both measured at the individual level; each of these appears twice, once for known and once for estimated availability).

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