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Abstracts

**SPECIAL SECTION: CHOICES AND CONSEQUENCES OF AVIAN HABITAT SELECTION**

**MEASURING HABITAT QUALITY: A REVIEW**

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*Abstract.* Understanding habitat quality for birds is crucial for ecologists and managers, but few papers have explored the advantages and disadvantages of different ways to measure it. In this review I clarify terminology and distinguish habitat quality from related terms, differentiate habitat quality at the levels of individual birds and populations, and describe different field methods for measuring habitat quality. As much as feasible, biologists concerned with habitat quality should emphasize demographic variables while recognizing that reproduction, survival, and abundance may not all be positively correlated. The distribution of birds can also reveal habitat quality (e.g., through patterns of habitat selection), but researchers should first investigate how closely their subjects follow ideal distributions because numerous ecological factors can lead birds to select poor and avoid rich habitats. Measures of body condition can provide convenient measures of habitat quality, but to be useful they must be a consequence, rather than a cause, of habitat selection. Habitat ecologists should use caution before relying on shortcuts from more labor-intensive demographic work. To increase the reliability of our habitat quality measurements, we should work to develop new methods to assess critical assumptions of nondemographic indicators, such as whether birds follow ideal distributions under natural conditions and whether spatial variation in body condition manifests in differential fitness.

*Key words:* *body condition, demography, distribution, habitat preference, habitat quality, habitat selection, habitat suitability.*