

Special Issue

Population Modeling for Ecological Risk Assessment and Management of Species

Message from the Guest Editors

The scientific basis for using population models to assess, manage, and conserve species is well established. However, concerns related to model complexity, model uncertainty, endpoint utility, added investment, data availability, and general scepticism of models has impeded the acceptance of such models as standard practice across the spectrum of potential applications. In an effort to facilitate the use of population modeling in ecological risk assessment, a comprehensive guide was recently published called Population modeling Guidance, Use, Interpretation, and Development for Ecological risk assessment. It makes the process of model development transparent, and decisions and assumptions taken during development are made explicit. In this Special Issue, we provide case studies developed for different taxa and model applications to demonstrate how Pop-GUIDE works in practice and show its usefulness as a tool for consistent and transparent model development, evaluation, and communication. The potential topics include, but are not limited to:

- Ecological risk assessment
- Endangered species
- Environmental regulation
- Good modeling practice
- Population viability analysis

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