**SUMMARY**

This paper reviews the development of species distribution models (SDMs) and their use for conservation planning. With the advent of global datasets for climate projections, there has been dramatic growth in the use of SDMs to predict future landscapes. There are limits to extrapolating current distributions into future landscapes, but the models have a powerful role in conveying alternative scenarios to stakeholders and policy makers. The conservation community should be encouraged to make reasonable use of SDMs to identify important environmental parameters and insert science into the policy decision process.