



### New Method to assess the Effectiveness of Conservation Actions

American scientists have recently proposed a new method for assessing the effectiveness of land conservation projects in protecting threatened and rare species. This new approach takes into account the contribution of reserves to the persistence of species in different regions. This innovative tool for assessing conservation initiatives could be useful in improving the allocation of resources in protected areas.

The creation of reserves is an integral component of efforts to preserve biodiversity and to prevent species extinction due to habitat destruction. Given the limited resources available for conservation, it is essential to measure the effectiveness of protected areas in order to assess whether conservation targets are being met. To date, scientists have developed several methods for assessing this effectiveness. The simplest ones take into account parameters such as money spent on acquiring reserves and protected areas. Other methods use the gap between ex-ante conservation targets and the targets actually attained as an indicator of effectiveness. However, none of the current measurements of effectiveness take into account the regional and global role of the reserve network in species protection.

In this regard, American researchers have developed a new method to assess the effectiveness of land conservation in protecting rare and threatened species. The aim is to measure the degree to which a particular reserve network contributes to the estimated global or regional persistence of a species. The metric is based on the computation of an index called the protection index (PI). The calculation of the PI relies on global conservation status criteria such as the criteria used by the World Conservation Union to establish the "Red List"<sup>1</sup> of threatened species.

Authors highlight five advantages of their method:

- It measures overall progress in protecting the imperilled flora and fauna of a given ecosystem in terms of reduced risk of extinction.
- It provides useful insights into some challenges conservationists may face in protecting threatened species in a given ecosystem through the comparison of PI values under several scenarios differing in the sites protected.
- It identifies species that are insufficiently protected in the reserve.
- It identifies species likely to be of particularly high conservation concern in the future.
- It enables conservationists to quantify the contribution of each protected area to regional or global efforts to conserve particular species.

The authors conclude that the Protection Index is useful in predicting which species will be threatened in the future. It could be a reliable instrument for decision makers as they measure their progress toward achieving tangible goals, by providing support for efficient conservation planning. Moreover, this method is easily applicable to all ecosystems with multiple rare and threatened species.

<sup>1</sup>For more information: <http://www.iucnredlist.org/>

**Source:** Will R. Turner, David S. Wilcove and Hilary M. Swain (2006), "Assessing the Effectiveness of Reserve Acquisition Programs in Protecting Rare and Threatened Species", *Conservation Biology* 20-6:1657-1669.

**Contact:** [w.turner@conservation.org](mailto:w.turner@conservation.org)

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