

Symposium 19

Approaches to monitoring biodiversity for nature conservation

Short title: Monitoring Biodiversity

Chairs: *Ulrich Sukopp & Annette Doeringhaus*

From monitoring to indicators – calculation of the German sustainability indicator for species diversity

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The German sustainability indicator for species diversity is one of 21 head indicators of the national sustainability strategy [1]. It was developed in charge of the Federal Agency for Nature Conservation and indicates the state and quality of nature and landscape in Germany resulting from sustainable land use. The indicator is based on monitoring data about population trends of selected bird species indicating habitat quality of the main habitat types (Fig. 1). For each indicator species, a target value of the population size in 2015 was estimated by experts and set to 100%. Assuming that all existing guidelines of sustainable development and all existing nature conservation laws and regulations are rapidly put into action, the target value should be reached by a certain indicator species in 2015. Aggregated habitat indicators are calculated as mean values of the percentage shares of the actual values related to the target values for each species in one of the main habitat types. The top level indicator value is the mean of the second level indicator values weighted by the area proportion of the corresponding main habitat type in Germany (Fig. 1).

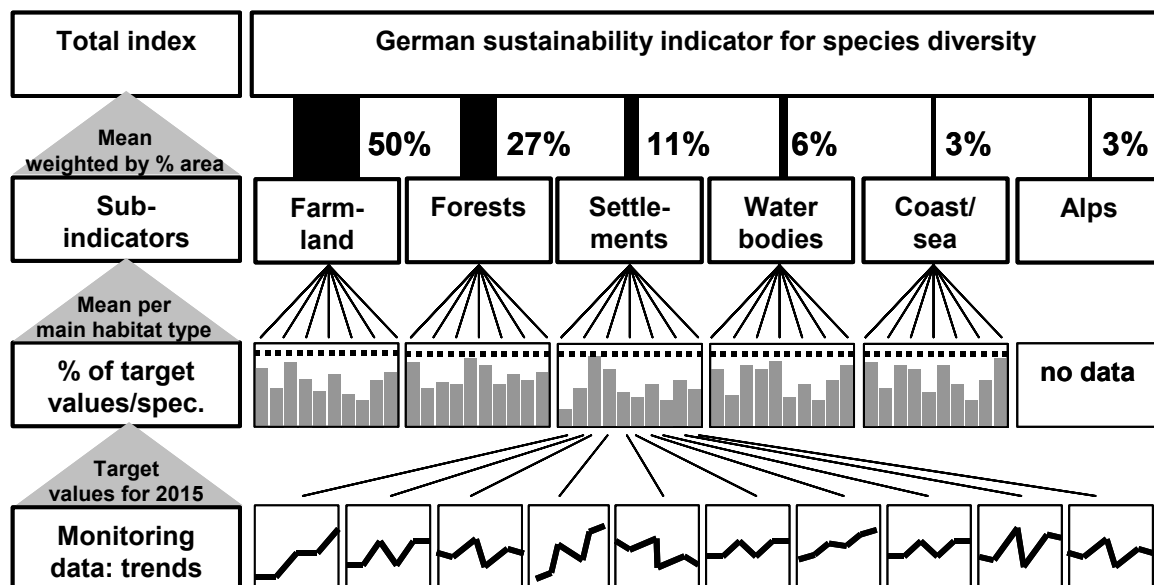


Fig. 1: Aggregation procedure of the German sustainability indicator for species diversity. Grey columns indicate actual values as percentage share of target values (dashed horizontal lines = 100%) for each species in a certain year; percentage values in upper line indicate area proportions of main habitat types.

Reference

- [1] Achtziger R, Stickroth H, Zieschank R (2004) Nachhaltigkeitsindikator für die Artenvielfalt – ein Indikator für den Zustand von Natur und Landschaft in Deutschland. *Angewandte Landschaftsökologie* 63: 1-137.

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