

An assessment of monitoring efforts in endangered species recovery plans.

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Recovery efforts for threatened and endangered species often must be initiated with incomplete data. The outcomes of such efforts are difficult to predict, which makes monitoring the progress of recovery efforts an integral part of the recovery process. We evaluated the role of monitoring in recovery plans for 181 species listed as threatened and endangered under the U.S. Endangered Species Act. We considered both the extent to which monitoring tasks were proposed as part of the recovery effort and the extent to which the tasks proposed were actually implemented. In general, tasks devoted to tracking the species' population trend were more likely to be proposed and implemented than were other monitoring activities (e.g. those devoted to the species' demographics, its habitat requirements, or the impact of predators, competitors, and exotics). We found that the extent and nature of the monitoring proposed and implemented appeared to reflect taxonomic biases that exist throughout the recovery process and were little influenced either by the level of understanding of the species' biology or by the recovery priority assigned to the species. In particular, monitoring efforts did not adequately address the specific threats affecting species. Proposals for, and implementation of, monitoring progress toward recovery goals were independent of the type of criteria defined in the plans (e.g. population level and habitat extent), although population-related criteria were disproportionately common. Based on these findings, we caution against an overemphasis on focal species monitoring, especially when such an emphasis leads to the reduction or exclusion of other types of monitoring. We also recommend that species-specific attributes factor more prominently in the development of monitoring to avoid monitoring action that is otherwise unnecessary.