

EVALUATING BIODIVERSITY OF RECLAIMED LANDSCAPE UNITS WITH RESPECT TO SCALE, DIVERSITY TYPES, AND SOCIAL STAKES¹

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Abstract: Restoring and possibly enhancing biodiversity can result from reclamation of drastically disturbed lands. In order to effectively evaluate the biodiversity of disturbed landscape units such as reclaimed mines or mining complexes, managers must choose spatial scales best suited to the types of biodiversity valued by stakeholders (individuals, communities, agencies, and action groups that value biodiversity and participate in social dialogues about it). To address this need, we are developing a checklist for systematically evaluating biodiversity in disturbed landscape units at six different scales (genetic, species, habitat or community, ecosystem, landscape, and biome) and for eight different types of diversity (functional diversity; inventory, structural, and differentiation attribute diversities; and spatial, temporal, compositional, and nested pattern diversities). We also suggest seven kinds of social stakes (inherent, utilitarian, subsistence, legacy, ecosystem integrity, aesthetic, and spiritual) held by different stakeholders with commitment to, or interest and involvement in managing landscape units for biodiversity. Our conceptual diagrams and checklist offer a means for relating scale and different types of biodiversity to one another, and for linking them to social concerns.

Additional Key Words: Land reclamation, evaluation

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