

Ecosystem Services, Environmental Stressors and Decision Making – Results of a Global SETAC and ESA Pellston Workshop

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There is increasing awareness that improved environmental management can be achieved by considering more explicitly the benefits that humans receive from ecosystems. In a broad sense, the contributions of ecological systems to the health and well being of people can be considered ecosystem goods and services (hereafter ecosystem services). The ecosystem service concept provides a framework for considering whole ecosystems in decision making, for valuing the services they provide, and for ensuring that society can maintain a healthy and resilient natural environment now and for future generations. A Pellston Workshop was convened by SETAC and the Ecological Society of America (ESA) in Shepherdstown, WV, USA, at the end of September 2014 to develop: 1) broad consensus about, and practical guidance for, the application of the ecosystem services concept to environmental decision making as part of a movement towards environmental sustainability; and 2) work products in the form of scientific manuscripts, booklets, and presentation materials needed to promote environmental stewardship through application of the ecosystem services concept by the memberships of SETAC and ESA globally, and society more generally. Thirty participants from academia, government, industry, and NGOs around the world worked toward consensus on a path forward for putting the ecosystem services concept to practical use in decision making. Individual workgroups considered five main topics: 1) ecosystem services, protection goals and environmental decision making; 2) understanding and applying ecological production functions; 3) applying the ecosystem services concept to risk assessment; 4) applying the ecosystem services concept in natural resource management and restoration; and 5) practical guidance for applying the ecosystem services concept in environmental decision making. This presentation highlights the key findings and recommendations of each workgroup, together with overall recommendations for improving the use of ecosystem services in decision making.