Abstract

Environmental Observatories Network of Namibia elucidates Desertifica

by Joh Henschel, Lesley Parenzee, Mark Robertson and Mary Seely
Desert Research Foundation of Namibia, Gobabeb Training and Research Centre, P.O.Box 20232, Windhoek, Namibia; drfn@drfn.org.na

Long-term ecological research (LTER) is a powerful tool for understanding environmental processes and monitoring their changes in arid countries like Namibia. It is therefore essential for effective natural resource management. The Desert Research Foundation of Namibia (DRFN) is using LTER as part of the National Environmental Observatories Network of Namibia (EONN) to connect basic and applied knowledge, and is particularly drawing on 40 years of experience at the Gobabeb Training and Research Centre in the Central Namib Desert, a SADC environmental centre. By monitoring and elucidating numerous biogeophysical and anthropogenic processes through established EONN methods, we are gaining fundamental insights of crucial environmental factors, how they are interrelated, and what functions they have towards the social, economic and natural environments in Namibia. Several case studies illustrate this, including: 1) the Kuiseb basin and the interrelationship between various natural resources on the long term; 2) variation in primary productivity on the plains over time and space; 3) beetle diversity patterns across habitats, space, and land-use types. The formation of a national Namibian EONN network and Namibia's leadership in a regional Environmental Long-Term Observatories Network of Southern Africa (ELTOSA) network and membership in the International Long Term Ecological Research Network are broadening the arena in which these lessons can be transformed into effective management of anthropogenic processes at local levels.