Title: Dynamic Resource Allocation in Conservation Planning
Conference: AAAI 2011

Summary
Dynamic resource allocation is the technique to optimize long-term objective functions. In many planning applications, the conditions are changing over time. In this paper, the authors solve the problem of conservation planning, where the budget and the patches of land are changing over time. They also prove that under some natural conditions, a simple policy, that in every round of the decision making process opportunistically allocates the budget given the current reserve and current resources attains a performance which is competitive with the optimal clairvoyant policy with knowledge of the future availability or resources.

Detailed comments
The strong points of this paper are
-S1: This paper models the species dynamics with a Markov chain.
-S2: This paper solves both the static reserve design problem and the dynamic design problem by introducing a monotonic submodular function as the objective function.
-S3: The authors prove that their solution is nearly optimal.

The weak points of this paper are
-W1: The authors do not provide a clear algorithm to solve the optimization problem.
-W2: The author should empirically prove the solution is nearly optimal.
-W3: Here the author assumes that species do not colonize between separate patches, while the story might not be like this in real world.

Discussion
-D1: Dynamic resource allocation could be used in dynamic budget allocation in difference privacy problems, where the privacy budget is changing over time.