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ERRATUM

Information Network Topologies for Enhanced Local Adaptive Management

ÖRJAN BODIN*
JON NORBERG
Department of Systems Ecology
Stockholm University
106 91 Stockholm
Sweden

RE: *Environmental Management* Vol. 35, No. 2, pp. 175–193: Due to a printer's error, the upper horizontal curves of Figures 1, 2, and 4 were broken or omitted in the published version of this article. These figures are presented correctly below along with their captions.

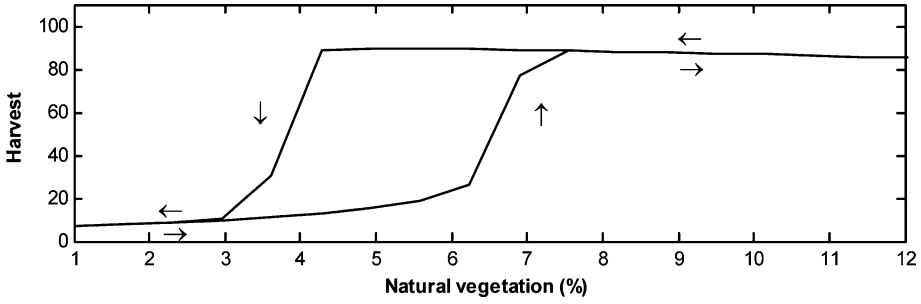

Figure 1. Long-term average harvests, averaged over 20 time steps of cropping/harvesting, versus amount of natural vegetation. As indicated by the arrows, the amount of natural vegetation was continuously adjusted, starting with a high value (to the right) and then gradually decreased to zero, followed by an increase again. Two distinct states with low and high harvests, respectively, exist below and above the interval from approximately 3% to 7% of natural vegetation and the threshold shows hysteresis; that is, recovery requires a significant increase in natural vegetation after a transition into the state with low harvest levels. Note that the maximum level of natural vegetation is 10 area units and that the part shown here concerns only the lower 12% of this range. Above this range, there is an almost linear relationship between the amount of arable land and total harvest.

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*Author to whom correspondence should be addressed; *email:* orjan@system.ecology.su.se

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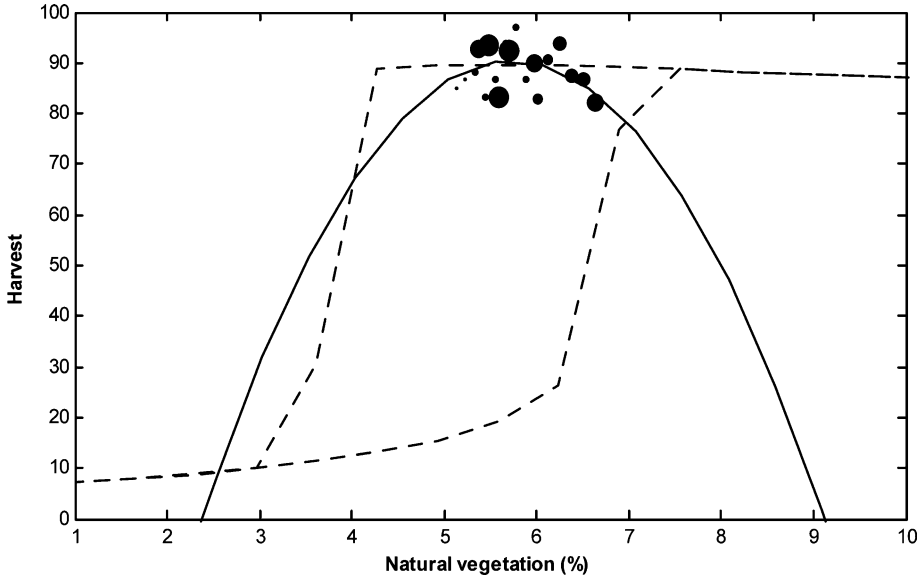

Figure 2. Representation of the mental model. The dots are previous experiences, and the solid curve is fitted using weighted regression analysis to those experiences. Accordingly, the curve represents the agents' belief about how the harvests are related to the amount of natural vegetation. The size of the dots indicates the weight the experiences are assigned during the regression analysis (with an upper limit of 20 time steps; that is, experiences older than 20 time steps disappear). The dashed curve is the actual long-term harvests versus the amount of natural vegetation (as seen in Figure 1).

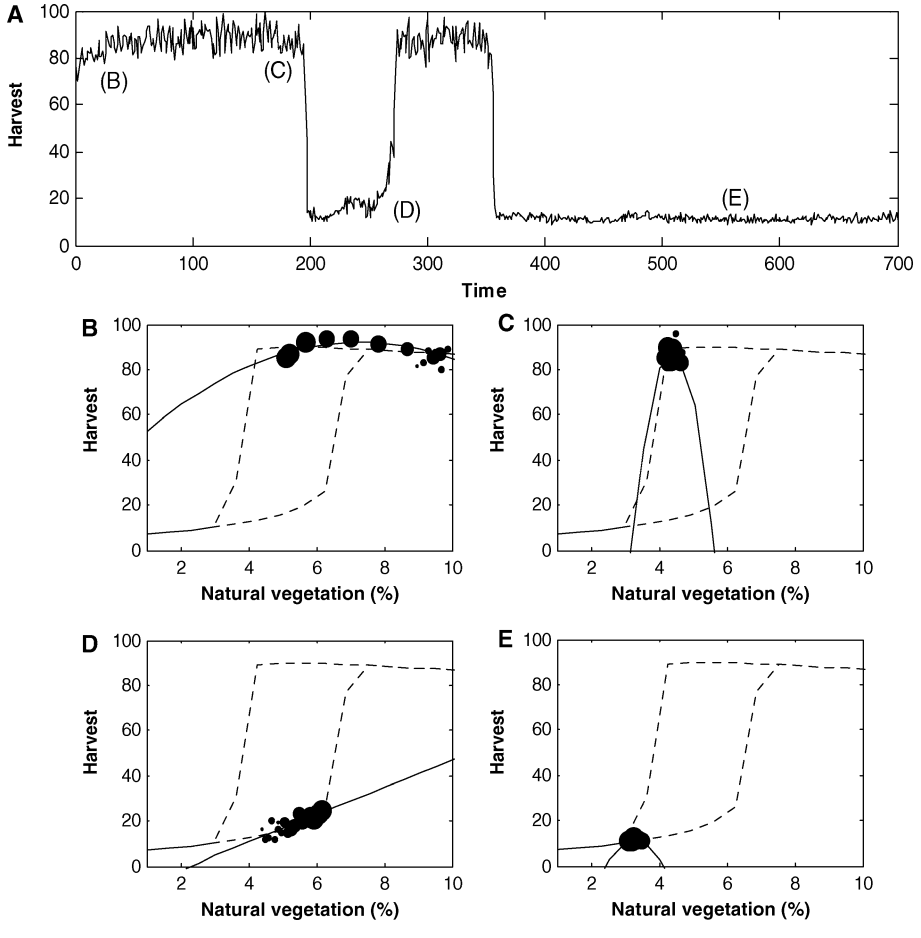

Figure 4. Adaptive cycle with a single agent. The agent goes through phases of high and low harvests levels, but occasionally after a number of cycles, it will not be able to reenter the desired state of high harvests levels (i.e., shifting baseline). In (A) the harvest level versus time for a single adaptive cycle is shown. The mental models at times (B), (C), (D), and (E) are presented in parts B–E, respectively. In (B), the agent has perceived the way to reach optimal harvests. In (C), the agent has been at the perceived optimum for a while, and previous experiences have vanished, leaving a narrow and fragile decision-making base. In (D), the agent has undergone a collapse but has been able to create a mental model showing the way back to the desired state. Finally, in (E), the agent is trapped in the undesired state where experiences from the desired state are lost and a way back is not perceived. Thus, the agent is trying to suboptimize the harvest at a level much lower than its potential.