

Ecology, Conservation and Management of Mediterranean Climate Ecosystems

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Using fuzzy systems to simulate population dynamics of Mediterranean arthropods

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An age-structured model involving demographic parameters is used to simulate population dynamics of Mediterranean arthropods. For parameter estimation a fuzzy set system is employed. Large white noise in autumn and spring superimposed on sinusoidal varying temperature drives stochastic equilibria in population size. The interplay among life history traits of populations at equilibrium is discussed.