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More capital or income breeding optimal strategies for indeterminate growers in the seasonal environment

We use dynamic optimization algorithm to find adaptive schedules of energy allocation to growth and reproduction in the seasonal environment for an organism that can be capital or income breeder. Value of newborns in our model is related to the timing of reproduction. Our results show that the relationship between newborns value and storing reserves for reproduction can be highly negatively correlated. Importantly the reliance on reserves in reproduction may be optimal without the stochastic changes in environmental conditions usually assumed in the models of capital breeding evolution. Our results confirm also the idea that optimality of capital breeding strategy depends on efficiency of energy channeling from reserves to reproduction.