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### Ecological Stoichiometry: Ten Years of Progress on the topic of Homeostasis

Ecological Stoichiometry concerns itself with how the nutrient content of organisms shapes their ecology. A core concept in ES is stoichiometric homeostasis -- the resistance of organism nutrient content to change in the face of variation of nutrients in the environment. In Sterner and Elser 2002, homeostasis was defined as a quantitative concept. Since then, numerous studies and some meta-analyses have appeared. We have learned a lot about mechanisms of homeostatic maintenance at different scales of organization, about patterns in homeostasis across elements and across organisms, and about the implications of homeostasis on ecological processes. On the other hand, we have made little progress at all on the question of why some organisms are so tightly homeostatic for element content.