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7.3.2 Variability of trophic link strengths
8 Trophic Niche Space and Trophic Traits; 8.1 Topology and dimensionality of trophic niche space; 8.1.1 Formal setting; 8.1.2 Definition of trophic niche-space dimensionality; 8.2 Examples and ecological interpretations; 8.2.1 A minimal example; 8.2.2 Is the definition of dimensionality reasonable?; 8.2.3 Dependencies between vulnerability and foraging traits of a species; 8.2.4 The range of phenotypes considered affects niche-space dimensionality; 8.3 Determination of trophic niche-space dimensionality; 8.3.1 Typical empirical data
8.3.2 Direct estimation of dimensionality
8.3.3 Iterative estimation of dimensionality; 8.4 Identification of trophic traits; 8.4.1 Formal setting; 8.4.2 Dimensional reduction; 8.5 The geometry of trophic niche space; 8.5.1 Abstract trophic traits; 8.5.2 Indeterminacy in abstract trophic traits; 8.5.3 The D-dimensional niche space as a pseudo-Euclidean space; 8.5.4 Linear transformations of abstract trophic traits; 8.5.5 Non-linear transformations of abstract trophic traits; 8.5.6 Standardization and interpretation of abstract trophic traits; 8.5.7 A hypothesis and a convention
8.5.8 Getting oriented in trophic niche space

Sommario/riassunto

Food webs have now been addressed in empirical and theoretical research for more than 50 years. Yet, even elementary foundational issues are still hotly debated. One difficulty is that a multitude of processes need to be taken into account to understand the patterns found empirically in the structure of food webs and communities. Food Webs and Biodiversity develops a fresh, comprehensive perspective on food webs. Mechanistic explanations for several known macroecological patterns are derived from a few fundamental concepts, which are quantitatively linked to field
