TABLE 1: Stability measurements

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| Stability type | Meaning | Measure |
| Asymptotic resilience (Arnoldi et al. 2016)  Return rate (Ives et al. 2013) | Rate of return to equilibrium (assuming linear, deterministic model) following a disturbance | Largest (dominant) eigenvalue of community matrix  (max λB) |
| Intrinsic Stochastic invariability (Arnoldi et al. 2016) | Stochastic variability (Vs) is the maximal system response to a white noise or a sequence of uncorrelated shocks, determined by computing the spectral norm of the covariance matrix (Figure 3, Arnoldi et al. 2016) | Is = 1/(2Vs)  Where Vs = function of covariance matrix |
| Reactivity or Initial resilience (Arnoldi et al. 2016, Snyder 2010). High initial resilience is equivalent to non-reactivity | Instantaneous displacement after a perturbation. Initial resilience is positive when the system is non-reactive. | -tr(Σ)/tr(V∞)  max λB’B |
| Population CV (PCV) | The average variability of individual populations through time measured as the coefficient of variation | The average of individual CVs for each population |
| Weighted Population CV (WPCV) | The variability of individual populations over time, using a weighted average of each of the population biomass CVs. | The average of individual CVs for each species biomass weighted by the contribution of each population to the total community biomass |
| Community Variability (CCV) | The variability of the entire community (zooplankton and algae) over time measured as the CV of total community biomass. | The CV of total community biomass over time |
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| Rate of convergence of the transition distribution to the stationary distribution | The rate at which the transition distribution returns to the stationary distribution (which is not a stable point in a stochastic model). This is related to asymptotic resilience, but not completely (Ives pg. 309) | max λBXB  (Max eigenvalue of the Kronecker product?) |
| Variation along the dominant eigenvector | The best one dimensional estimate for the multidimensional system. Larger means less stable. | 1/(1-eig^2) |
| Variance of the stationary distribution (Ives et al. 2013) | Measures the size of the stationary distribution relative to the size of the distribution of process (environmental variation) errors. A measure of how much species interactions amplify environmental variability | Det (B) 2/p Determ. of a matrix (B) the products of all eigenvalues, p is the # of sp. in the matrix. |
| Intrinsic deterministic variability | The inverse of the maximal amplitude gain over all single-frequency periodic signals - basically looking at the maximum system response to different frequencies and directions of perturbations | ID = 1/VD  Where VD = deterministic variability which is the maximum system response |