**Title**: Temporalchanges in the individual size distribution decouple long-term trends in abundance, biomass, and energy use of North American breeding bird communities

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**Data availability:** All data and code supporting this manuscript are available online on GitHub at <https://www.github.com/diazrenata/BBSsims>. For the purposes of double-blind review, we have uploaded an identical copy of these materials to a temporary GitHub repository at <https://github.com/bbssizeshifts/BBSsims>. Upon manuscript acceptance, they will be archived in perpetuity on Zenodo.

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**Ethics approval, patient consent, reproduction of material, and clinical trial registration:** These do not apply to this manuscript.

**Biosketches:** RMD is a computational biodiversity scientist studying how the emergent properties of ecological systems respond to global change. SKME is an ecologist who studies long-term changes in communities and the processes driving those changes.