

Sevilleta methods

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We aim to establish a mechanistic framework for determining foraging behavior as a function of an organism's onboard and offboard energetic capacity, the time of year, and the corresponding impacts that environmental variation over different seasons has on the availability and patchiness of potential dietary resources. We thus focus on two principle state variables: 1) the energetic state of the consumer (it's body condition, or onboard energetic storate), and 2) the state of the organism's cache.

Accordingly, our framework determines the resource that maximizes the organism's future fitness given the energetic costs and gains of different food items, as well as the organism's current body condition (onboard energetic storage) and cached resources (offboard energetic resources).