

Niche heterogeneity shapes animal chemosensory systems

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To thrive in fluctuating environments, animal species utilize chemosensory systems for locating, examining, and responding to foods, toxins, mates, predators, and competitors. Here, I will present how natural selection shapes animal chemosensory systems to best fit diverse ecological niches. Specifically, I will show (1) the maintenance of genetic diversity in chemosensory genes that contribute to the survival in heterogeneous niches and (2) the remodeling of chemosensory systems upon niche specialization.