

## **Development, selection, and species diversification**

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### **Summary:**

The evolution of adaptive traits can open new ecological opportunities and facilitate species diversification. However, the nature and utility of such traits during colonization of new niches is often unclear. The semi-aquatic bugs (Heteroptera, Gerromorpha) adapted to water surface life and diversified to colonize a wide range of niches including lakes, stream, ponds, and even oceans. In this talk, we will see how this group of organisms can serve an efficient model for integrative studies of morphological evolution. We will discuss how various processes, ranging from the effect of locomotion of fluid substrates to sexual selection, can drive species diversification.