How many kinds of individual are there?

Bernabé Santelices

Abstract

The concept of the individual links population biology with darwinian selection. In spite of its importance, the concept is used with great ambiguity. Confusions seemingly stem from a limited analysis of the variability found in attributes classically used to characterize individuality. Such characterization involves the simultaneous holding of genetic uniqueness, genetic homogeneity and autonomy, which in turn are considered invariant attributes. Data accumulated over the past 15 years, however, indicate that all three characters can independently be present or absent in different types of multicellular organism. Combining their respective presence or absence leads to recognizing different kinds of individual; a realization that has ecological and evolutionary implications.