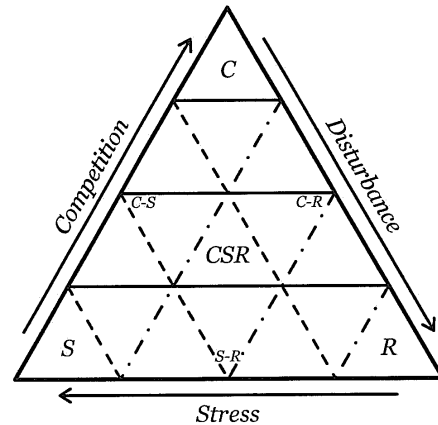
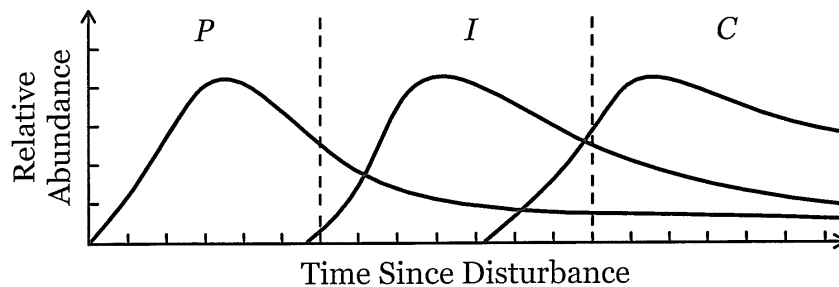


## PIONEER SPECIES



Grime's theory of C-, S-, and R-selection suggests that there are three selection pressures on plants that result in three strategies or functional types: competitive (C), stress tolerant (S) and ruderal (R). After disturbance, succession proceeds from the bottom right hand corner of the diagram (maximum influence of disturbance) towards the C-S side of the triangle. The pathway towards the C-S axis will be determined by the level of stress (e.g. productivity of the soil, shading etc.), which can change throughout the succession.

Without repeated disturbance, R-type plants will be outcompeted by more efficient C-type plants or more stress resistant R-type plants.



P = Pioneer Stage with annual plants like grasses, ferns and wildflowers  
 I = Intermediate Species consisting of shrubs, pines and young oaks  
 C = Climax Community mature oak and sycamore trees

## ABOUT TOADS

A frog is any member of a diverse and largely carnivorous group of short-bodied, tailless amphibians composing the order Anura (literally without tail in Ancient Greek). An adult frog has a stout body, protruding eyes, anteriorly-attached tongue, limbs folded underneath, and no tail. Frogs have glandular skin, with secretions ranging from distasteful to toxic.

Toad is a common name for certain frogs that are characterized by dry, leathery skin, short legs, and large bumps covering the parotoid glands. A distinction between frogs and toads is not made in scientific taxonomy, but is common in popular culture, in which toads are associated with drier, rougher skin and more terrestrial habitats. It's a myth that handling toads causes warts. Another folklore belief is that a so called bufonite or toadstone is set in the toad's skull which could cure poison. Since the toad possesses poison glands in its skin, it was naturally assumed that they carried their own antidote and that this took the form of a magical stone. Mention of bufonite was first recorded by Pliny the Elder in the first century AD. Contrary to their bad reputation, toads occupy an important niche in ruderal ecosystems controlling insect population and providing food resource for bigger predators like birds and reptiles.

