Timeline of classification, character analysis, phylogenetics

1	Class.	Scala Naturae	theory	grouping and ranking
2	Char.	Essential characters	theory	definition of groups
3	Class.	Linnaean Hierarchy	practical	grouping and ranking
4	Char.	Linnaeus' Sexual System	practical	use of plant reproductive morphology to classify
5	Class.	Downward classification	practical	subdivide large groups based on the essential characters
6	Char.	Character suites	practical	not all groups have a single, essential character
7	Class.	Upward classification	practical	group similar organisms to discern character suites
8	Char.	Affinity *vs* coincidental similarity	theory	Difficulty explaining different types of similarity
9	Char.	Owen's: homology and analogy	practical	Similar function leads to "bad" characters
10	Phylo.	Darwin's *On the Origin of Sp.*	theory	basis for groupings; explanation of affinity as descent from common ancestor (not convergence)
11	Char.	Lankester homoplasy + homology	theory	evolutionary definitions of homology
12	Char.	(will be covered later) Remane's homology criteria	practical	position, "special similarity", continuity
13	Class.	"Evolutionary Systematics"	theory	"balance" of anagenesis and cladogenesis.
14	Class.	"Numerical taxonomy"	theory	classify based on similarity rather than phylogeny
15	Phylo.	Character Matrices	practical	Advocated by numerical taxonomists and phylogenetic systematists
16	Class.	Phylogenetic Systematics	both	base classifications only on recency of common ancestor
17	Phylo.	(in class on Tues, Feb 11) Hennig's logical approach to tree inference	both	more rigorous theory and methods of tree inference

Other terms and topics we have discussed

the comparative method
systematics vs taxonomy vs clasification vs nomenclature
phylogeny
essentialism
nominalism
need for scientific names
cluster class
goals of a classification

binominal nomenclature vs polynomial nomenclature
Linnaean taxonomic definitions
dichotomous key
hierarchy
rank
grade
clade
monophyletic
paraphyletic
polyphyletic
speciation / cladogenesis
anagenesis
distance matrix
similarity matrix
character matrix
OTU