## After Cain's list from the 1944

- 1. Location of greatest number of species (taxa)
- 2. Location of greatest concentration of individuals (dominance)
- 3. Location of primitive and closely-related forms
- 4. Location of largest and most robust individuals
- 5. Location of greatest productivity and stability
- 6. Center of lines of migration radiating from a location
- 7. Location of greatest breadth of habitats (least dependence on rare habitat)
- 8. Center of lines of clinal variation radiating from location
- 9. Geographical affinity (all southern hemisphere)
- 10. Annual migration of birds (all species winter in Mexico
- 11. Seasonal appearance (conserved phenology)
- 12. Location of greatest number of dominant alleles
- 13. Greatest number of overlapping distributions
- -these sort of criteria were very actively used up to the early 1980s and still persist at least implicitly
- -centers of origin and dispersal is very often used to make sweeping statements about innovation and causes of "success"