Test of substitution saturation (Xia et al. 2003; Xia and Lemey 2009) Testing whether the observed Iss is significantly lower than Iss.c. Part I. For a symmetrical tree. ========= Prop. invar. sites 0.0000 1.6929 Mean H Standard Error 0.0293 Hmax 1.8780 0.9014 lss 0.8044 lss.c 3.3177 Т DF 2570 Prob (Two-tailed) 0.0009 95% Lower Limit 0.8441 95% Upper Limit 0.9588 Part II. For an extreme asymmetrical (and generally very unlikely) tree. \_\_\_\_\_ 0.6159 lss.c 9.7575 DF 2570 Prob (Two-tailed) 0.0000 95% Lower Limit 0.8441 95% Upper Limit 0.9588 \_\_\_\_\_\_ Interpretation of results: Significant Difference

Yes

lss < lss.c Little Substantial

saturation saturation

lss > lss.c Useless Very poor

sequences for phylogenetics

## Please cite:

Xia, X., Z. Xie, M. Salemi, L. Chen, Y. Wang. 2003. An index of substitution saturation and its application. Molecular Phylogenetics and Evolution 26:1-7.

Xia, X. and Lemey, P. 2009. Assessing substitution saturation with DAMBE. Pp. 615-630 in Philippe Lemey, Marco Salemi and Anne-Mieke Vandamme, eds. The Phylogenetic Handbook: A Practical Approach to DNA and Protein Phylogeny. 2nd edition Cambridge University Press.