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 0.4730 Mean H Standard Error 0.0251 1.8656 Hmax 0.2535 lss 0.7628 lss.c Т 20.3133 DF 926 Prob (Two-tailed) 0.0000 95% Lower Limit 0.2043 95% Upper Limit 0.3027

Part II. For an extreme asymmetrical (and generally very

unlikely) tree.

lss.c 0.5286 Т 10.9715 DF 926

Prob (Two-tailed) 0.0000

95% Lower Limit 0.2043 95% Upper Limit 0.3027

Interpretation of results:

Significant Difference

Yes No

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.