

Figure S15 Observed (black bars) and expected (red points and lines) folded site-frequency spectra for sample coverage classes from 11 to 18 sampled alleles. Counts were standardized by  $\theta$  for ease of comparison across sample coverage classes. Goodness-of-fit tests to the expected distribution reveal that all spectra deviate from neutral expectations (class 18:  $\chi^2$  = 365.09, P < 2.20e-16; class 17:  $\chi^2$  = 323.45, P < 2.20e-16; class 16:  $\chi^2$  = 172.31, P < 2.20e-16; class 15:  $\chi^2$  = 136.98, P < 2.20e-16; class 14:  $\chi^2$  = 117.99, P < 2.20e-16; class 13:  $\chi^2$  = 130.32, P < 2.20e-16; class 12:  $\chi^2$  = 114.23, P < 2.20e16; class 11:  $\chi^2$  = 82.15, P < 2.20e-16). The degrees of freedom for each test are the number of bins on the x-axis minus one.

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