



Figure 4. Evolutionary spectral analysis results for a) Maiana and b) Niño 3.4 SST records. Analysis was performed on 40-year segments of data overlapped by 4 years, using multitaper methods with red noise background assumptions²⁴. Colored regions show variance significant above the median background (>50%), and black contours enclose regions with variance significant at >90%. These spectra share several general features – significant 19th-century decadal variance, strong variance at 2.9 year periods in the early 20th century, attenuation of 2-4 year variance between 1920-1955, and the general progression from decadal towards higher frequency interannual variance over the length of the record. The low-frequency variance concentration in the final years of the coral record reflects the step-function change in 1976.

from Urban et al. 2000