

## Star-rhythm in mistletoe shape

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The mistletoe lambda-value analysis by Baumgartner and Flückiger published in your Journal (1) is of interest (I read the English translation published in *Archetype* (2)). The authors detected a sidereal-element Moon-rhythm in a berry, instead of the fortnightly lunar-month rhythms that had normally been found in buds, using the same lambda-value maths (changing bud shape) developed by Lawrence Edwards (3). The Moon-rhythm they found was therefore of 9.1 day periodicity (27.3 / 3 days), not the 14 – 15 day periodicities hitherto reported (4).

While they displayed their results by the twelve unequal constellation-divisions along the lunar ecliptic path (the horizontal line along the middle of their graph shows where they reckon these boundaries should be), I would advocate use of a best-fit third-harmonic waveform over 120° of sidereal space as a more scientific approach. The authors were not prepared to part with their data but allowed me a high-resolution graph (5), inviting me to extract lunar longitudes and mean deviations of their lambda values there from. I did this (using the 'Autograph' math package to read off the co-ordinates) and have used these; an error of a degree or so is likely as resulting from my data extraction.

One is startled that they were not able to find any physical or environmental factor which correlated with the berry shape of mistletoe, eg rainfall or humidity. This may have been because of the nearly circular shape of the fruits, whereby the lambda-value hovered around unity: ambient moisture would have expanded or contracted the berries, without altering their lambda-value (the 'path-curve' shape). It might be worth the authors clarifying this point, as to whether the berry size varied with atmospheric moisture and rainfall, whereas their shape (lambda-value) did not.

### *Data-Transformation*

The two authors trend-corrected each data set from the three years 1995, 1997 & 1998 using linear regression lines. That made the data zero-sum, i.e. varying about a mean, (They called this the  $\lambda'$  data) and that enabled them to combine the three years' data. For their second paper they somehow acquired 1991 data, as well as more from 2000 and 2001.

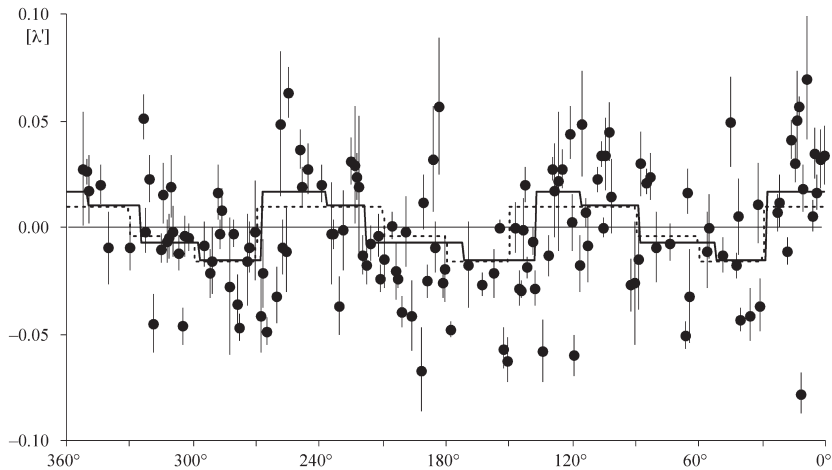


Fig 1: Figure 7 from the Authors' 2003 paper. Total (139) trend-corrected  $\lambda'$ -values from mistletoe berries over six years, plotted by (tropical) lunar longitude at measuring-time, and showing the 12 unequal-constellation boundaries used by the authors.

### *Using a 3rd-Harmonic Waveform*

Using these 139 combined  $\lambda'$  data points, I plotted them by lunar zodiac longitude at time of measurement, using the star-zodiac (6). But, the plot only extended to  $120^\circ$ , i.e. through four zodiac signs, so that longitudes of  $130^\circ$  or  $250^\circ$  from zero Aries would count as  $10^\circ$ .

The waveform present in this transformed data is shown in Figure 2. Such a  $120^\circ$  'third harmonic' waveform can only be plotted, if one assumes that the sidereal zodiac elements are divided in a twelvefold manner (by the 'trigons') *at equal  $30^\circ$  intervals*.

The data indicated that the Four Elements – or, four ethers – work into berry (not bud) morphology. The plot shows a sort of Thun-type 'sidereal element' effect, but spread over both Air and Water ('flower-days' and 'leaf-days'). I've subtracted  $25^\circ$  from their given Moon-zodiac longitudes (i.e., normal 'tropical' longitudes, as calculated by the Authors) to give sidereal-zodiac longitudes: that being the generally-agreed current 'ayanamsa' or phase-difference between tropical and sidereal zodiacs.

A 3rd-harmonic waveform will have the equation,  $\lambda = \alpha \sin 3(l - \beta)$  where  $\alpha$  is the *amplitude* of the effect, and the number '3' pertains to the *wavelength* or frequency, meaning that the waveform will go through three cycles per sidereal lunar month, measured  $0 - 120^\circ$ . ' $\beta$ ' gives the *phase* of the waveform, eg this is where you have to put in the  $25^\circ$  which shifts from tropical (the lunar longitude