



Large-scale patterns of fruiting seasonality across the Neotropics

Irene Mendoza (1), Carlos A. Peres (2), and L. Patrícia C. Morellato (1)

(1) Universidade Estadual Paulista, Instituto de Biociencias, Botany, Rio Claro, Brazil (irene.mendoza.sagrera@gmail.com),

(2) University of East Anglia, School of Environmental Sciences. Norwich NR4 7TJ, United Kingdom.

Organisms have different phases during their life cycles and their timing of occurrence is affected by a combination of both abiotic and biotic factors. In the case of plants, the timing of fruiting is very sensitive to environmental factors and subjected to a variable degree of seasonality (i.e. intra-annual changes), but we still lack of a clearer understanding of the triggers of their phenology over large geographic scales. This is particularly true for the tropics, where the high diversity of species magnifies the spectrum of phenological patterns. It has been pointed out that fruit production in the tropics is predominantly aseasonal, favoring that frugivore animals get resources all over the year. We present here the results of an extensive review of fruiting phenology all over the Neotropics based upon more than 200 datasets collected in different vegetation types, combining both published and unpublished data. Contrary to the hypothesis that fruiting in the tropics is commonly aseasonal, our results showed a marked seasonality for the majority of vegetation types, although there was a high degree of variability in fruiting patterns. Ongoing research is elucidating the latitudinal correlation of fruiting seasonality with climatic variables such as rainfall, temperature, evapotranspiration, irradiance or daylength. The detection of the periods of fruits scarcity and abundance has a capital importance for the conservation of frugivore animals. A better understanding of the correlates between fruiting seasonality and climate helps in the forecasting of species' phenological responses to ongoing climate change