

SEASONAL AND INTERANNUAL CHANGES IN GIBBON FOODS LEAD TO UNPREDICTABLE SHORTAGES

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Climates in continental Southeast Asia have long dry seasons of unpredictable length, which is related to strongly seasonal flowering and fruiting patterns to which frugivores must adapt. A long term study of gibbon (*Hylobates lar*) foraging patterns and diet in Khao Yai National Park, Central Thailand, has begun to show marked interannual variability in the abundance of preferred fruit species as well. Such mast fruiting is strongly synchronized within species but not between species. We hypothesized that such variability would result in frequent shifts in diet as well as unpredictable food shortages. Variability between years seems to be most prevalent in species that fruit in the dry season (especially Nov.-Feb.), the time of year when the variety of fruits available is lowest, and in some years nil. The gibbons respond to fruit shortage by relying more on leaves, flowers and insects, and by cutting daily travel distance and activities. Normal territorial behavior and other social activities evidently cannot be maintained during such lean periods when their major energy supply (succulent fruits) is absent. Figs are often available in the dry season, but their availability is seasonally unpredictable. Unpredictably low fruit availability in the dry season is probably a major ecological factor that, in part, limits gibbon distribution in seasonal monsoon climates.

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