Recent researchers have drawn attention to fruit preferences in a variety of primates; for instance, in 1991, Davies noted that monogastric primates prefer the flesh of succulent, sugar-rich fruits, while colobines more often consume and digest large seeds of drier fruits. I compare fruit preferences in four sympatric primates—Hylobates lar, Macaca fascicularis, Pongo pygmaeus, and Presbytis thomasi—which I studied concurrently at the Ketambe Research Center in northern Sumatra. I collected continuous focal animal data during 40--50 hr per taxon per month for 10 months and recorded fruit species size, pH, and descriptive attributes, including degree of ripeness, hardness, pericarp type, and number of seeds. The langurs prefer dry fruit seeds while the monogastric primates more often consume acidic, succulent fruit flesh. Further, H. lar, M. fascicularis, and P. pygmaeus vary significantly in preferences for fruits vis-à-vis the characteristics examined.

KEY WORDS: Sumatran primates; seed predation; fruit consumption; dietary specialization.

INTRODUCTION

Davies et al. (1988; Davies, 1991; Kay and Davies, in press) brought attention to the importance of fruit in Asian colobine diets. They contrast

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frugivory in langurs with that reported by other authors for monogastric primates (Leighton and Leighton, 1983). They note, for example, that langurs favor dry fruit seeds, while monogastric primates prefer ripe, succulent, sugar-rich fruits with seeds that are swallowed and pass through the gut undigested. Differences in fruit choice are related in large part to gut specializations.

I will describe and compare specific fruit preferences among four sympatric Asian primate species. I report results from a one-year study of feeding behavior of *Hylobates lar*, *Macaca fascicularis*, *Pongo pygmaeus*, and *Presbytis thomasi*. I collected data on fruit-feeding events concurrently at a single site in a similar manner for all primate species. These data facilitate statistical comparisons of fruit type preferences among the species and allow evaluation of differences in feeding strategies in one study area. Results of this study lend support to the distinction between monogastric and polygastric primate frugivory suggested by Davies *et al.* (1988; Kay and Davies, in press), and further, indicate differences in fruit preferences between sympatric monogastric primates.

**METHODS**

*The Study Area*

I conducted research between August 1990 and July 1991 at the Ketambe research station, in the Gunung Leuser National Park, Sumatra, Indonesia. The study area is approximately 3.5 km² of mostly primary lowland rain forest circumscribed by the Ketambe and Alas Rivers in the north, and by mountainous escarpments of the Barison Range in the south. Rijksen (1978) and van Schaik and Mirmanto (1985) describe the site in detail.

Five of seven primate species at Ketambe have been studied, and research at the station has been more or less continuous for the past two decades (Rijksen, 1978; Schurmann, 1981; van Noordjwick, 1985; van Schaik, 1985; Sugardjito, 1986; Aureli, 1992; Cant, 1992; Palombit, 1992; Mitra-Setia, in preparation; Sterck, in preparation). There is an established, maintained system of trails, and many of the primates are well habituated. The forest flora and its phenology have been examined extensively (Manullang, 1990, in preparation; van Schaik, 1986). Therefore, Ketambe is an outstanding site for studies of community ecology in general, and primate synecology in particular.