

SONG FREQUENCY AND SONG FUNCTION OF JAVAN GIBBONS (*HYLOBATES MOLOCH*)

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While most gibbons produce vocal duets involving both adult males and females, Javan gibbons (*Hylobates moloch*) are distinctive because adults of each sex sing separately, with females producing the most songs. The goals of our study are to examine the factors affecting calling frequency such as weather and food availability, and to test hypotheses about the functions of gibbon songs in relation to territorial defense. We investigated 2 habituated Javan gibbon groups using a combination of behavioral observations, ecological monitoring and field experiments in the Gunung Halimun-Salak National Park, Indonesia, from July 2009 to February 2010. The average number of female songs was 0.3 per day and singing activity peaked between 7:00-8:00 hr. The median duration of the songs was about 11 minutes. Javan gibbons seemed to avoid singing during rain or fog, and monthly song frequency appeared to be positively related to food availability. Playback experiments induced responses of female leading in approach to neighbor songs, while males led approach to stranger songs. Moreover, the gibbons have reached the playback sites again in the same days. We conclude that Javan gibbons may regulate singing behavior according to environmental conditions and singing may be functionally associated with resource defense. The results also suggest that roles of male and female Javan gibbons in territorial defense may be different.

Keywords: gibbon, song, frequency, playback