

GIBBON SONG AND INDIVIDUAL IDENTIFICATION

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Gibbon song is found specific in species, population, group, sex, and individual. It is also found the variability of individual great-calls of moloch gibbons is significantly lower within one population than among any two populations. After a comparative analysis of male song of western black crested gibbons (*Nomascus concolor*), we found coda, produced at the end of the female's great call, is the most stable note types in male songs. So we compiled a total of 184 codas from 48 songs of 18 males from 5 sites of three subspecies: *N. c. concolor* in Ailao Mountain (3 sites), *N. c. jingdongensis* in Wuliang Mountain (1 site), and *N. c. fuvogaster* in Yongde Daxueshan Mountain (1 site). Principal component analysis shows that individual male gibbons inhabiting the same site can be clearly distinguished, but can not be distinguished among the three sites of *N. c. concolor* and even between the subspecies *N. c. concolor* and *N. c. jingdongensis*. It suggests that male gibbons develop specific coda characters for individual identification while neighboring distributed, but the similar characters can be owned by the groups insulated against them. Our results also indicate that *N. c. concolor* and *N. c. jingdongensis* had a relatively closer relationship than *N. c. fuvogaster*, but the differentiation between populations *N. c. fuvogaster* and the other two is not distinct.

Keywords: *Nomascus concolor*, male song, inter-group relations, subspecies