AN ANALYSIS OF SOUND SPECTROGRAM TO STUDY GROUP STRUCTURE OF SOUTHERN-YELLOW CHEEKED GIBBON (*Nomascus gabriellae*) IN CAT TIEN NATIONAL PARK

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Summary

In order to contribute to the conservation of yellow-cheeked crested gibbons and to supplement the database of acoustics of gibbons, we conducted a study to determine the sound spectrum and structure yellow-cheeked crested gibbon (*Nomascus gabriellae*) by the bioacoustic method. The study was conducted at Nam Cat Tien Subdivision, Cat Tien National Park, from July to October 2016. The method of using automated recorder and bioacoustics analysis were used to determine the sound spectrum and structure of gibbon group. Results showed that gibbons groups structure can be mainly in 5 cases: (1) male gibbon, (2) male gibbon and 01 female gibbon, (3) 01 male gibbons and 02 adult gibbons; (4) 01 male gibbons, 01 female gibbons and 01 sub-adult gibbons; (5) 02 male gibbons, 02 female gibbons and 01 sub-adult gibbons. The most quequently recorded gibbon group structure is 01 male and 01 or 02 female. The sound frequency of male gibbons ranges from about 800 kHz to 2000 kHz; the sound frequency of female gibbons is very high, ranging from about 400 kHz to about 4900 kHz.

Keywords: *Southern yellow-cheeked gibbon, Nomascus gabriellae, group structure, bioacoustics, Nam Cat Tien.*