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### THE SWIFTLET POPULATION OF NIAH CAVES

Charles M.U. Leh and Sim Lee Kheng

#### INTRODUCTION

Birds' nest swiftlets in Niah Caves were first counted in 1935 by E. Banks, the then curator of the Sarawak Museum. The population then was a staggering 1.7 million although no differentiation was made between the glossy-moss and black-nests. Other counts were made by Medway in 1958 and 1962 where the population was 1.5 million. Huntings Technical Services Consultant counted some 1.3 million swiftlets in Niah in 1974 at a time when large scale oil palm plantations were established along the Miri-Bintulu Road. Since 1987 a number of counts were made jointly by the Forestry and Sarawak Museum Departments.

The sharp increase in value of birds' nest in the late 1980's has caused a serious increase in poaching activities on the nests in Niah Caves. Despite the first ban of nest harvest in Niah Caves from 1989 to 1991, the swiftlet population did not increase in subsequent years. In 1993, a second two-year ban on nest harvests was placed on birds' nests in Niah Caves. This second ban expired in the third quarter of 1995. During the ban period, there were five groups of Forestry Enforcement and Field Force staff stationed at each of the cave entrances in Niah complex.

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*by*

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The present study was conducted in April 1995 jointly by the Forestry and Sarawak Museum Departments' staff consisting of the same field supervisors as in the earlier census. Subsequently, Sim and Paschal (1999) reported on the volume of nest collected from the Niah Caves. These data were used for the back calculation of bird population present. The site was revisited in October 2001 to reassess the present situation of

birds in West Mouth and Lubang Tulang for a comparative study. The population level was reviewed and compared with previous studies.

## MATERIALS AND METHODS

The methodology used in the present census is similar to those of earlier studies and reports. The study was carried out by two teams of field officers from the Sarawak Museum and Forestry Department respectively. As there are five large entrances in the Niah Caves complex, the teams slept overnight at West Mouth inside the cave and moved to the respective entrances to carry out census works as soon as the birds started to leave the cave at 0530 hours. Each team consisted of five staff including a team leader. Time counts were synchronised with the use of a two-way radio communication equipment. The overall field supervisor was C. Leh who was assisted by Wildlife Officer Francis Gombek. The targeted caves under this study are Lubang Kuala (West Mouth), Lubang Tulang, Lubang H Angus, Lubang Taie Menimbun and Lubang Gan Kira which have been previously described (Leh and Hall, 1996). It is not possible to distinguish between the different species of swiftlets during their flight motion at high altitude. The percentage of the different species were estimated based on inspections of nest sites inside the cave. Bats were not counted in the present study.

Counts were made from positions close to the entrance where by lying on the ground and looking up, the whole entrance is in view as birds fly past against the lighted sky. The number of birds entering and leaving were counted for two minutes in every fifteen minutes, the count being halved to give minute rates later. This rate is then multiplied by the time duration to give the number of birds that flew past. When there were too many birds entering or leaving, or when counts exceeded 450 per two minutes, the number of birds were estimated every two seconds and multiplied by a factor to give