

**ANTIMICROBIAL ACTIVITY AND COMPOSITION  
ANALYSIS OF WHITE EDIBLE BIRD NEST  
(*Aerodramus fuciphagus*)**

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## ABSTRACT

### ANTIMICROBIAL ACTIVITY AND COMPOSITION ANALYSIS OF WHITE EDIBLE BIRD NEST (*Aerodramus fuciphagus*)

Edible bird nest (EBN) is well known for super meals and potent medicine as well as inner and outer of beauty enhancer. This study was performed with the aims to determine the effectiveness of different solvent extraction towards antimicrobial activity in edible bird nest of white nest swiftlets (*Aerodramus fuciphagus*) against two food-borne pathogens (*Escherichia coli* and *Staphylococcus aureus*) and composition analysis of EBN. The EBN extracts at 100, 75, 50 and 25 % concentration were prepared using solvent extraction method in hydrochloric acid, sodium hydroxide and distilled water. The agar disc diffusion method was employed to examine antimicrobial activity by measuring the zone inhibition of various concentration of EBN extract. The antimicrobial activity of HCl extract of EBN at 100 % concentration was more effective towards *S.aureus* (8 mm and 9 mm) compare to *E.coli*. The NaOH extract of EBN showed the zone inhibition of 9 mm towards *S.aureus* and *E.coli*. Meanwhile, the EBN extract of distilled water did not show any zone inhibition against *S.aureus* and *E.coli*. The composition analysis was found in EBN i.e., moisture content (13.33 %), ash content (3.84 %), volatile matter (1.89 %) and fixed carbon (80.94 %). Meanwhile the whole EBN was revealed the presence of proteins and amino acids in xanthoproteic acids test.