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**ORIGIN OF HUNGARIAN NATIVE CHICKEN BREEDS USING  
MITOCHONDRIAL DNA D-LOOP INFORMATION**

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In this study we assessed the maternal origin of six Hungarian indigenous chicken breeds (Hungarian White, Yellow, Speckled and Transylvanian Naked Neck Black, White and Speckled breeds) using mitochondrial DNA information. Furthermore, sequences of Hungarian chickens were compared to the D-loop chicken sequences annotated in the GenBank and to nine previously described reference haplotypes representing the main haplogroups of chicken.

The first 530 bases of D-loop region were sequenced in 74 chickens of 9 populations. Eleven haplotypes (*HIC1-HIC11*) were observed from 17 variable sites. Three sequences (*HIC3*, *HIC8* and *HIC9*) were found as unique to the Hungarian chicken populations against the NCBI GenBank.

Hungarian domestic chicken mtDNA sequences could be assigned into three clades and probably two maternal lineages. Results indicated that 86 % of the Hungarian haplotypes are related to reference sequence likely originated from the Indian subcontinent while the minor part of our sequences presumably derive from common in South East Asia, China and Japan.

**Keywords:** Hungarian native chickens, origin, mitochondrial DNA