

GENETIC STRUCTURE AND DIFFERENTIATION OF *HYLA SAVIGNYI* FROM THE SOUTHERN POPULATION IN ANATOLIA

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*Genetic diversity and population structure of two populations of *Hyla savignyi* in Southern Anatolia (İskenderun; Hatay and Bozova; Şanlıurfa) were evaluated using twelve microsatellite loci. The alleles per locus ranged from 3 (Ha-B5R3) to 15 (Ha-T67) for İskenderun (Hatay) and ranged from 2 (Ha-B5R3) to 17 (Ha-T67) for Bozova (Şanlıurfa). The mean number of private alleles was found to be 2.5 and 1.83 for İskenderun (Hatay) and Bozova (Şanlıurfa), respectively. Genetic diversity parameters are nearly the same for the two localities. All two populations of *H. savignyi* showed no significant excess heterozygosity ($p > 0.05$) according to three bottleneck test models (IAM, SMM, and TPM) (Table 4). The SMM and TPM found significant heterozygosity deficiency in the İskenderun (Hatay) population and the Bozova (Şanlıurfa) population according to the SMM model. According to Structure analysis, two distinct clusters exist in Southern Türkiye. Previous researchers in *H. savignyi* mention cryptic speciation and the occurrence of two lineages in the Middle East. This study is the first population genetic study that revealed genetic differences and similarities between these two lineages.*

Key words: microsatellite, Anatolia, cryptic species, *Hyla savignyi*, population genetic

ГЕНЕТИЧНА СТРУКТУРА ТА ДИФЕРЕНЦІАЦІЯ *HYLA SAVIGNYI* З ПОПУЛЯЦІЇ В ПІВДЕННІЙ АНАТОЛІЇ

Генетичне різноманіття та популяційну структуру двох популяцій *Hyla savignyi* у південній Анатолії (Іскендерун; Хатай та Бозова; Шанлиурфа) оцінювали за допомогою дванадцяти мікросателітних локусів. Кількість алелів на локус варіювала від 3 (Ha-B5R3) до 15 (Ha-T67) для Іскендерун (Хатай) і від 2 (Ha-B5R3) до 17 (Ha-T67) для Бозова (Шанлиурфа). Середня кількість окремих алелів становила 2,5 і 1,83 для Іскендерун (Хатай) і Бозова (Шанлиурфа), відповідно. Параметри генетичного різноманіття майже однакові для обох місцезнаходжень. Обидві популяції *H. savignyi* не по-

казали значного надлишку гетерозиготності ($p > 0,05$) згідно з трьома моделями тестування етапу вкрай низької чисельності популяції (IAM, SMM і TPM) (табл. 4). SMM і TPM виявили значний дефіцит гетерозиготності в популяції Іскендерун (Хатай) і в популяції Бозова (Шанлиурфа) відповідно до моделі SMM. Згідно зі структурним аналізом, у Південній Туреччині є два чітких кластери. Попередні дослідники *H. savignyi* згадують про загадкове видоутворення і появу двох ліній на Близькому Сході. Це перше популяційно-генетичне дослідження, яке виявило генетичні відмінності та подібності між цими двома лініями.

Ключові слова: мікросупутник, Анатолія, криптичний вид, *Hyla savignyi*, популяційно-генетичний.

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