



UNIVERSITY OF LIFE SCIENCES "KING MIHAI I" FROM
TIMISOARA
"YOUNG PEOPLE AND MULTIDISCIPLINARY RESEARCH
IN APPLIED LIFE SCIENCES"



"Young people and multidisciplinary
research in applied life sciences"

13-14 November, 2025

STUDY ON THE STRUCTURE OF THE EQUINE POPULATION IN HOUSEHOLDS

Avram Sergiu-Ioan, Silvia Elena Erina, Simona Baul, Flavia Bochiş,
Ludovic Toma Czisster*

*Faculty of Bioengineering of Animal Resources, University of Life Sciences "King
Mihai I" from Timișoara, Calea Aradului 119, 300645, Timișoara, Romania*

Abstract:

The aim of the study was to demographically describe the equine populations (horses and donkeys) from the Banat region (Arad, Caraș-Severin, Hunedoara and Timiș counties) and the Szeklerland (Covasna, Harghita and Mureș counties). The database was set up from the National Authority for equine registration on December 2024. This database contained information regarding species, breed, gender, origin, and date of birth. A total of 41,958 animals were divided into seven groups: foals (up to 1 year of age), yearling (1-3 years), youngstock (3-7 years), adult (7-12 years), senior (12-18 years), old (18-25 years), and very old (over 25 years). Out of the total animals, 98% were horses and 2% donkeys. The common equine, without known origin was the main horse in households (96%). Except for the common equine, there were 57 horse breeds (Lipițan, Nonius etc.) and 2 donkey breeds (Andalusian, Catalan) found. Gender ration was comparable with 42% females and 58% males. The most equines were autochthonous (99%) and only 1% were bought from other countries. In Banat region were 39% of the equines, while in Szeklerland 61%. The equines between 3 and 18 years of age comprised 54% of the total animals in the study. Horses were 4.89 years older than donkey ($p < 0.001$). Common equines were 0.55 years older than those with known breed ($p < 0.001$). Gender and country origin had no effect on equine age ($p > 0.05$). The Banat region equines were 2.54 years older than those from Szeklerland ($p < 0.05$). County of origin had a significant effect on equines age ($p < 0.001$). The oldest equines were in Arad, Timiș and Hunedoara, while the youngest in Harghita and Mureș.

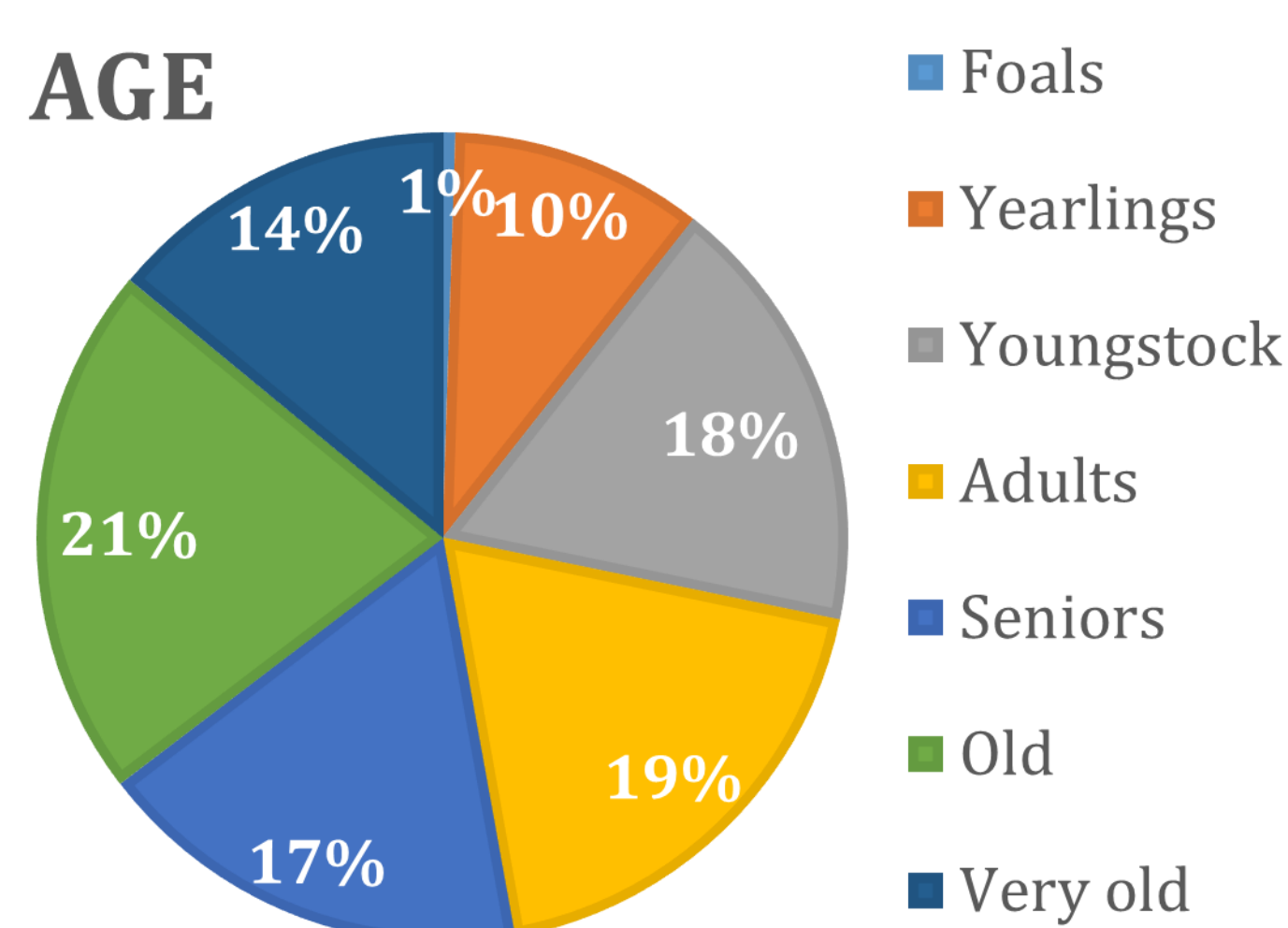
• Material and method

- ✓ Information from the National Authority regarding the identification of horses, at December 31st, 2024, regarding species, breeds, gender, origin, date of birth
- ✓ Groups of equines: foals (up to 1 year of age), yearling (1-3 years), youngstock (3-7 years), adult (7-12 years), senior (12-18 years), old (18-25 years), and very old (over 25 years).
- ✓ Total of 41,958 animals from 7 counties: Banat region (Arad, Caraș Severin, Hunedoara, Timiș) and Seklerland (Covasna, Harghita, Mureș)

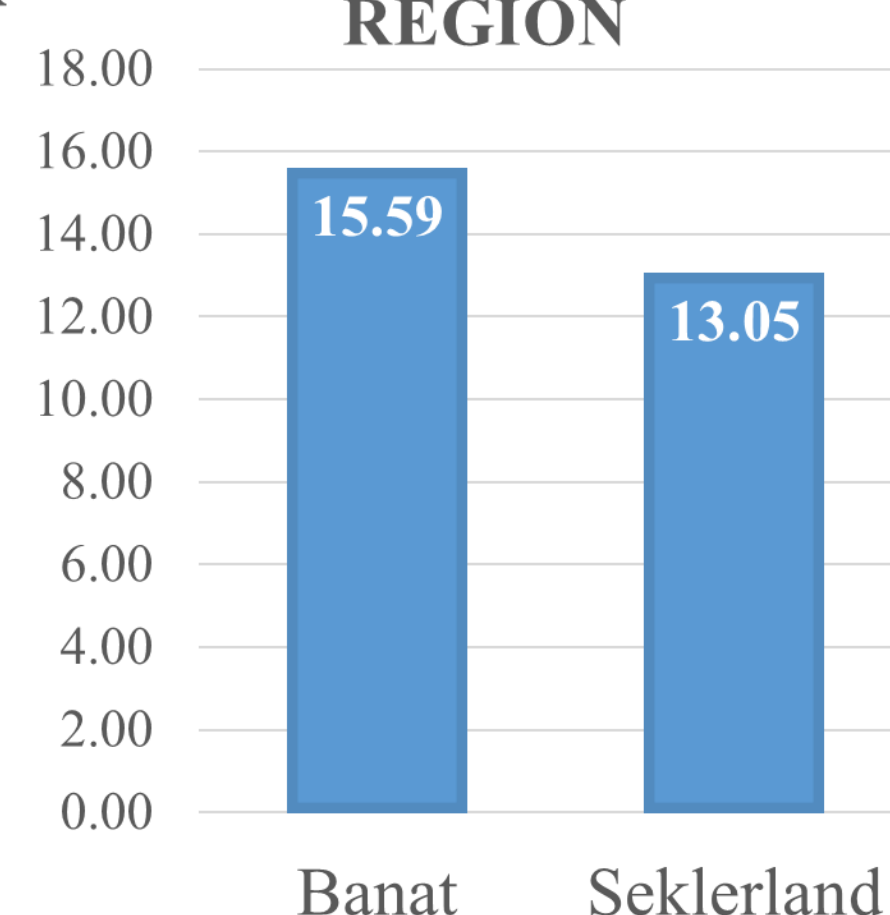
• Results and discussions

Age of equines by factors

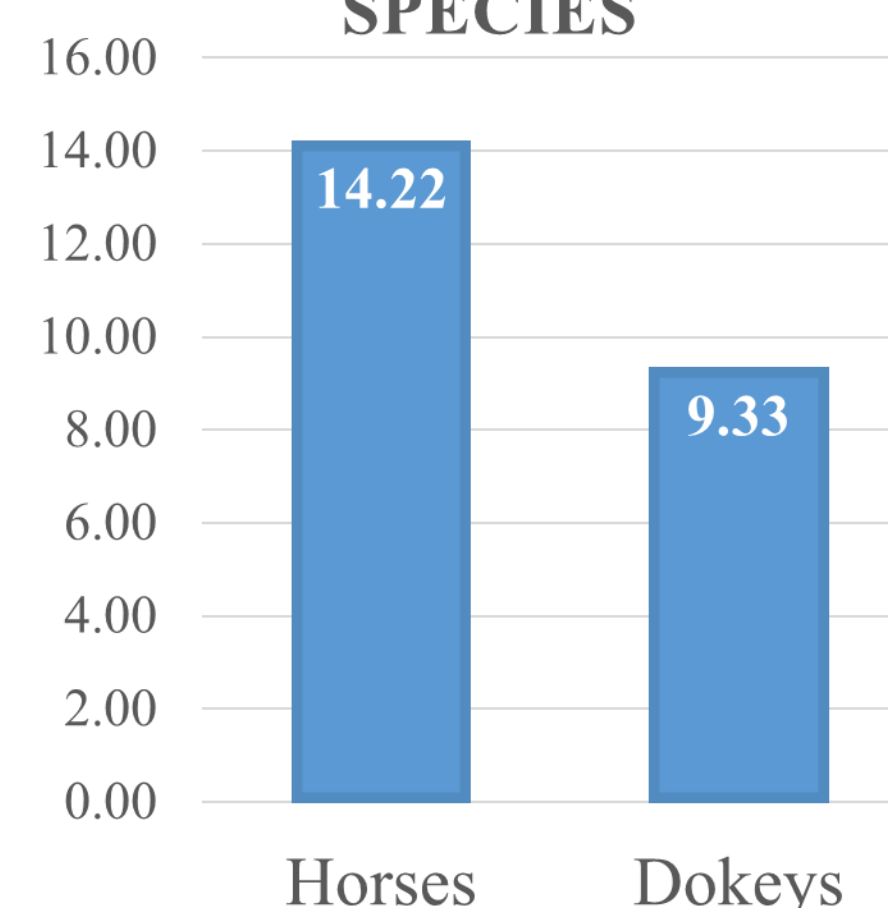
AGE



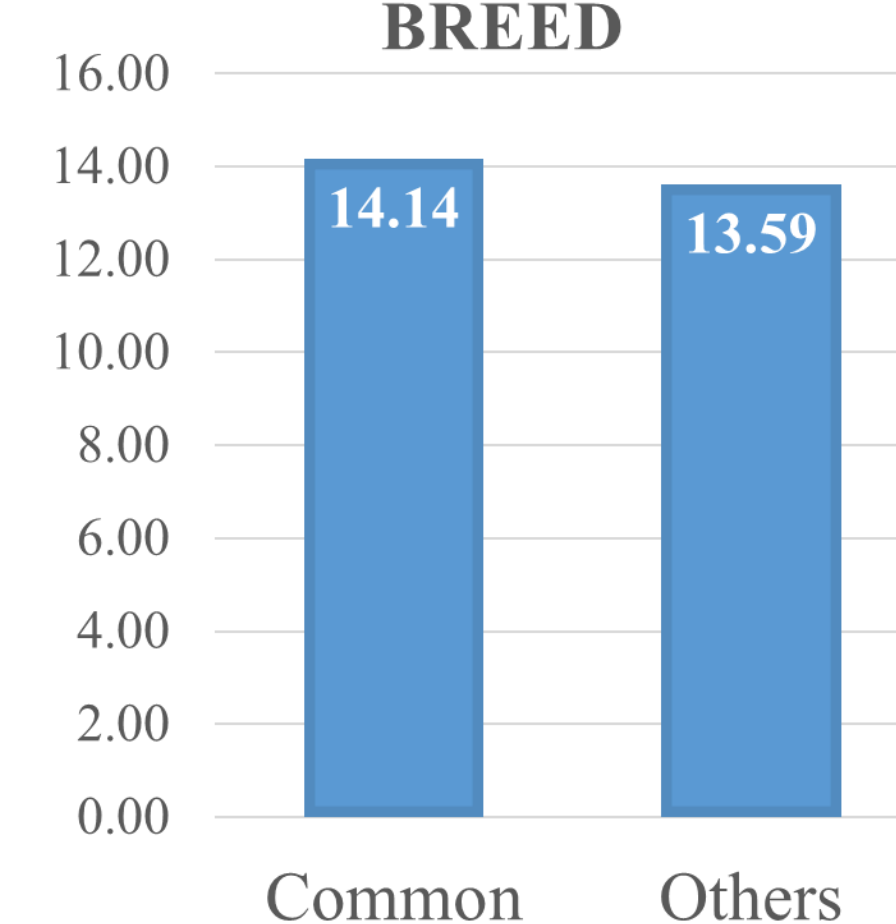
REGION



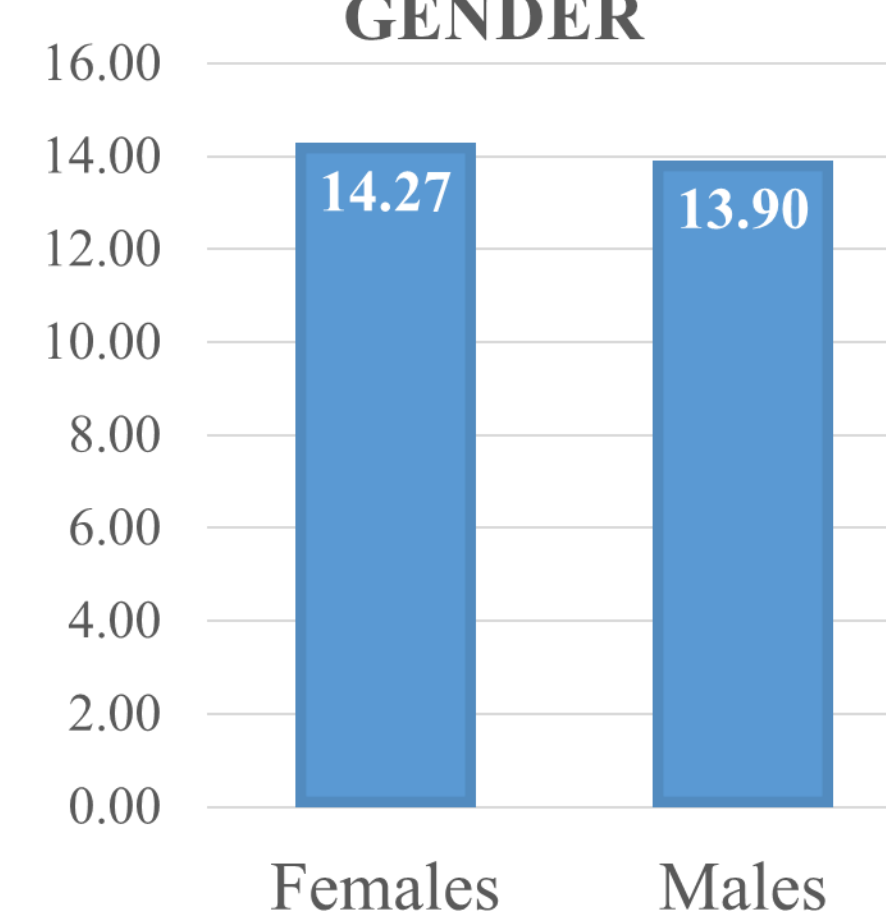
SPECIES



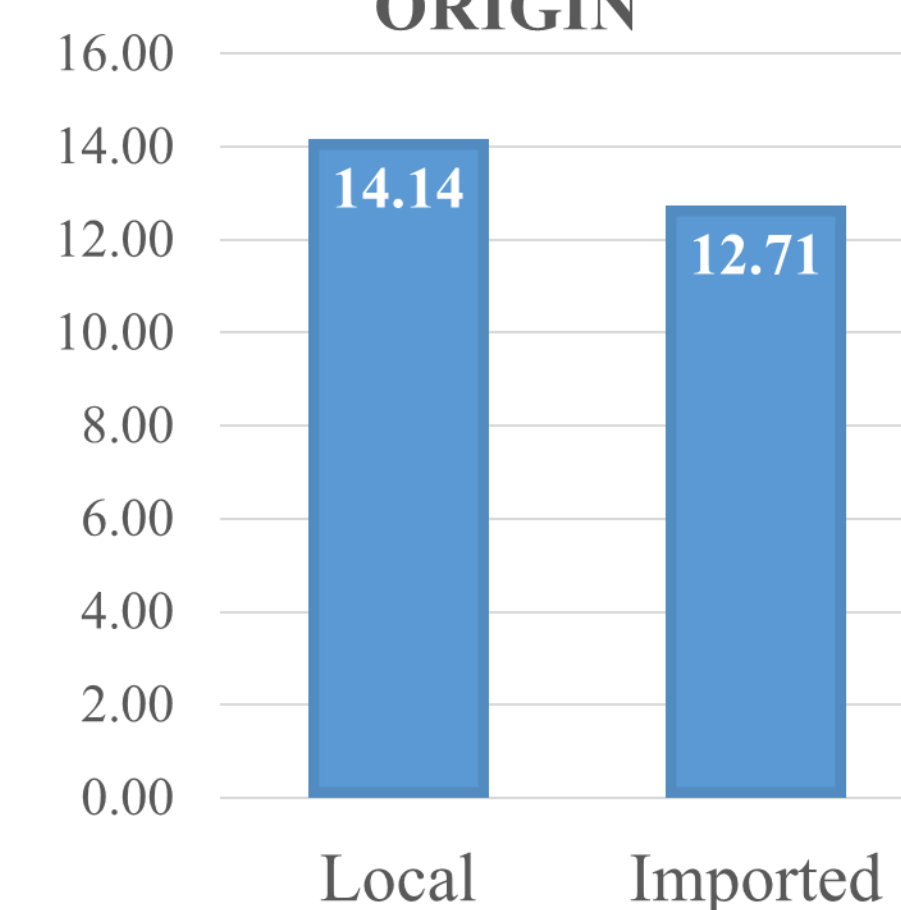
BREED



GENDER



ORIGIN



• Conclusions

- Total equine population was made of 98% horses and only 2% donkeys
- Most equines belong to the common breed, without known origins (96%)
- Only 1% of equines were imported, 99% were autochthonous breeds
- Gender ration was relatively equal 42% females and 58% males
- The highest number of equines were in Harghita (29%), Covasna (20%) and Arad (16%), while the lowest number in Caraș-Severin (4%) and Hunedoara (8%).
- The highest ratio of animals consisted of youngstock, adults and seniors (54%), followed by old animals (21%).
- Horses were older than donkeys (14.22 vs. 9.33 years), females were older than males (14.7 vs. 13.90 years), imported animals were younger than autochthonous (12.71 vs. 14.14 years), Banat region equines were older than Seklerland ones (15.59 vs. 13.05 years)
- A significant effect on equine age had species, breed, egion and county
- Besides common breed there were other 59 autochthonous and imported breed in the studied equine population, such as: Lipizzaner, Nonius, Hidegveru, Ardenez, Polski kon zimmokrwisty, Shagya Arab and Arabian purebred for horses and Andalusian and Catalan for donkeys

*Corresponding author's email: ludovicczisster@usvt.ro