



HISTORY AND DYNAMICS IN THE DEVELOPMENT OF FAMILIES IN THE THOROUGHBRED HORSE POPULATION IN BULGARIA. EFFECT OF MARES IMPORTED FROM ROMANIA.

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ABSTRACT The pedigrees of total of five Thoroughbred mares imported from Romania were studied. Two of them become originators of families. The development of these families is extremely dynamic, for the researched period covered by the overall development of the Thoroughbred population in Bulgaria, reaching 5th - 6th generation. Although a limited number of imported mares, they had played a crucial role in the formation of the Thoroughbred population in our country. A total number of mares used for breeding from the two families is 121 mares, 16 of which are now in active breeding age.

Key words: breeding, thoroughbred, family structure.

The Thoroughbred horse population is formed by the import of stallions and mares from the former USSR in 1953. At later stages import from Poland, and Romania followed on the basis of which the dynamic development of the population as a whole began.

First analysis of the Thoroughbred horses was made by Bruce Lowe. He numbered the families on the basis of winners of three classical prizes descending from them. Thus family No. 1 has the greatest number of winners and their total number is 43. Lowe found out that 9 of them appear many times in the pedigrees of the best racing horses. His work was published in 1895 after his death. Similar was the work of Herman Goos, who published in 1885 detailed tables with pedigree of racing horses and he added 7 more families so that their total number became 50.

Bobinski and Zamoyski(1953) (1) summarized the families world-wide. They found that some of the families classified by Lowe have the same grandparents and hence they combined them. At the same time they added new

families which represented their global significance for the development of the Thoroughbred horse. Thus the total number of families became 74, and afterwards ones originating from the USA, Australia and Poland have also been added.

Cunningham et al (2001) (2) analyzed the pedigrees of horses included in volume I of the General Stud Book and he found out that 30 basic mares contributed for the development of 94% of the families that exist today world-wide.

In 1989 Bochkarev (3) described in details the families of the Thoroughbred horse in the former USSR. In his introduction he analyzed from a historical point of view the significance of families from that breed on a world-wide scale. In that aspect he reported that mares originators of families – Old Morocco Mare, Penelope and Pocahontas are equal in significance to the originating stallions – Eclipse, Herod and Matchem.

In general, the significance and role of families in horse-breeding have been the object of research of many authors. Mellissen and Remijuse (2003)(4) regarded families from the Holsteiner horse population as constant factors

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in the breeding process and the lines as existing due to the families.

Schridde (2000) (5) gives great importance to the family groups in Holstainer horse breed. He described in details the development and status of the families, and shows the significance of the elite stallions, born by broodmares belonging to the appropriate families.

The family structure of reared cultural horse breeds in Bulgaria has been analyzed in details by a number of authors, about the Danube breed - Karaivanov 1963, (6), Karaivanov et al. 1989 (7); about the East Bulgarian breed – Dobrev 1967 (8), Dobrev and Barzev 1986 (9); about the Pleven breed – Tzankov (1989) (10); about the Arab breed – Karaivanov et al. 1967 (11).

The Thoroughbred population in our country has been acknowledged as such and approved in ISBC in 2005 and currently the publication of volume II of Bulgarian Stud Book is forthcoming. With regard to that we set the aim to study historically the formation of families and the effect of mares imported from Romania. The study covers the period 1953 – 2009 and comprises all mares included in volume I and II of the Bulgarian Thoroughbred Stud Book (12).

MATERIALS AND METHODS

For the development of the set tasks, we used records of Studs: “Kabiuk” “Klementina”,

“Stefan Karadzha” newly created private farms, and the database of National association of horse breeding, stud documents and Annual registers of the stud farms (1953 – 2009)(13) and Volume I of the Bulgarian Thoroughbred Stud Book. The survey was conducted personally, in which we used routine zootechnical methods of observation and analysis.

RESULTS AND DISCUSSION

A total of 5 mares have been imported from Romania of which two became the originators of families. **Fig. 1a, 1b and 1c** present the three main branches of Halima mare. It was included in the stud nucleus of Kabiuk Stud in 1958. Halima is from the stallion Epigon, who through Massine leads to Eclipse (Darley Arabian). Massine was an excellent racing horse who in 1924 won the world renowned prize Arc de Triomphe and in 1932 and 1936 he is within the group of the best stallions, producers of France. On the dam line through Dark Ronald and Touchstone she is also related to Eclipse. For its entire breeding activity Halima produced a total of 14 foals, of which 9 fillies. Four of these – Chehia and Choha by Czafrang, Reha by Rupor and Grechiha by Grafolog formed the basic branches of the family. The family development through Chehlarka and Kolhoda is to second generation and it has no significant importance.

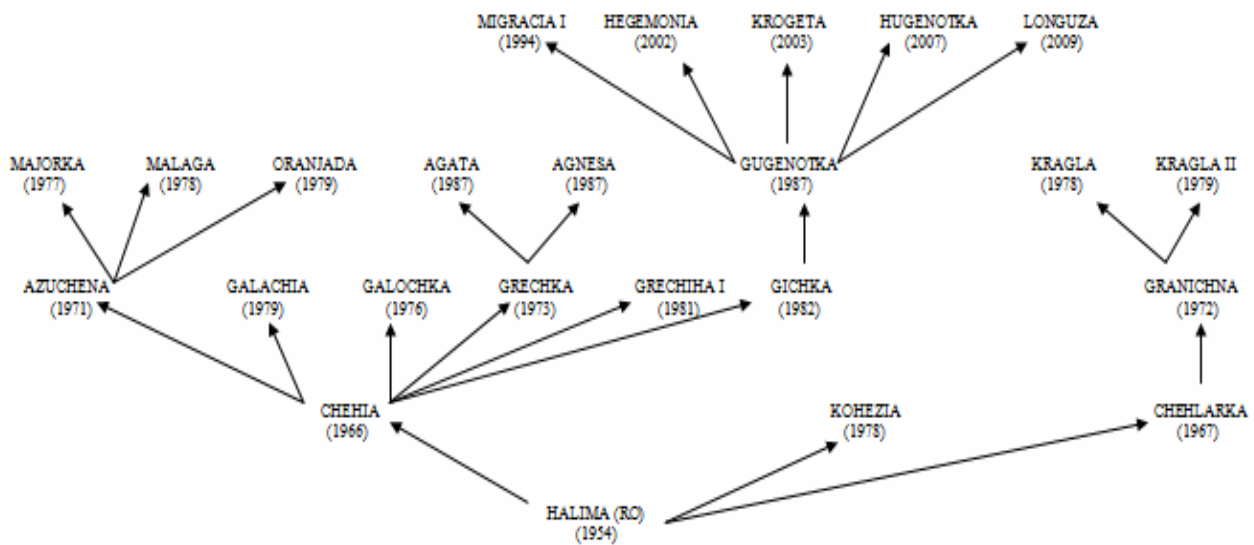


Fig. 1a

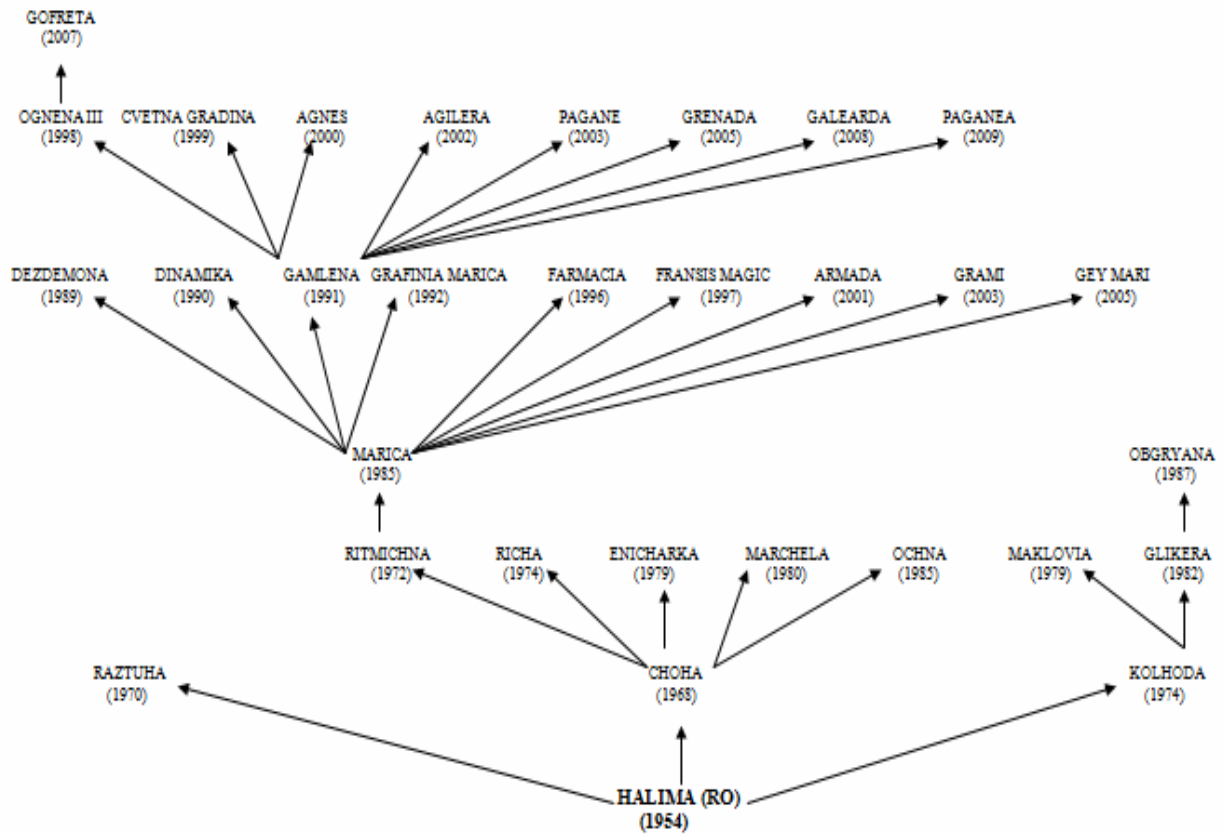


Fig. 1b

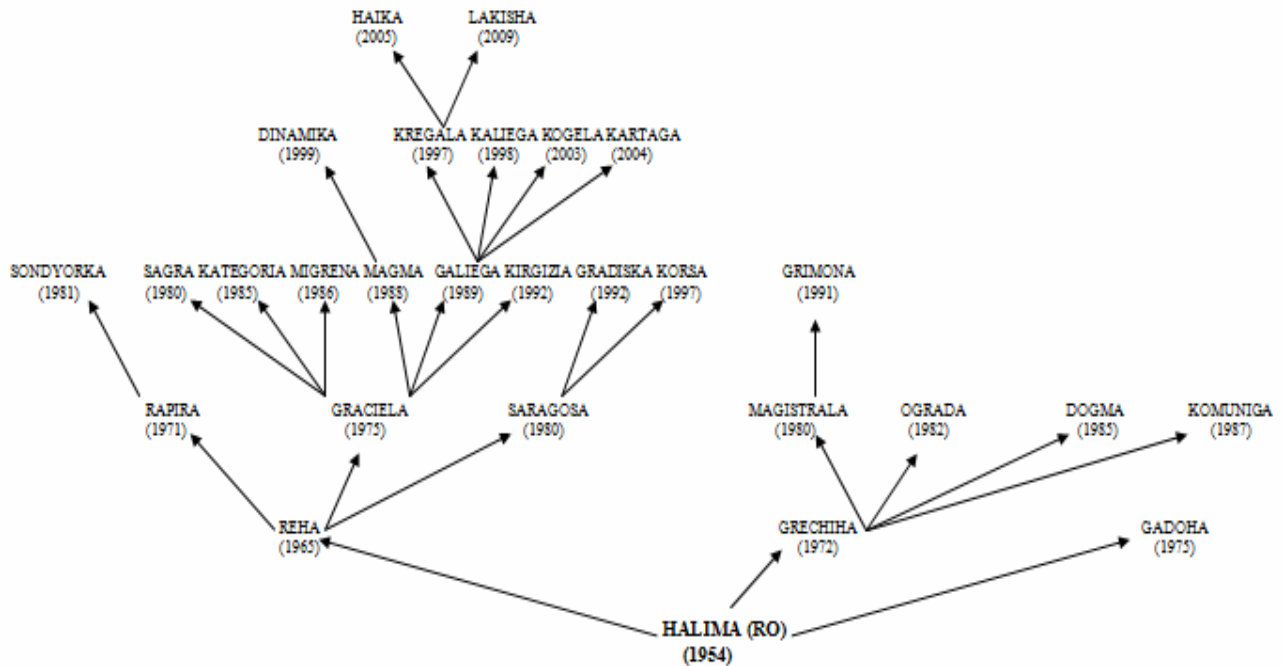


Fig. 1c

Cehia (Fig. 1a) is one of the great and developing family branches. She produced 6 daughters, of which three are of significance – Azuchena (Aster), Grechka (Grafolog) and Gichka (Gerold). With the first two the family developed up to fourth generation and through Gichka – Gugenotka – to the fifth one. The best developing branch is that of the Choha mare. Out of its five daughters only Ritmichna mare is of significance, who through Marica – Gamlena continued the development of the family to the fifth generation. The third big branch of Halima is through the Reha mare, who through her daughters Rapira, Graciela and Saragosa continued the family to the sixth generation (Haika). The branch of Grechiha developed to the fourth generation and there are no descendants from the last representative Grimona mare. For the entire studied period from the family of Halima 80 mares have been used for breeding, of which the greatest was the number from the Choha branch – 24. Today mares Migracia I, Hegemonia, Gugenotka, Ognena III, Gamlena, Kregala, Kogela and Haika are included in breeding.

The development of the Nurlia family is presented in Fig. 2a and 2b. She was included

for breeding in 1958 in Kabiuk Stud. On the sire line – Martaloez, she comes from the world renowned stallion Phalaris, who through Birdcatcher leads to Eclipse. Nurlia's Dam - Nuna II comes from the Dark Ronald branch. From her three daughters – Reneta and Rona from Rupor and Manna from Makar, Reneta is the only one of significance. Reneta (Fig. 2a) has four daughters – Armatura, Sara, Marina and Mariela. In fact, following the family development we can assume that Reneta and not Nurlia is the originator of the family. Armatura continued the development of the family through Nagayka and Galiera reaching to the sixth generation – Miss Goliat - Gramotevitsa. Impressing is the progeny after Mariela – in three breeding generations only a total 22 mares have been used. Of all her five daughters – Gvatemala, Gameta, Gama, Gamza and Kama, only Gama left no breeding mares. From the Nurlia family a total of 41 mares have been used for breeding, of which 2 are in the sixth generation. Today the family is represented by 8 mares – Gramotevitsa, Pergola, Kaligrafia, Gugutka, Kalga, Heringa, Hronika and Gergelia.

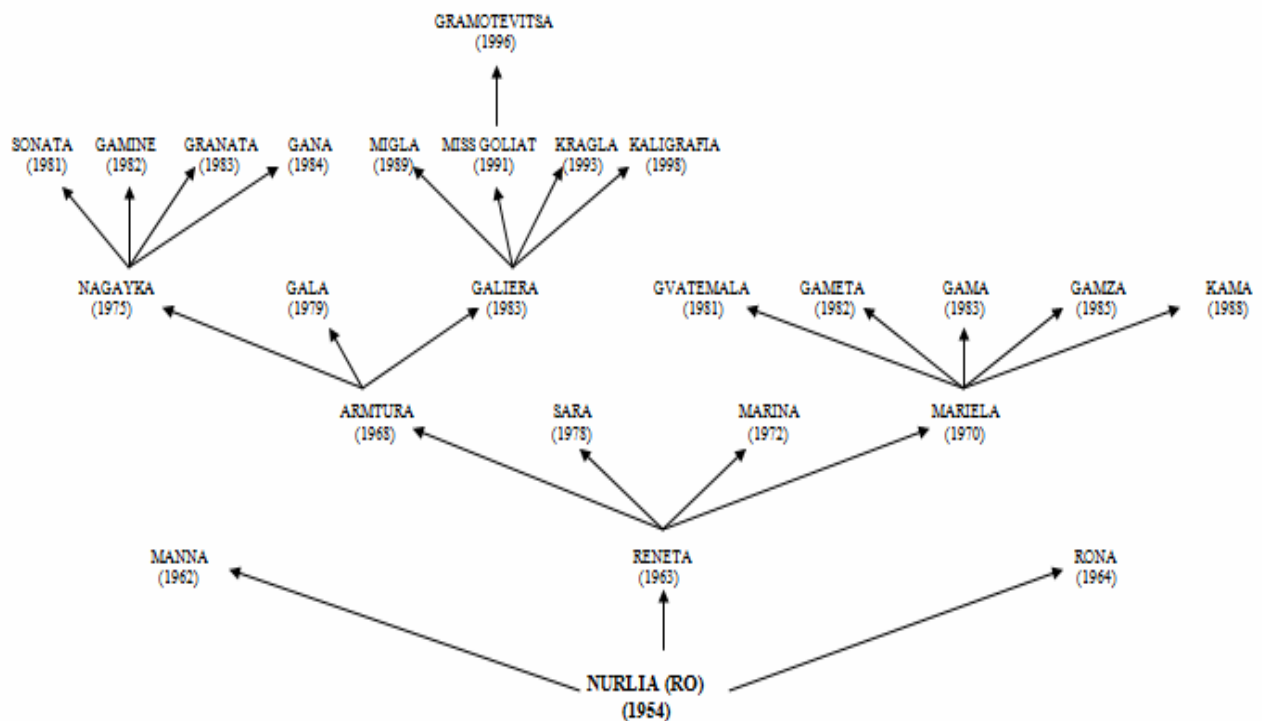


Fig. 2a

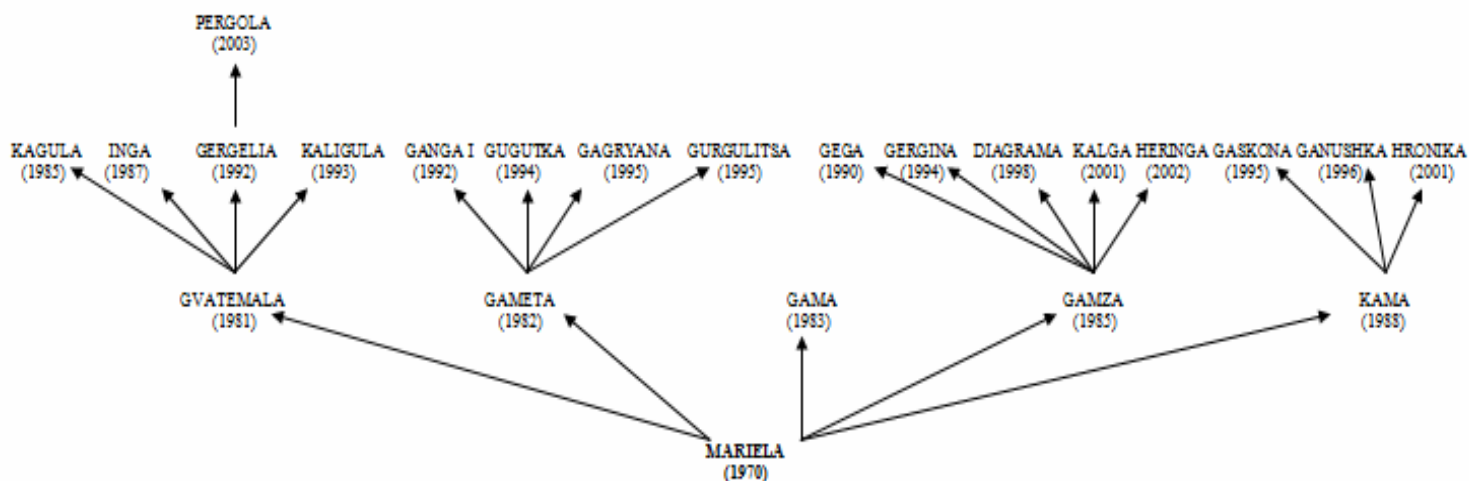


Fig. 2b

CONCLUSION

The analysis of the development of these two families revealed that although a limited number of mares had been imported from Romania, they played a decisive role in the formation of the Thoroughbred population in our country. A total of 121 mares had been used for breeding purposes, divided in five generations, of which nowadays 16 are in active breeding age.

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