The American mink *Neogale vison* has been noted in Poland as an alien species for about 40 years. Its successful invasion caused that it now inhabits most of Poland. The colonization of Poland by this species began in the north-eastern part of the country, then it settled in western Poland and migrates southwards, where it is scarce or still absent. Genetic studies of wild and farm-bred American minks indicate their two origins which include the migration of wild individuals and running away of animals from the fur farms.

The process of colonization of new areas by American mink is still not fully recognized. It is not entirely clear whether the area is colonized by a small group of animals that increase in numbers in subsequent breeding seasons, or if there is a continuous influx of minks from neighbouring areas. In the first case, both the genetic differentiation of the newly created population and its genetic similarity to the neighbouring populations will be low. In the second case, the newly formed and adjacent populations will show a genetic similarity. Previous studies of the genetic differentiation of wild American minks showed the presence of at least four groups, i.e., subpopulations occurring in western and north-western, central and north-eastern Poland.

The aim of the study was the initial verification of the hypothesis that the genetic differentiation of the feral American mink population in the south-eastern part of Poland is decreased. Genetic similarity of the population from this part of Poland with the feral minks from north-eastern Poland, middle Vistula and ranch minks was examined. Furthermore, the morphological variability of the American mink was determined on the basis of measurements of the body length and weight. Minks from fur farms are larger than wild animals. As a result of natural selection, feral individuals become similar in size and body structure to wild minks in successive generations.

As with the other feral American mink populations, the body weight and length of the studied feral population varied considerably. Body mass and length was 830-1800 g and 39.5-55.0 cm in males and 350-770 g and 33.0-40.0 cm in females, respectively. The body weight of males was higher than that of males from north-eastern Poland (650-1450 g). On the other hand, the body weight of females was twice lower than that of males and similar to the data from north-eastern Poland (450-900 g). For comparison, farm minks weigh at least twice as much as the studied animals (on average males weigh 3100 g, females – 1800 g) and they can reach body lengths of 48-68 cm in males and 40-50 cm in females.

Genetic analyses of 33 American minks that inhabit the studied area indicate the development of a separate population in this part of Poland. The American minks from south-eastern Poland are genetically different from the feral population from north-eastern Poland and ranch minks but they are similar to the population from the middle Vistula. The genetic structure of several minks indicated that they originate from the Vistula population. Among them, four minks were from Vistula valley and four were from the ponds located in the valleys of the lower part of the rivers that are tributaries of Vistula. The increased genetic variation of studied minks indicates that continuous influx of alien individuals is taking place, probably from two directions. Genetic similarity found between the studied American minks and the population of the middle Vistula suggests that the area was partially colonized by minks migrating eastwards along the Vistula's tributaries. Whereas, the population from Western Polesie could have arisen as a result of the mink migrating from eastern areas.