

A DEEPER SCREENING OF BAZNA PIGS GENOME REVEALED FIRST EVIDENCE OF THEIR ADMIXED GENETIC BACKGROUND

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Abstract

The evolutionary history of the European pig breeds is very complex. The current view is that several events might have contributed to their current genetic background. In Romania, Bazna pigs faced a sustained demographic decline, although in the past it was a widely spread breed. Despite its similar appearance with other white belted breeds, it is presumed to originate in 1872 crosses between Mangalitza and Berkshire. They were subsequently improved with British (e.g. Large White, Wessex etc) and German (e.g. Angler Sattelschwein). To obtain preliminary evidence of this possible admixed origin of Bazna pigs, we used two data sets: a mitochondrial set (Bazna versus commercial pigs versus Chinese or Vietnamese breeds) and an autosomal set (Bazna versus Mangalitza, Berkshire and Meishan breeds). The results highlighted a possible contribution of Mangalitza and Berkshire breeds to its current genetic background.

Key words: *Bazna pigs, DNA markers, admixed origin, conservation*