

Genetic erosion assessment through the re-collecting of crop germplasm. Counties of Arcos de Valdevez, Melgaço, Montalegre, Ponte da Barca and Terras de Bouro (Portugal)

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Summary

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Crop germplasm of common bean (*Phaseolus vulgaris* L.), rye (*Secale cereale* L.) and maize (*Zea mays* L.) was collected in past collecting missions (1977–1998) in the north-west region of Portugal, where the Peneda-Gerês National Park (PNPG) is situated, the target region of the research project “*In situ* conservation in genetic reserves and on-farm: Complementary strategies for the conservation of agrobiodiversity”. To assess genetic erosion in these traditional crops, germplasm collecting missions took place in 2005–2006, re-visiting the collecting sites of previous collecting missions, based on the earlier passport data, which, in most cases, contains the names and addresses of the farmers where collecting took place. The collecting team comprised Filomena Rocha and Eliseu Bettencourt in 2005, joined by Carlos Gaspar in 2006. In all, 158 samples of the three target species were collected, plus an additional 24 samples of other traditional crops, thus maximizing the use of resources. Despite a similar number of samples collected, 166 in 1977–1998 vs. 158 in 2005–2006, the comparison cannot be done simplistically. During the earlier collecting missions, the collectors gathered fewer samples representative of the vast diversity found, whereas now, where much less diversity was found due to the smaller number of farmers still active, the collectors gathered a larger number of samples, representing practically all traditional varieties still in use.

Key words: collecting, genetic erosion, germplasm, *Phaseolus vulgaris* L., *Secale cereale* L., *Zea mays* L.