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INVENTORY OF SOME CROP WILD RELATIVES IN THE *TELENEȘTI* AND *TEMELEUTI* PROTECTED AREAS

GANEA Anatolie*, https://orcid.org/0000-0002-8658-6879;
MOGÎLDA Anatolii, https://orcid.org/0000-0001-9159-6038;
CUȚITARU Doina, https://orcid.org/0000-0001-9956-8189

Moldova State University, Institute of Genetics Physiology and Plant Protection, Chisinau, Republic of Moldova,
**Corresponding e-mail*: *anatolie.ganea@sti.usm.md*

It is recognized that crop wild relatives from natural ecosystems represent an important genetic pool for improving the resilience of agricultural crops to climate change and ensuring food security. Unfortunately, this category of plant genetic resources remains insufficiently used in the promotion of sustainable agriculture at the national level. The purpose of the research is to elucidate the situation regarding the spread and health status of populations of crop wild relatives from forest ecosystems of the central area of the Republic of Moldova.

Some wild predecessors of fruit and horticultural crops served as objects of study: *Malus sylvestris*, *Cornus mas*, *Prunus avium*, *Pyrus pyraster*, *Asparagus officinalis*, *Corylus avellana*, *Fragaria vesca*, etc. The positioning of the populations was carried out with GPS navigators, along with the evaluation of some quantitative indices of the plants. Field investigations were carried out in the "Telenești" Natural Forest Reserve within the Forest District of the same name (plot 50, area 112 ha) which is located north of the village of Crăsnășeni, Telenești district and is part of the "Vila Telenești" forest body, as well as the "Temeleuți" Protected Area.

The "Telenești" Nature Reserve comprises stands consisting mainly of English oak (Quercus robur L.), with the presence of sessile oak (*Quercus petraea* Liebl.), small-leaved lime (*Tilia cordata* Mill.), ash (*Fraxinus excelsior* L.), and hornbeam (*Carpinus betulus* L.), though oak-hornbeam forests predominate. In the shrub layer, consisting of dog rose (*Rosa canina*), blackthorn (*Prunus spinosa*), hawthorn (*Crataegus monogyna*), dogwood (*Cornus sanguinea*), and others, the hornbeam was noted in considerable proportions. The height of plants of this species in the associations ranged from 2 to 5 m, and the stem diameter from 1 to 12 cm. Within a young population of *Cornus mas* (N 47°45'99.3, E 28°40'15.1, elevation 178 m), a clear

variation in fruit shape and size was observed. The tree species in question occur in fairly small proportions. Several specimens of *Prunus avium* were found to be drying out. At the edge of subplot 50 L, at elevations of 140 and 142 m, two *Malus sylvestris* trees were located (h=2–3 m, d=8–10 cm).

The "Temeleuti" protected area is located in the Călăraşi Forest District, on an area of 209 ha and contains valuable stands of *Quercus petraea* and *Q. robur.* Cherry is present in the upper floor of the stand with heights ranging between 12-20 m and a trunk diameter of 16-30 cm. In subplot 101 A (N 47°25'30.6, E 28°11'17.7, alt. 330 m) completely dry trees or trees in the process of dying due to stressful environmental conditions were highlighted. In the second floor, solitary specimens of *Malus sylvestris* and *Pyrus pyraster* were observed. It should be noted that in 2025 significant fruiting was reported on the horn. In less shaded areas, communities (sometimes quite abundant) of *Fragaria vesca* were revealed, and in some places specimens of *Asparagus tenuifolius* were highlighted (N 47°25'22.2, E 28°11'39.8, alt. 320 m).

In conclusion, we find that a survey of wild relatives of agricultural crops in the forest ecosystems of the "Telenești" and "Temeleuți" protected areas revealed populations of wild cherry, wild apple, wild Asparagus, cornel, wild pear, hazel, wild strawberry, and others. In various ecological niches, tree specimens (particularly wild cherry) affected by premature dieback were identified—a consequence of the action of environmental stressors. When developing management plans for protected areas, consideration must be given not only to the protection but also to the sustainable use of the most valuable wild relatives of cultivated plants.

Keywords: protected areas, crop wild relatives, forest ecosystems, drought stress.

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