

## Review of progress in national CWR and LR conservation in Europe<sup>i</sup>

The information presented in the tables below was originally based on results of the horizon scanning exercise initiated at the symposium, '[Towards the establishment of genetic reserves for crop wild relatives and landraces in Europe](#)' held in Funchal, Madeira, 13–16 September 2010 and published in Maxted *et al.* (2012)<sup>ii</sup>. Subsequent updates have been provided by members of the Wild Species Conservation in Genetic Reserves Working Group of the ECPGR *In Situ* and On-Farm Conservation Network.

Components completed or initiated, or knowledge gained as a direct result of support, data and training provided by the [PGR Secure project](#) are shaded in green. Components completed or initiated, or knowledge gained independently of the [PGR Secure project](#) are shaded in blue. Components/research actions not yet initiated are shaded in red.

**Table 1.** Progress in national CWR conservation in Europe

COUNTRY	COMPONENTS OF CWR NATIONAL STRATEGIES (– = information pending)												
	National checklist	List of priority taxa	Threat assessment	Gap analysis	National action plan/strategy	Information system	<i>In situ</i> conservation of priority taxa <sup>1</sup>			<i>Ex situ</i> conservation (priority taxa)	Legislation/policy	National utilization	Public awareness
							Protected area (PA)	Genetic reserve	Outside PA				
Albania	Yes	Yes	Yes	No	First draft	No	–	No	Partial	No	No	Yes	Partial
Armenia	Yes	Yes	Red Data Book (2010)	Partial	First draft	Yes <sup>2</sup>	Yes	Yes <sup>3</sup>	No	Partial <sup>4</sup>	Yes <sup>5</sup>	Partial	Yes <sup>6</sup>
Azerbaijan	Yes	Ongoing	New Red Book in prep.	No	In prep. <sup>7</sup>	EURISCO	Yes, within 15 national parks	No	No	Seed and field gene banks	Yes <sup>8</sup>	Partial	Some

<sup>1</sup> Protected area = Priority CWR populations occur in one or more PAs but are not actively managed.

Genetic reserve = Priority CWR populations actively managed in protected areas designated for, or incorporating CWR conservation.

Outside PA = Priority CWR populations passively or actively conserved on farm, on road verges and other unprotected areas.

<sup>2</sup> www.cwr.am; EURISCO; National Inventory; limited C&E data.

<sup>3</sup> State reserve for CWR; management plan is drafted.

<sup>4</sup> c. 50% of species require more seed collections.

<sup>5</sup> Biodiversity Conservation Action Plan; Protected Area Strategy; Sustainable agricultural development strategy.

<sup>6</sup> Booklets, leaflets, round tables, workshops.

<sup>7</sup> In prep. as part of the national strategy on conservation and sustainable utilization of PGR.

<sup>8</sup> National Strategy and Action Plan for Conservation and Sustainable Utilization of Biodiversity adopted in 2006.

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							Protected area (PA)	Genetic reserve	Outside PA				
Belarus	Yes	Yes	No	Partial	In prep.	No	Some	No	No	Partial	Not CWR specific	Partial	Some
Bosnia	Yes	No	No	No	No	No	Some	No	No	Yes	Yes <sup>9</sup>	No	No
Cyprus	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	Yes	No	No	Some
Czech Republic	Yes	Yes	Partial (not CWR specific)	Yes	Yes	No	Partial	No	No	Yes	Yes	No	Some
Denmark	Yes	Draft	Partial	No	Partial	No	–	No	No	Partial	No	Partial	No
Finland	Yes	Yes	Yes	Yes	Yes	Partial	Yes	No	No	Yes	No	Partial	Partial
France	Yes	–	–	–	–	–	–	–	–	–	–	–	–
Germany	Yes	In prep.	Yes	No	Part of the national PGR programme	Yes	Partial	No	No	Yes	Strategy for agrobiodiversity in place	Partial	Partial
Greece	Yes	No	Red Data Book (2009)	Partial	No	Yes, but needs amending	Yes	Some <sup>10</sup>	Yes <sup>11</sup>	Yes	Yes <sup>12</sup>	Partial	Partial
Hungary	Yes	Yes	Red Data Book	Partial	Yes <sup>13</sup>	EURISCO; National Inventory	–	Partial <sup>14</sup>	No	Yes	In prep. <sup>15</sup>	Partial	In prep. <sup>16</sup>

<sup>9</sup> National Assembly of Republica Srpska adopted programme for PGRFA protection.

<sup>10</sup> Some actions commenced by Greek Gene Bank and other institutes.

<sup>11</sup> Yes, actions commenced by Greek Gene Bank and other institutes.

<sup>12</sup> PD 80/90 / National Strategy for Biodiversity conservation in progress / New draft of the PD 80/90 in progress.

<sup>13</sup> Within LIFE+ Pannon Seed Bank project covering CWR and other wild species of the Pannonian flora.

<sup>14</sup> Some actions started in collaboration with National Parks.

<sup>15</sup> National Strategy for Agrobiodiversity under development.

<sup>16</sup> Started as part of the PR actions related to the Pannon Seed Bank project.

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	National checklist	List of priority taxa	Threat assessment	Gap analysis	National action plan/strategy	Information system	In situ conservation of priority taxa <sup>1</sup>			Ex situ conservation (priority taxa)	Legislation/policy	National utilization	Public awareness
							Protected area (PA)	Genetic reserve	Outside PA				
Ireland	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	Yes	Not CWR specific	Partial	Limited
Israel	Yes	Yes	Yes <sup>17</sup>	Partial	Partial	Yes <sup>18</sup>	Yes	Yes	No	Advanced <sup>19</sup>	Not CWR specific	Partial	In progress
Italy	Yes	Yes	No	In progress	In prep.	No	Yes	No	Partial	Partial	Not CWR specific	Partial	Limited
Lithuania	Yes	Partial	No	No	No	Yes	Yes	Partial	No	Yes	Not CWR specific	Partial	Partial
Macedonia	Yes	–	–	–	–	–	–	–	–	–	–	–	–
Montenegro	Yes	No	No	No	No	No	–	No	No	Yes	Not CWR specific	No	Partial
Netherlands	Yes	No	No	No	No	No	–	No	Partial	Yes	Not CWR specific	Partial	Partial
Norway	Yes	Yes	Yes	Yes	Yes (draft)	No	Yes	No	No	Partial	Biodiversity Act implemented 2009	Yes	Partial
Poland	Yes	–	–	–	–	–	–	–	–	–	–	–	–

<sup>17</sup> Red data book completed in 2011.

<sup>18</sup> Integrated in the IGB information system and BioGIS – Israel Biodiversity Website (<http://www.biogis.huji.ac.il/>).

<sup>19</sup> A few populations of each species.

COUNTRY	COMPONENTS OF CWR NATIONAL STRATEGIES (– = information pending)												
	National checklist	List of priority taxa	Threat assessment	Gap analysis	National action plan/strategy	Information system	<i>In situ</i> conservation of priority taxa <sup>1</sup>			<i>Ex situ</i> conservation (priority taxa)	Legislation/policy	National utilization	Public awareness
							Protected area (PA)	Genetic reserve	Outside PA				
Portugal	Yes <sup>20</sup>	Yes <sup>21</sup>	Partial <sup>22</sup>	Partial <sup>23</sup>	No	Partial <sup>24</sup>	Some	No	No	Partial <sup>25</sup>	Not CWR specific	Partial	No
Romania	Yes	No	No	No	No	<i>Ex situ</i> only	Some	No	No	Partial	Not CWR specific	Partial	Limited
Russia	Yes	Yes	Yes	No	No	No	–	No	No	Partial	Not CWR specific	Partial	No
Serbia	Yes	No	No	No	No	No	Some	No	Partial	Partial	Mentioned in National Biodiversity Strategy	Partial	No
Slovakia	Yes	No	Yes	Partial	Yes	Yes	–	No	No	Yes	Not CWR specific	Yes	Yes
Slovenia	Yes	No	Red book, but not complete for CWR	No	No	<i>Ex situ</i> information only	–	No	No	Partial	Not CWR specific	No	Partial
Spain	Yes	Yes	Yes	In progress	In prep.	No	Yes	No	No	Yes	Not CWR specific	No	No
Sweden	Yes	Yes <sup>26</sup>	Yes	Yes	In prep.	Yes	–	No	No	Partial	Not CWR specific	No	In progress
Switzerland	Yes	Yes	Yes	No	No	Yes (www.bdn.ch)	–	No	No	No	Not CWR specific	No	Partial

<sup>20</sup> Checklist exists, but not approved by national authority.

<sup>21</sup> List exists, but not approved by national authority.

<sup>22</sup> Threat assessment exists for a few CWR but not validated by IUCN or national authority.

<sup>23</sup> Only for a few priority species.

<sup>24</sup> Unofficial CWR list available at <http://www.jb.ul.pt/>.

<sup>25</sup> Few CWR are conserved *ex situ*; need for systematic *ex situ* conservation recognized.

<sup>26</sup> List exists, but not approved by national authority.

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	National checklist	List of priority taxa	Threat assessment	Gap analysis	National action plan/strategy	Information system	<i>In situ</i> conservation of priority taxa <sup>1</sup>			<i>Ex situ</i> conservation (priority taxa)	Legislation/policy	National utilization	Public awareness
							Protected area (PA)	Genetic reserve	Outside PA				
Turkey	Yes	Yes	Partial <sup>27</sup>	Partial	Yes	Yes	Yes	Yes	Yes	Yes	Yes <sup>28</sup>	Yes	Yes
Ukraine	Yes	No	Red Book	Partial	No	No	Yes	Yes	No	Yes	Yes	Partial	Partial
UK	Yes	Yes	Yes	Partial/in progress	In prep.	Yes	Yes	First GR under establishment	–	Yes (two populations per species only)	Not CWR specific	Partial	Partial

<sup>27</sup> Red data book (2000) being revised and Important Plant Areas (2003) identified.

<sup>28</sup> Various legislations and policy framework, incl. Plan of Action for *in situ* conservation and National Strategy and Action Plan.

**Table 2.** Progress in national LR conservation in Europe

Country	National LR conservation strategy in place	Constraints reported
Albania	Not attempted	Lack of funding
Armenia	Not attempted	Lack of funding
Azerbaijan	Partially complete	Lack of funding
Belarus	Not attempted	Lack of funding
Bosnia	Partially complete	Lack of funding
Cyprus	Partially complete	
Czech Republic	Partially complete	
Denmark	Not attempted	Lack of funding
Finland	Partially complete	
France	–	
Germany	Partially complete	
Greece	Partially complete	
Hungary	Partially complete	Lack of resources/EU seed legislation and national policies

Country	National LR conservation strategy in place	Constraints reported
Ireland	Partially complete (complete for apples and brassicas)	
Israel	Partially complete	Lack of funding
Italy	<b>Partially complete</b>	
Lithuania	<b>Not attempted</b>	Lack of funding
Macedonia	–	
Montenegro	Partially complete	Lack of funding
Netherlands	Partially complete	Lack of funding
Norway	Partially complete	
Poland	Partially complete	Lack of resources/methodology/people /national policies
Portugal	Partially complete	Lack of funding
Romania	Partially complete	Lack of funding
Russia	<b>Not attempted</b>	Lack of funding
Serbia	Partially complete (complete for fruit trees)	Lack of funding

Country	National LR conservation strategy in place	Constraints reported
Slovakia	Partially complete	Policy
Slovenia	Partially complete	Lack of resources and methodology
Spain	Not attempted	Lack of funding
Sweden	Partially complete	Lack of resources and methodology
Switzerland	Complete	
Turkey	Partially complete	Lack of funding
Ukraine	Partially complete	Lack of legislation
UK	Partially complete	Lack of funding

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<sup>i</sup> If you are a National Focal Point with responsibility for implementing PGRFA conservation in your country or are otherwise involved in national CWR or LR conservation and you would like to make changes to the status in your country, please contact Shelagh Kell: [s.kell@bham.ac.uk](mailto:s.kell@bham.ac.uk)

<sup>ii</sup> Maxted, N. *et al.* (2012) Current and future threats and opportunities facing European crop wild relative and landrace diversity. In: Maxted, N., Dulloo, M.E., Ford-Lloyd, B.V., Frese, L., Iriondo, J.M. and Pinheiro de Carvalho, M.A.A. (eds) *Agrobiodiversity Conservation: Securing the Diversity of Crop Wild Relatives and Landraces*. CAB International, Wallingford. 365 pp.333–353.