Report on the main results of the surveillance under article 11 for annex II, IV and V species (Annex B)

0.1 Member State	**IT**
0.2.1 Species code	**1555**
0.2.2 Species name	**Astragalus verrucosus**
0.2.3 Alternative species scientific name	Astragalus tuberculosus DC
0.2.4 Common name	N/A

1. National Level

1.1 Maps

1.1.1 Distribution Map	Yes
1.1.1a Sensitive species	No
1.1.2 Method used - map	Complete survey/Complete survey or a statistically robust estimate (3)
1.1.3 Year or period	2012
1.1.4 Additional map	No
1.1.5 Range map	Yes

2. Biogeographical Or Marine Level

2.1 Biogeographical Region

Mediterranean (MED)

2.2 Published sources

The present species assessment (fields 0.1-2.9) has been compiled by Stefania Ercole and Valeria Giacanelli (Institute for Environmental Protection and Research - ISPRA). Information, unpublished data and experts' judgments have been provided by: Gianni Bacchetta (University of Cagliari) and Giuseppe Fenu (University of Cagliari).

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2.3 Range

2.3.1 Surface area - Range (km²)	100	
2.3.2 Method - Range surface area	Estimate based on partial data with some extrapolation and/or modelling (2)	
2.3.3 Short-term trend period	2001-2012	
2.3.4 Short-term trend direction	decrease (-)	
2.3.5 Short-term trend magnitude	min	max
2.3.6 Long-term trend period		
2.3.7 Long-term trend direction	N/A	
2.3.8 Long-term trend magnitude	min	max
2.3.9 Favourable reference range	area (km²)	
	operator	more than (>)
	unkown	No
	method	Expert judgment
2.3.10 Reason for change	Use of different method	

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2.4 Population

2.4.1 Population size (individuals or agreed exception)	Unit	number of individuals (i)		
	min	5000	max	10000
2.4.2 Population size (other than individuals)	Unit	N/A		
	min		max	
2.4.3 Additional information	Definition of locality			
	Conversion method			
	Problems			
2.4.4 Year or period	2011			
2.4.5 Method – population size	Estimate based on partial data with some extrapolation and/or modelling (2)			
2.4.6 Short-term trend period	2001-2012			
2.4.7 Short term trend direction	decrease (-)			
2.4.8 Short-term trend magnitude	min		max	confidence interval
2.4.9 Short-term trend method	Estimate based on expert opinion with no or minimal sampling (1)			
2.4.10 Long-term trend period				
2.4.11 Long term trend direction	N/A			
2.4.12 Long-term trend magnitude	min		max	confidence interval
2.4.13 Long-term trend method	N/A			
2.4.14 Favourable reference population	number			
	operator	more than (>)		
	unknown	No		
	method	Expert judgment		
2.4.15 Reason for change	Improved knowledge/more accurate data Use of different method			

2.5 Habitat for the Species

2.5.1 Surface area - Habitat (km²)	
2.5.2 Year or period	
2.5.3 Method used - habitat	Absent data (0)
2.5.4 a) Quality of habitat	Moderate
2.5.4 b) Quality of habitat - method	Species/habitat monitoring (FENU et al, 2010. , BACCHETTA et al., 2011)
2.5.5 Short term trend period	2001-2012
2.5.6 Short term trend direction	decrease (-)
2.5.7 Long-term trend period	
2.5.8 Long term trend direction	N/A
2.5.9 Area of suitable habitat (km²)	
2.5.10 Reason for change	

2.6 Main Pressures

Pressure	ranking	pollution qualifier(s)
Biocenotic evolution, succession (K02)	high importance (H)	N/A
non intensive grazing (A04.02)	medium importance (M)	N/A
Outdoor sports and leisure activities, recreational activities (G01)	low importance (L)	N/A

2.6.1 Method used – pressures	based exclusively or to a larger extent on real data from sites/occurrences or oth

2.7 Main Threats

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Threat	ranking	pollution qualifier(s)
fire and fire suppression (J01)	medium importance (M)	N/A
non intensive grazing (A04.02)	low importance (L)	N/A
Biocenotic evolution, succession (K02)	high importance (H)	N/A
off-road motorized driving (G01.03.02)	low importance (L)	N/A
Urbanised areas, human habitation (E01)	low importance (L)	N/A
Outdoor sports and leisure activities, recreational activities (G01)	medium importance (M)	N/A

2.7.1 Method used – threats	expert opinion (1)

2.8 Complementary Information

2.8.1 Justification of % thresholds for trends	
2.8.2 Other relevant Information	1) Italian Red List (2013): CR. Assessment criteria: B1ab(i, ii, iii, v)+2ab(i, ii, iii, v). Sources: FENU G., MATTANA E., BACCHETTA G., 2010 - Astragalus verrucosus Moris. Inf. Bot. Ital. 42(2): 549-551. FENU G., MATTANA E., BACCHETTA G., 2011. Astragalus verrucosus. In: IUCN 2012. IUCN Red List of Threatened Species. Version 2012.2. <www.iucnredlist.org>. Downloaded on 11 April 2013. ROSSI G., MONTAGNANI C., GARGANO D., PERUZZI L., ABELI T., RAVERA S., COGONI A., FENU G., MAGRINI S., GENNAI M., FOGGI B., WAGENSOMMER R.P., VENTURELLA G., BLASI C., RAIMONDO F.M., ORSENIGO S. (Eds.), 2013. Lista Rossa della Flora Italiana. 1. Policy Species e altre specie minacciate. Comitato Italiano IUCN; Ministero dell'Ambiente e della Tutela del Territorio e del Mare. 2) Ex-situ conservation: Sardinian Seed Bank (BG-SAR) of Biodiversity Conservation Centre of Cagliari (CCB), Sardinia and duplicate in the seed banks of Soller (Spagna), Catania Millenium Seed Bank, Royal Botanic Gardens of Kew (UK). Source: Bacchetta et al. (2008, 2011), Fenu et al. (2010, 2011),Mattana et al. (2012).
2.8.3 Trans-boundary assessment	

2.9 Conclusions (assessment of conservation status at end of reporting period)

2.9.1 Range	assessment Inadequate (U1) qualifiers declining (-)
2.9.2. Population	assessment Inadequate (U1) qualifiers declining (-)
2.9.3. Habitat	assessment Inadequate (U1) qualifiers declining (-)
2.9.4. Future prospects	assessment Inadequate (U1) qualifiers declining (-)
2.9.5 Overall assessment of Conservation Status	Inadequate (U1)
2.9.5 Overall trend in Conservation Status	declining (-)

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3. Natura 2000 coverage and conservation measures - Annex II species

3.1 Population

3.1.1 Population Size	Unit	N/A	
	min		max
3.1.2 Method used	Absent data (0)		
3.1.3 Trend of population size within	N/A		

3.2 Conversation Measures

3.2.1 Measure	3.2.2 Type	3.2.3 Ranking	3.2.4 Location	3.2.5 Broad Evaluation
Specific single species or species group management measures (7.4)	Recurrent	high importance (H)	Both	Maintain Long term

Notes

Species name: Astragalus verrucosus (1555)

Field label	Note	User
0.2.3 Alternative Speciesname	"A. verrucosus, descritto da MORIS nel 1837, è stato considerato in maniera dubitativa per lungo tempo; MARTELLI (1892) lo mise in sinonimia con A. tuberculosus DC., specie a distribuzione orientale presente in Siria, Cappadocia e Mesopotamia. (…) Solo CORRIAS (1978) ne ha confermato l'autonomia e la validità tassonomica con rango specifico." (FENU G., MATTANA E., BACCHETTA G., 2010 - Astragalus verrucosus Moris. Inf. Bot. Ital. 42(2): 549-551)	ISPRA_FLORA
1.1.1 Distribution Map	Data sources: SOCIETÀ BOTANICA ITALIANA, 2012. Valutazione nazionale della categoria di rischio di estinzione per specie vegetali di pregio e di interesse conservazionistico. Ministero dell'Ambiente e della Tutela del Territorio e del Mare, Società Botanica Italiana (dati inediti). REGIONE AUTONOMA SARDEGNA, Ass. Difesa Ambiente, SAVI - 2008/2009 - Realizzazione della rete di monitoraggio dello stato di conservazione degli habitat e delle specie di interesse comunitario della Sardegna. BACCHETTA G., FENU G., MATTANA E., PONTECORVO C., 2011. Ecological remarks on Astragalus maritimus and A. verrucosus, two threatened exclusive endemic species of Sardinia. Acta Bot. Gallica 158(1):79-91. FENU G., MATTANA E., BACCHETTA G., 2010 - Astragalus verrucosus Moris. Inf. Bot. Ital. 42(2): 549-551.	ISPRA_FLORA

Species name: Astragalus verrucosus (1555) Region code: MED

Field label	Note	User
2.9.6 Conclusion - overall assessment trend	"Declino del numero di individui maturi. Sulla base delle modificazioni e della fragilità dell'habitat, dell'impossibilità di colonizzare altre nicchie ecologicamente idonee, delle pressioni turistiche lungo tutta la costa, si può ipotizzare una graduale riduzione del numero d'individui maturi della popolazione." Fonte: FENU G., MATTANA E., BACCHETTA G., 2010 - Astragalus verrucosus Moris. Inf. Bot. Ital. 42(2): 549-551.	ISPRA_FLORA
2.4.1a Population size (individuals or agreed exception) - Unit	Class 6. Data source: Regione Sardegna; BACCHETTA G., FENU G., MATTANA E., PONTECORVO C., 2011 – Ecological remarks on Astragalus maritimus and A. verrucosus, two threatened exclusive endemic species to Sardinia. Acta Bot. Gallica, 158(1): 79-91.; FENU G., MATTANA E., BACCHETTA G., 2010 - Astragalus verrucosus Moris. Inf. Bot. Ital. 42(2): 549-551.	ISPRA_FLORA