

# 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	1334
0.2.2 Species name	<b>Lepus timidus</b>
0.2.3 Alternative species scientific name	N/A
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	Estimate based on partial data with some extrapolation and/or modelling (2)
1.1.3 Year or period	1985-2012
1.1.4 Additional map	No
1.1.5 Range map	Yes

## 2. Biogeographical Or Marine Level

### 2.1 Biogeographical Region

### 2.2 Published sources

#### Alpine (ALP)

The present species assessment (fields 0.1-2.9) has been compiled by Daniele Paoloni, Cristiano Spilinga (Associazione Teriologica Italiana - ATIt) and Anna Alonzi, Piero Genovesi, Francesca Ronchi (Institute for Environmental Protection and Research - ISPRA). Information, unpublished data and experts' judgments have been provided by Gaetano Aloise, Giovanni Amori, Sandro Bertolino, Francesco Bisi, Silvia Capasso, Dario Capizzi, Filomena Carpino, Emiliano Mori, Maurizio Sarà (ATIt).

Amori G., Contoli L., Nappi A., 2008. Fauna d'Italia, Mammalia II - Erinaceomorpha, Soricomorpha, Lagomorpha, Rodentia . P. 395-405, MILANO:Calderini - Edizioni Calderini de Il Sole 24 ORE S.p.A..

Bisi F., 2010. Conservation of Biodiversity in Alps: mountain hare (*Lepus timidus*) as model system, Doctoral Thesis, Università degli Studi dell'Insubria.

Boitani L., Corsi F., Falcucci A., Maiorano L., Marzetti I., Masi M., Montemaggiori A., Ottaviani D., Reggiani G., Rondinini C., 2002. Rete Ecologica Nazionale. Un approccio alla conservazione dei vertebrati italiani. Università di Roma "La Sapienza", Dipartimento di Biologia Animale e dell'Uomo; Ministero dell'Ambiente, Direzione per la Conservazione della Natura; Istituto di Ecologia Applicata. <http://www.gisbau.uniroma1.it/REN>

Trocchi V., Riga F., 2005. I Lagomorfi in Italia - Linee guida per la conservazione e gestione, Min. Politiche Agricole e Forestali.

### 2.3 Range

2.3.1 Surface area - Range (km <sup>2</sup> )	46100
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	stable (0)
2.3.5 Short-term trend magnitude	min max
2.3.6 Long-term trend period	

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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 (km <sup>2</sup> )	
	operator	approximately equal to (≈)
	unknown	No
	method	Expert judgement
2.3.10 Reason for change	Improved knowledge/more accurate dataUse of different method	

## 2.4 Population

2.4.1 Population size (individuals or agreed exception)	Unit	N/A		
	min		max	
2.4.2 Population size (other than individuals)	Unit	number of map 10x10 km grid cells (grids10x10)		
	min	435	max	435
2.4.3 Additional information	Definition of locality Conversion method Problems Impossible to convert grids into individuals			
2.4.4 Year or period	1985-2012			
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	stable (0)			
2.4.8 Short-term trend magnitude	min		max	confidence interval
2.4.9 Short-term trend method	Estimate based on partial data with some extrapolation and/or modelling (2)			
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 judgement		
2.4.15 Reason for change	Improved knowledge/more accurate data			

## 2.5 Habitat for the Species

2.5.1 Surface area - Habitat (km <sup>2</sup> )	
2.5.2 Year or period	
2.5.3 Method used - habitat	Absent data (0)
2.5.4 a) Quality of habitat	Good
2.5.4 b) Quality of habitat - method	Expert based
2.5.5 Short term trend period	2001-2012
2.5.6 Short term trend direction	stable (0)
2.5.7 Long-term trend period	
2.5.8 Long term trend direction	N/A
2.5.9 Area of suitable habitat (km <sup>2</sup> )	26629
2.5.10 Reason for change	Use of different method

## 2.6 Main Pressures

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Pressure	ranking	pollution qualifier(s)
temperature changes (e.g. rise of temperature & extremes) (M01.01)	high importance (H)	N/A
other forms of interspecific faunal competition (K03.07)	medium importance (M)	N/A
Hunting (F03.01)	low importance (L)	N/A
mountaineering & rock climbing (G01.04.01)	low importance (L)	N/A
skiing complex (G02.02)	low importance (L)	N/A

2.6.1 Method used – pressures based only on expert judgements (1)

## 2.7 Main Threats

Threat	ranking	pollution qualifier(s)
temperature changes (e.g. rise of temperature & extremes) (M01.01)	high importance (H)	N/A
other forms of interspecific faunal competition (K03.07)	high importance (H)	N/A
Hunting (F03.01)	low importance (L)	N/A
mountaineering & rock climbing (G01.04.01)	low importance (L)	N/A
skiing complex (G02.02)	low importance (L)	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

The species can be considered as marginal for Continental and Mediterranean biogeographical regions and therefore the full reporting was compiled only for the Alpine one.

2.8.3 Trans-boundary assessment

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

2.9.1 Range	assessment Favourable (FV) qualifiers N/A
2.9.2. Population	assessment Inadequate (U1) qualifiers stable (=)
2.9.3. Habitat	assessment Favourable (FV) qualifiers N/A
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	stable (=)

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

### 3.1 Population

3.1.1 Population Size	Unit N/A	max
	min	

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3.1.2 Method used	N/A
3.1.3 Trend of population size within	N/A

## 3.2 Conversation Measures

**Species name: *Lepus timidus* (1334) Region code: ALP**

Field label	Note	User
2.6 Pressures	The pressure K03.07 represents the genetic introgression by <i>Lepus europaeus</i>	ISPRA_ AUNA
2.3.1 Surface area - Range (km <sup>2</sup> )	The area of the range (2.3.1) has been calculated also summing up the grid cells of species' presence in the adjacent biogeographical region of marginal presence. Only cells entirely overlapped to the marginal area have been summed up, in order to avoid an overestimation of the overall species' range.	ISPRA_ AUNA
2.5.9 Area of suitable habitat (km <sup>2</sup> )	<p>The area of suitable habitat (2.5.9) has been calculated by intersecting habitat suitability models with each biogeographical region in which the species is present. The habitat suitability models are those included in the Italian Ecological Network (Rete Ecologica Nazionale – REN; Boitani et al. 2002), and were developed at the national scale for all vertebrate species, based on species-environments relationships defined with inputs from leading species' experts. The models were created integrating into a Geographic Information System geographic and environmental data, such as Corine Land Cover, Digital Terrain Model, water and road networks.</p> <p>Source: Boitani L., Corsi F., Falcucci A., Maiorano L., Marzetti I., Masi M., Montemaggiori A., Ottaviani D., Reggiani G., Rondinini C., 2002. Rete Ecologica Nazionale. Un approccio alla conservazione dei vertebrati italiani. Università di Roma "La Sapienza", Dipartimento di Biologia Animale e dell'Uomo; Ministero dell'Ambiente, Direzione per la Conservazione della Natura; Istituto di Ecologia Applicata. <a href="http://www.gisbau.uniroma1.it/REN">Http://www.gisbau.uniroma1.it/REN</a></p>	ISPRA_ AUNA
2.7 Threats	The threats K03.07 represents the increasing risk of genetic introgression by <i>Lepus europaeus</i>	ISPRA_ AUNA



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