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	**1355**
0.2.2 Species name	**Lutra lutra**
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	2001-2012
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 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 Information, unpublished data and experts' judgments have been provided by Marco Apollonio, Luigi Boitani, Paolo Ciucci, Luca Lapini, Anna Loy, Andrea Sforzi (ATIt).

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

Boitani L., Lovari S., Vigna Taglianti A., 2003. Carnivora – Artiodactyla. Fauna d'Italia, vol. XXXVIII, Mammalia III. Ed. Calderini de Il Sole 24 ore Edagricole, Bologna.

Fusillo R., Marcelli M., Boitani L.. 2007. Survey of an otter Lutra lutra population in Southern Italy: site occupancy and influence of sampling season on species detection. Acta Theriologica 52(3): 251-260.

Loy A., Carranza M.L., Cianfrani C., D'Alessandro E., Bonesi L., Di Marzio P., Minotti M., Reggiani G., 2009. Otter Lutra lutra population expansion: assessing habitat suitability and connectivity in south-central Italy.FOLIA ZOOLOGICA 58(3): 309-326.

Mucci N., Arrendal J., Ansorge H., Bailey M., Bodner M., Delibes M., Ferrando A., Fournier P., Fournier C., Godoy J., Hajkova P., Hauer S., Heggberget T., Heidecke D., Kirjavainen H., Krueger H., Kvaloy K., Lafontaine L., Lanszki J., Lemarchand C., Liukko U., Loeschcke V., Ludwig G., Madsen A., Mercier L., Ozolins J., Paunovic M., Pertoldi C., Piriz A., Prigioni C., Santos-Reis M., Luis T., Stjernberg T., Schmid

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Panzacchi M., Genovesi P., Loy A., 2010. Piano d'Azione Nazionale per la Conservazione della Lontra (Lutra lutra). Min. Ambiente - ISPRA.

Prigioni C., Remonti L., Balestrieri A., Sgrosso A, Priore G., Mucci N., Randi E., 2006. Estimation of European otter (Lutra lutra) population size by fecal DNA typing in southern Italy Journal of Mammalogy 87: 5. 855-858.

Prigioni C., Balestrieri A., Remonti L., 2007. Decline and recovery in otter Lutra lutra populations in Italy Mammal Review 37: 1. 71-79

2.3 Range

2.3.1 Surface area - Range (km²)	33000	
2.3.2 Method - Range surface area	Complete survey/Complete survey or a statistically robust estimate (3)	
2.3.3 Short-term trend period	2001-2012	
2.3.4 Short-term trend direction	increase (+)	
2.3.5 Short-term trend magnitude	min	max
2.3.6 Long-term trend period	1989-2012	
2.3.7 Long-term trend direction	increase (+)	
2.3.8 Long-term trend magnitude	min	max
2.3.9 Favourable reference range	area (km²)	
	operator	approximately equal to (≈)
	unkown	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	number of individuals (i)		
	min	150	max	300
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	2006-2012			
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 expert opinion with no or minimal sampling (1)			
2.4.10 Long-term trend period				
2.4.11 Long term trend direction	N/A			

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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	approximately equal to (≈)	
	unknown	No	
	method	Expert judgement	
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	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	increase (+)
2.5.7 Long-term trend period	
2.5.8 Long term trend direction	N/A
2.5.9 Area of suitable habitat (km²)	49849
2.5.10 Reason for change	Improved knowledge/more accurate data Use of different method

2.6 Main Pressures

Pressure	ranking	pollution qualifier(s)
roads, motorways (D01.02)	high importance (H)	N/A
trapping, poisoning, poaching (F03.02.03)	high importance (H)	N/A
Outdoor sports and leisure activities, recreational activities (G01)	medium importance (M)	N/A
Pollution to surface waters (limnic & terrestrial, marine & brackish) (H01)	medium importance (M)	N/A
human induced changes in hydraulic conditions (J02)	high importance (H)	N/A
reduction in dispersal (J03.02.02)	high importance (H)	N/A
continuous urbanisation (E01.01)	medium importance (M)	N/A
reduced fecundity/ genetic depression in animals (inbreeding) (K05.01)	low importance (L)	N/A
Water abstractions from surface waters (J02.06)	medium importance (M)	N/A

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

2.7 Main Threats

Threat	ranking	pollution qualifier(s)
roads, motorways (D01.02)	high importance (H)	N/A
trapping, poisoning, poaching (F03.02.03)	high importance (H)	N/A
Outdoor sports and leisure activities, recreational activities (G01)	medium importance (M)	N/A
Pollution to surface waters (limnic & terrestrial, marine & brackish) (H01)	medium importance (M)	N/A
human induced changes in hydraulic conditions (J02)	high importance (H)	N/A

reduction in dispersal (J03.02.02)	high importance (H)	N/A
continuous urbanisation (E01.01)	medium importance (M)	N/A
reduced fecundity/ genetic depression in animals (inbreeding) (K05.01)	medium importance (M)	N/A
Water abstractions from surface waters (J02.06)	medium importance (M)	N/A
inundation (natural processes) (L08)	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: Pressure and threat J03.02.02 represents the difficulty to spread northward due to the Barrea dam (Abruzzo region).

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: Favourable (FV); qualifiers: N/A

2.9.3. Habitat — assessment: Favourable (FV); qualifiers: N/A

2.9.4. Future prospects — assessment: Favourable (FV); qualifiers: N/A

2.9.5 Overall assessment of Conservation Status: Favourable (FV)

2.9.5 Overall trend in Conservation Status: N/A

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
Establish protected areas/sites (6.1)	Legal	medium importance (M)	Both	Long term

2. Biogeographical Or Marine Level

2.1 Biogeographical Region: **Alpine (ALP)**

2.2 Published sources: 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 Marco Apollonio, Luigi Boitani, Paolo Ciucci, Luca Lapini, Anna Loy, Andrea Sforzi (ATIt).

Boitani L., Lovari S., Vigna Taglianti A., 2003. Carnivora – Artiodactyla. Fauna d'Italia, vol. XXXVIII, Mammalia III. Ed. Calderini de Il Sole 24 ore Edagricole, Bologna.

Mucci, N., Arrendal, J., Ansorge, H., Bailey, M., Bodner, M., Delibes, M., Ferrando, A., Fournier, P., Fournier, C., Godoy, J., Hajkova, P., Hauer, S., Heggberget, T., Heidecke, D., Kirjavainen, H., Krueger, H., Kvaloy, K., Lafontaine, L., Lanszki, J., Lemarchand, C., Liukko, U., Loeschcke, V., Ludwig, G., Madsen, A., Mercier, L., Ozolins, J., Paunovic, M., Pertoldi, C., Piriz, A., Prigioni, C., Santos-Reis, M., Luis, T., Stjernberg, T., Schmid, H., Suchentrunk, F., Teubner, J., Tornberg, R., Zinke, O. and Randi, E. (2010) Genetic diversity and landscape genetic structure of otter (Lutra lutra) populations in Europe. Conservation Genetics, 11, 583-599.

Panzacchi M., Genovesi P., Loy A., 2010 - Piano d'Azione Nazionale per la Conservazione della Lontra (Lutra lutra). Min. Ambiente - ISPRA.

Randi E., 2008. The genetics of otter reintroductions with specific reference to Italy. Contributo orale presentato all'Italian Otter Reintroduction Workshop. Parco naturale valle del Ticino-Regione Piemonte.

2.3 Range

2.3.1 Surface area - Range (km²)	1500	
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	increase (+)	
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	Improved knowledge/more accurate dataUse of different method	

2.4 Population

2.4.1 Population size (individuals or agreed exception)	Unit	number of individuals (i)		
	min	2	max	10
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	2001-2012			
2.4.5 Method – population size	Estimate based on expert opinion with no or minimal sampling (1)			
2.4.6 Short-term trend period	2001-2012			

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2.4.7 Short term trend direction	increase (+)		
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 judgement	
2.4.15 Reason for change	Improved knowledge/more accurate data		

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	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	increase (+)
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	Improved knowledge/more accurate data Use of different method

2.6 Main Pressures

Pressure	ranking	pollution qualifier(s)
roads, motorways (D01.02)	high importance (H)	N/A
trapping, poisoning, poaching (F03.02.03)	high importance (H)	N/A
Outdoor sports and leisure activities, recreational activities (G01)	medium importance (M)	N/A
Pollution to surface waters (limnic & terrestrial, marine & brackish) (H01)	medium importance (M)	N/A
human induced changes in hydraulic conditions (J02)	high importance (H)	N/A
reduction in dispersal (J03.02.02)	high importance (H)	N/A
continuous urbanisation (E01.01)	medium importance (M)	N/A
reduced fecundity/ genetic depression in animals (inbreeding) (K05.01)	low importance (L)	N/A
Water abstractions from surface waters (J02.06)	medium importance (M)	N/A

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

2.7 Main Threats

Threat	ranking	pollution qualifier(s)
roads, motorways (D01.02)	high importance (H)	N/A
trapping, poisoning, poaching (F03.02.03)	high importance (H)	N/A

Outdoor sports and leisure activities, recreational activities (G01)	medium importance (M)	N/A
Pollution to surface waters (limnic & terrestrial, marine & brackish) (H01)	medium importance (M)	N/A
human induced changes in hydraulic conditions (J02)	high importance (H)	N/A
reduction in dispersal (J03.02.02)	high importance (H)	N/A
continuous urbanisation (E01.01)	medium importance (M)	N/A
reduced fecundity/ genetic depression in animals (inbreeding) (K05.01)	low importance (L)	N/A
Water abstractions from surface waters (J02.06)	medium importance (M)	N/A
inundation (natural processes) (L08)	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: The species can be considered as marginal for Continental biogeographical region and therefore the full reporting was compiled only for the Alpine and Mediterranean ones. In particular the population of Continental region can be assessed as marginal for the Alpine region.

Some individuals in the valley of Ticino river come from illegal releases and therefore they do not appear neither in the Reporting nor in the distribution and range maps.

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: N/A

2.9.2. Population — assessment: Inadequate (U1); qualifiers: N/A

2.9.3. Habitat — assessment: Favourable (FV); qualifiers: N/A

2.9.4. Future prospects — assessment: Favourable (FV); qualifiers: N/A

2.9.5 Overall assessment of Conservation Status: Inadequate (U1)

2.9.5 Overall trend in Conservation Status: improving (+)

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

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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
Other wetland-related measures (4.0)	Contractual	medium importance (M)	Inside	Unknown
Legal protection of habitats and species (6.3)	Legal	high importance (H)	Both	Not evaluated
Regulation/ Management of hunting and taking (7.1)	Administrative	medium importance (M)	Inside	Unknown
Specific management of traffic and energy transport systems (8.2)	Contractual	medium importance (M)	Inside	Unknown

Notes

Species name: Lutra lutra (1355) Region code: ALP

Field label	Note	User
2.3.1 Surface area - Range (km²)	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

Species name: Lutra lutra (1355) Region code: MED

Field label	Note	User
2.5.9 Area of suitable habitat (km2)	The area of suitable habitat (2.5.9) has been calculated by intersecting habitat suitability models for drainage basin (Ottaviani et al., 2009) with Mediterranean biogeographical region. Suitability values were split into 4 classes: 0-50, 51-75, 76-100, 101-150. A value of 0 indicates unsuitability, while the value of 150 indicates optimum suitability. For the reported value were considered only the two classes with higher rank (76-100, 101-150). Source: Ottaviani D., Panzacchi M., Jona lasinio G., Genovesi P., Boitani L., 2009. Modelling semi-acquatic vertebrates' distribution at the drainage basin scale: The case of the otter Lutra lutra in Italy. Ecological Modelling, 220: 111-121.	ISPRA_AUNA
2.7 Threats	Pressure and threat J03.02.02 represents the difficulty to spread northward due to the Barrea dam (Abruzzo region).	ISPRA_AUNA
2.6 Pressures	Pressure and threat J03.02.02 represents the difficulty to spread northward due to the Barrea dam (Abruzzo region).	ISPRA_AUNA

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