

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 | 1304 |
| 0.2.2 Species name | Rhinolophus ferrumequinum |
| 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

Mediterranean (MED)

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 Information, unpublished data and experts' judgments have been provided by Paolo Agnelli, Mara Calvinì, Luca Cistrone, Michele Ferretto, Danilo Russo, Dino Scaravelli, Martina Spada, Roberto Toffoli, Simone Vergari (Italian Group for bat Research).

Distribution data for the following grid cells have been inserted by the Ministry of Environment: 10kmE424N201; 10kmE424N196

Distribution data for the following Nature 2000 sites have been inserted by the Ministry of Environment (source: Italian Nature 2000 database): IT8030005; IT8030012; IT8030022; IT8030026; IT8030034 ; IT5210078; IT5210060

Archivio Osservatorio Regionale per Biodiversità. Regione Umbria.

Bux M., Rizzi V., Cocumazzi B. & Pavone A. 2000. An analysis of Apulian micromammals populations by owls' pellets. *Hystrix*, 11 (2): 55-59.

Bux M., Russo D. e Scillitani G. 2003. La chiroterofauna della Puglia. *Hystrix*, It. J. Mamm. (n. s.) supp.: 150.

Calvinì M., 2006. Monitoraggio dei chiroteri nella piana del Magra e Vallecchia (SP) (rapporto interno).

Calvinì M., 2006. I Chiroteri della ZPS Beigua-Turchino e del Parco del Beigua; 70 pag. Ente Parco del Beigua, Regione Liguria.

Calvinì M., 2007. Studio preliminare sulla chiroterofauna delle tre foreste demaniali del Parco dell'Aveto (rapporto interno).

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

Calvini M., 2007. I Chiroterri delle Alpi Liguri; 24 pag. Provincia di Imperia, Regione Liguria.

Calvini M., 2009. Indagine chiroterologica nei seguenti SIC della provincia di Savona: IT1323201, IT1324011, IT1323112 e IT1323203 (rapporto interno).

Calvini M., 2010. Monitoraggio delle colonie di chiroterri riproduttive e svernanti di particolare interesse conservazionistico note in Liguria (rapporto interno).

Capizzi et al. (2012) Progetto atlante dei Mammiferi del Lazio - Regione Lazio – ARP.

Database del Repertorio Naturalistico Toscano.

Debernardi P., Patriarca E. e Toffoli R., 2005. Il monitoraggio dello stato di conservazione dei Chiroterri in allegato II Direttiva 92/43/CEE in Piemonte e Valle d'Aosta. In: Prigioni et al. (eds.), 2005. V Congr. It. Teriologia, Hystrix, It. J. Mamm., (N.S.) suppl. (2005): 123.

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G.I.R.C. Gruppo Italiano Ricerca Chiroterri, 2004. The Italian Bat Roost Project: a preliminary inventory of sites and conservation perspectives. Hystrix It. J. Mamm. (n.s.) 15 (2): 55-68.

Loy A., De Lisio L., Capula M., Ciucci P., Russo D., Sciarretta A., 2012. Rapporto finale - Convenzione stipulata tra la Regione Molise e la Unione Zoologica Italiana per la realizzazione dei piani di gestione dei Siti Natura 2000.n. 1393/2008. Unione Zoologica Italiana, Regione Molise.

Mucedda M., Bertelli M. L., Pidinchedda E., 2005. Primi dati sui pipistrelli dell'area mineraria Montevicchio-Ingurtosu (Guspini-Arbus, Sardegna Sud-Occidentale). Rendiconti Seminario Facoltà Scienze Università Cagliari, 75, 1-2: 89-97.

Mucedda M., Murittu G., Oppes A., Pidinchedda E., 1995. Osservazioni sui Chiroterri troglodili della Sardegna. Boll. Soc. Sarda Sci. Nat., 30: 97-129.

Mucedda M., Pidinchedda E., Bertelli M. L., 2009. Status del Rinolofo di Mehely (*Rhinolophus mehelyi*) (Chiroptera, Rhinolophidae) in Italia. Atti del 2° Convegno Italiano sui Chiroterri, Serra San Quirico (AN), 21-23 novembre 2008: 89-98.

Regione Autonoma della Sardegna - Assessorato Difesa Ambiente , 2012 - "Servizio di monitoraggio dello stato di conservazione degli habitat e delle specie di importanza comunitaria presenti nei siti della Rete Natura 2000 in Sardegna – Linea 4. Redazione del Rapporto sullo stato di conservazione di habitat e specie.

Regione Autonoma della Sardegna - Assessorato Difesa Ambiente - 2008-2009. "Realizzazione del sistema di monitoraggio dello stato di conservazione degli

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

habitat e delle specie di interesse comunitario della Regione Autonoma della Sardegna".

Regione Liguria, 2008, Carta della Biodiversità, www.ambienteinliguria.it

Ruffo S., Stoch F., 2005. Checklist e distribuzione della fauna italiana. Memorie del Museo Civico di storia naturale di Verona, 2.serie, Sezione scienze della Vita 16.

Scaravelli D. e Bertozzi M., 2001. Nota sui Chiroterteri e micromammiferi delle gravine materane. Abstract III Conv. Ital. Di Teriologia.

Spilinga C., Carletti S., 2012. Anfibi, rettili e Chiroterteri. Animali sconosciuti della Montagna Spoleatina. Comune di Spoleto: 80 pp.

Spilinga C., Russo D., Carletti S., Jiménez Grijalva M.P., Sergiacomi U., Ragni B., (in stampa). Chiroterteri dell'Umbria. Distribuzione geografica ed ecologica. Regione Umbria. Università degli Studi di Perugia.

Toffoli R., 2011. I Chiroterteri del Parco Naturale delle Capanne di Marcarolo. Regione Piemonte-Parco Naturale delle Capanne di Marcarolo (rapporto interno).

2.3 Range

| | |
|---|--|
| 2.3.1 Surface area - Range (km ²) | 152900 |
| 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 | |
| 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 ²) 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 N/A min max |
| 2.4.2 Population size (other than individuals) | Unit number of map 10x10 km grid cells (grids10x10) min 492 max 492 |
| 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 expert opinion with no or minimal sampling (1) |
| 2.4.6 Short-term trend period | 2001-2012 |
| 2.4.7 Short term trend direction | decrease (-) |

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

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|--|--|------------------|---------------------|
| 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 Use of different method | | |

2.5 Habitat for the Species

| | |
|---|---|
| 2.5.1 Surface area - Habitat (km ²) | |
| 2.5.2 Year or period | |
| 2.5.3 Method used - habitat | Absent data (0) |
| 2.5.4 a) Quality of habitat | Bad |
| 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 | decrease (-) |
| 2.5.7 Long-term trend period | |
| 2.5.8 Long term trend direction | N/A |
| 2.5.9 Area of suitable habitat (km ²) | |
| 2.5.10 Reason for change | Improved knowledge/more accurate data Use of different method |

2.6 Main Pressures

| Pressure | ranking | pollution qualifier(s) |
|---|-----------------------|------------------------|
| abandonment of pastoral systems, lack of grazing (A04.03) | medium importance (M) | N/A |
| use of biocides, hormones and chemicals (A07) | high importance (H) | N/A |
| Light pollution (H06.02) | medium importance (M) | N/A |
| modification of cultivation practices (A02) | high importance (H) | N/A |
| mowing / cutting of grassland (A03) | medium importance (M) | N/A |
| demolishment of buildings & human structures (E06.01) | high importance (H) | N/A |
| reconstruction, renovation of buildings (E06.02) | high importance (H) | N/A |
| closures of caves or galleries (G05.08) | high importance (H) | N/A |
| speleology (G01.04.02) | medium importance (M) | N/A |
| recreational cave visits (G01.04.03) | medium importance (M) | N/A |
| wind energy production (C03.03) | 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) |
|---|-----------------------|------------------------|
| abandonment of pastoral systems, lack of grazing (A04.03) | medium importance (M) | N/A |
| use of biocides, hormones and chemicals (A07) | high importance (H) | N/A |
| Light pollution (H06.02) | medium importance (M) | N/A |

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

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|---|-----------------------|-----|
| modification of cultivation practices (A02) | high importance (H) | N/A |
| mowing / cutting of grassland (A03) | medium importance (M) | N/A |
| demolishment of buildings & human structures (E06.01) | high importance (H) | N/A |
| reconstruction, renovation of buildings (E06.02) | high importance (H) | N/A |
| closures of caves or galleries (G05.08) | high importance (H) | N/A |
| speleology (G01.04.02) | medium importance (M) | N/A |
| recreational cave visits (G01.04.03) | medium importance (M) | N/A |
| wind energy production (C03.03) | low importance (L) | N/A |
| Roads, paths and railroads (D01) | 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

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 Bad (U2)
qualifiers N/A

2.9.3. Habitat assessment Bad (U2)
qualifiers N/A

2.9.4. Future prospects assessment Bad (U2)
qualifiers N/A

2.9.5 Overall assessment of Conservation Status Bad (U2)

2.9.5 Overall trend in Conservation Status declining (-)

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 |
|-------------------------------|--|-----------------------|----------------|----------------------------------|
| Adapt forest management (3.2) | Administrative | medium importance (M) | Both | Maintain Long term |
| Other spatial measures (6.0) | Administrative Recurrent One-off | medium importance (M) | Inside | Maintain Enhance Long term |

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

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|--|------------------------------|---------------------|--------|------------------------------------|
| Establish protected areas/sites (6.1) | Legal Administrative | high importance (H) | Inside | Maintain Enhance Long term Unknown |
| Legal protection of habitats and species (6.3) | Legal | high importance (H) | Both | Maintain Unknown Not evaluated |
| Specific single species or species group management measures (7.4) | Legal Administrative One-off | high importance (H) | Both | Maintain Enhance |

2. Biogeographical Or Marine Level

2.1 Biogeographical Region

2.2 Published sources

Continental (CON)

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 Paolo Agnelli, Mara Calvini, Luca Cistrone, Michele Ferretto, Danilo Russo, Dino Scaravelli, Martina Spada, Roberto Toffoli, Simone Vergari (Italian Group for bat Research).

Archivio Osservatorio Regionale per Biodiversità. Regione Umbria.

Archivio Stazione Teriologica Piemontese.

Banca Dati Regionale Emilia Romagna (aggiornamento al 2010).

Calvini M., 2006. Monitoraggio dei chiroterri nella piana del Magra e Vallecchia (SP) (rapporto interno).

Calvini M., 2007. Studio preliminare sulla chiroterrofauna delle tre foreste demaniali del Parco dell'Aveto (rapporto interno).

Calvini M., 2009. I Chiroterri del SIC IT1110022 Stagno di Oulx e IT1110020 Lago di Viverone. IPLA (rapporto interno).

Calvini M., 2010. Monitoraggio delle colonie di chiroterri riproduttive e svernanti di particolare interesse conservazionistico note in Liguria (rapporto interno).

Dall'Asta A., 1995-1996. Atlante preliminare dei Chiroterri (Chiroptera, Mammalia) della Regione Friuli-Venezia Giulia - Prima Sintesi Cartografica. Tesi di Laurea in Scienze Naturali, Fac. di Scienze MM. FF. NN. dell'Università degli Studi di Trieste, Relatori G. A. Amirante & S. Dolce: 1-103.

Database del Repertorio Naturalistico Toscano.

Debernardi P., Patriarca E. e Toffoli R., 2005. Il monitoraggio dello stato di conservazione dei Chiroterri in allegato II Direttiva 92/43/CEE in Piemonte e Valle d'Aosta. In: Prigioni et al. (eds.), 2005. V Congr. It. Teriologia, Hystrix, It. J. Mamm., (N.S.) suppl. (2005): 123.

Debernardi P., Patriarca E., Toffoli R., 2010. Monitoraggio delle colonie di

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

chiroterri riproduttive e svernanti di particolare interesse conservazionistico note in Piemonte e dati preliminari sull'attività di swarming. Stato delle conoscenze al 30 aprile 2010. CRC, Regione Piemonte - Direzione ambiente - Settore pianificazione e gestione aree naturali protette (relazione interna). Pp. 83.

G.I.R.C. Gruppo Italiano Ricerca Chiroterri, 2004. The Italian Bat Roost Project: a preliminary inventory of sites and conservation perspectives. *Hystrix It. J. Mamm.* (n.s.) 15 (2): 55-68.

Insubria DataBat, 2012. Data base chiroterri dell'Università degli Studi dell'Insubria aggiornato al 2012.

Kryštufek B., Rešek Donev N., 2005. The Atlas of Slovenian Bats (Chiroptera). *Scopolia*, 55 (2005): 1-92.

Lapini L., Dall'Asta A., Dublo L., Spoto M., Venier E., 1996 (1995). Materiali per una teriofauna dell'Italia Nord - Orientale (Mammalia, Friuli-Venezia Giulia). *Gortania* 17: 149-248.

Pascutto T., Balestrieri A., 2000. Note sui Chiroterri troglodili osservati in alcune cavità del Piemonte. *Orso Speleo Biellese C.A.I., Biella*. 27(21): 18-31.

Regione Liguria, 2008, Carta della Biodiversità, www.ambienteinliguria.it

Ruffo S., Stoch F., 2005. Checklist and distribution of the Italian fauna. . *Memorie del Museo Civico di Storia Naturale di Verona*, 2.Serie, Sezione Scienze della Vita 18.

S.Te.P. (Stazione Teriologica Piemontese), 2010. Azioni di tutela delle colonie di chiroterri di grande valore conservazionistico associate a siti di pertinenza di aziende agricole. Rendicontazione delle attività realizzate (2008/2010). Relazione interna per conto Assessorato Regionale Agricoltura, Regione Piemonte.

Sindaco R., Baratti N. , Boano G., 1992. I Chiroterri del Piemonte e della Valle d'Aosta. *Hystrix*. (n.s.) 4 (1): 1-40.

Spada M., Preatoni G., Tosi G., Martinoli A., 2010. Piano di monitoraggio dei Vertebrati terrestri di interesse comunitario (Direttive 79/409/CEE e 92/43/CEE) in Lombardia. Il monitoraggio dei Chiroterri. Fondazione Lombardia per l'Ambiente, Università degli Studi dell'Insubria.

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Toffoli R., 2011. Studio su avifauna e chiroterrofauna per progetto d'impianto eolico "Le terre del Giarolo" Comuni di Albera Ligure, Cabella Ligure, Cantalupo Ligure, Fabbrica Curone Montacuto (Alessandria) ai sensi della D.G.R. Regione Piemonte n. 20- 11717 del 6 luglio 2009. (Rapporto inedito).

Vigorita V., Cucè L., 2008. La fauna selvatica in Lombardia. Rapporto 2008 su distribuzione, abbondanza e stato di conservazione di uccelli e mammiferi.

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

Regione Lombardia. Pp. 364.

Zagmajster M., Quadracci A., Filacorda S., in stampa. New records of bats in the Province of Trieste (Friuli Venezia Giulia Region), northeastern Italy. Boll. Mus. Civ. St. Nat. Trieste, 55.

2.3 Range

| | |
|---|---|
| 2.3.1 Surface area - Range (km ²) | 90300 |
| 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 | |
| 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 ²) 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 239 max 239 |
| 2.4.3 Additional information | Definition of locality Conversion method Problems Impossible to convert grids into individuals |
| 2.4.4 Year or period | 1996-2012 |
| 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 |
| 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 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 (km ²) |
| 2.5.2 Year or period |

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

| | |
|---|---|
| 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 | Expert based |
| 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 (km ²) | |
| 2.5.10 Reason for change | Improved knowledge/more accurate data Use of different method |

2.6 Main Pressures

| Pressure | ranking | pollution qualifier(s) |
|---|-----------------------|------------------------|
| abandonment of pastoral systems, lack of grazing (A04.03) | medium importance (M) | N/A |
| use of biocides, hormones and chemicals (A07) | high importance (H) | N/A |
| Light pollution (H06.02) | medium importance (M) | N/A |
| modification of cultivation practices (A02) | high importance (H) | N/A |
| mowing / cutting of grassland (A03) | medium importance (M) | N/A |
| demolishment of buildings & human structures (E06.01) | high importance (H) | N/A |
| reconstruction, renovation of buildings (E06.02) | high importance (H) | N/A |
| closures of caves or galleries (G05.08) | high importance (H) | N/A |
| speleology (G01.04.02) | medium importance (M) | N/A |
| recreational cave visits (G01.04.03) | medium importance (M) | N/A |
| wind energy production (C03.03) | 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) |
|---|-----------------------|------------------------|
| abandonment of pastoral systems, lack of grazing (A04.03) | medium importance (M) | N/A |
| use of biocides, hormones and chemicals (A07) | high importance (H) | N/A |
| Light pollution (H06.02) | medium importance (M) | N/A |
| modification of cultivation practices (A02) | high importance (H) | N/A |
| mowing / cutting of grassland (A03) | medium importance (M) | N/A |
| demolishment of buildings & human structures (E06.01) | high importance (H) | N/A |
| reconstruction, renovation of buildings (E06.02) | high importance (H) | N/A |
| closures of caves or galleries (G05.08) | high importance (H) | N/A |
| speleology (G01.04.02) | medium importance (M) | N/A |
| recreational cave visits (G01.04.03) | medium importance (M) | N/A |
| wind energy production (C03.03) | low importance (L) | N/A |
| Roads, paths and railroads (D01) | low importance (L) | N/A |

2.7.1 Method used – threats expert opinion (1)

2.8 Complementary Information

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

2.8.1 Justification of % thresholds for trends

2.8.2 Other relevant Information

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 N/A

2.9.3. Habitat assessment Inadequate (U1)
qualifiers N/A

2.9.4. Future prospects assessment Inadequate (U1)
qualifiers N/A

2.9.5 Overall assessment of Conservation Status Inadequate (U1)

2.9.5 Overall trend in Conservation Status declining (-)

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 |
|--|--|-----------------------|----------------|----------------------------------|
| Other agriculture-related measures (2.0) | Administrative | medium importance (M) | Both | No effect Not evaluated |
| Other forestry-related measures (3.0) | Administrative | medium importance (M) | Inside | No effect |
| Restoring/improving forest habitats (3.1) | Recurrent | medium importance (M) | Both | Maintain Enhance Long term |
| Adapt forest management (3.2) | Administrative Contractual | high importance (H) | Both | Maintain Long term |
| Other spatial measures (6.0) | Administrative Recurrent One-off | medium importance (M) | Inside | Maintain Enhance Long term |
| Establish protected areas/sites (6.1) | Administrative | medium importance (M) | Inside | Maintain Enhance Long term |
| Legal protection of habitats and species (6.3) | Legal | high importance (H) | Both | Not evaluated |

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

| Specific single species or species group management measures (7.4) | One-off | medium importance (M) | Both | Not evaluated |
|--|---------|-----------------------|------|---------------|
|--|---------|-----------------------|------|---------------|

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 Paolo Agnelli, Mara Calvini, Luca Cistrone, Michele Ferretto, Danilo Russo, Dino Scaravelli, Martina Spada, Roberto Toffoli, Simone Vergari (Italian Group for bat Research).

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

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

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2.3 Range

| | |
|---|--|
| 2.3.1 Surface area - Range (km ²) | 52700 |
| 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 | |
| 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 ²) 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 N/A min max |
| 2.4.2 Population size (other than individuals) | Unit number of map 10x10 km grid cells (grids10x10) min 149 max 149 |
| 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 expert opinion with no or minimal sampling (1) |
| 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 | |

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

| | | | |
|--|---------------------------------------|-------------------------|---------------------|
| 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 | Use of different method | |

2.5 Habitat for the Species

| | |
|---|---|
| 2.5.1 Surface area - Habitat (km ²) | |
| 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 | Expert based |
| 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 (km ²) | |
| 2.5.10 Reason for change | Improved knowledge/more accurate data Use of different method |

2.6 Main Pressures

| Pressure | ranking | pollution qualifier(s) |
|---|-----------------------|------------------------|
| abandonment of pastoral systems, lack of grazing (A04.03) | medium importance (M) | N/A |
| use of biocides, hormones and chemicals (A07) | high importance (H) | N/A |
| Light pollution (H06.02) | medium importance (M) | N/A |
| modification of cultivation practices (A02) | high importance (H) | N/A |
| mowing / cutting of grassland (A03) | medium importance (M) | N/A |
| demolishment of buildings & human structures (E06.01) | high importance (H) | N/A |
| reconstruction, renovation of buildings (E06.02) | high importance (H) | N/A |
| closures of caves or galleries (G05.08) | high importance (H) | N/A |
| speleology (G01.04.02) | medium importance (M) | N/A |
| recreational cave visits (G01.04.03) | medium importance (M) | N/A |
| wind energy production (C03.03) | 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) |
|---|-----------------------|------------------------|
| abandonment of pastoral systems, lack of grazing (A04.03) | medium importance (M) | N/A |
| use of biocides, hormones and chemicals (A07) | high importance (H) | N/A |
| Light pollution (H06.02) | medium importance (M) | N/A |
| modification of cultivation practices (A02) | high importance (H) | N/A |
| mowing / cutting of grassland (A03) | medium importance (M) | N/A |
| demolishment of buildings & human structures (E06.01) | high importance (H) | N/A |

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

| | | |
|--|-----------------------|-----|
| reconstruction, renovation of buildings (E06.02) | high importance (H) | N/A |
| closures of caves or galleries (G05.08) | high importance (H) | N/A |
| speleology (G01.04.02) | medium importance (M) | N/A |
| recreational cave visits (G01.04.03) | medium importance (M) | N/A |
| wind energy production (C03.03) | low importance (L) | N/A |
| Roads, paths and railroads (D01) | 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

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 N/A

2.9.3. Habitat assessment Inadequate (U1)

qualifiers N/A

2.9.4. Future prospects assessment Inadequate (U1)

qualifiers N/A

2.9.5 Overall assessment of Conservation Status Inadequate (U1)

2.9.5 Overall trend in Conservation Status declining (-)

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 |
|--|-------------|-----------------------|----------------|------------------------|
| Other agriculture-related measures (2.0) | Contractual | medium importance (M) | Inside | No effect |
| Maintaining grasslands and other open habitats (2.1) | Legal | medium importance (M) | Both | Not evaluated |
| Other forestry-related measures (3.0) | Contractual | medium importance (M) | Inside | No effect |

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

| | | | | |
|--|-------------------------|-----------------------|------|---------------------------|
| Legal protection of habitats and species (6.3) | Legal | high importance (H) | Both | Not evaluated |
| Manage landscape features (6.4) | Legal | medium importance (M) | Both | Not evaluated |
| Specific single species or species group management measures (7.4) | Recurrent One-off | high importance (H) | Both | Unknown Not evaluated |
| Other measures (8.0) | Legal Administrative | medium importance (M) | Both | Maintain Not evaluated |