

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 | 1012 |
| 0.2.2 Species name | Patella ferruginea |
| 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 expert opinion with no or minimal sampling (1) |
| 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

2.2 Published sources

Marine Mediterranean (MMED)

The present species assessment (fields 0.1-2.9) has been compiled by Anna Alonzi, Piero Genovesi, Francesca Ronchi (ISPRA). Information and data have been extracted from MSFD Supporting documents on the Initial Assessment on Benthic Species, including methodology, data used and results (ISPRA, 2013). Expert judgements have been provided by Leonardo Tunesi (ISPRA).

- BIAGI V., POLI D., 1986 - Considerazioni su una popolazione di *Patella ferruginea* Gmelin, 1791 per le acque del promontorio di Piombino. Boll. Malacol., 22 (5-8):171-174.
- CALVO M., TEMPLADO J., PENCHASZADEH P., 1998 – Reproductive biology of the gregarious Mediterranean vermetid gastropod *Dendropoma petraeum*. J Mar Bio Ass UK, 78: 522-549.
- CASU M., RIVERA-INGRAHAM G.A., COSSU P., LAI T., SANNA D., et al., 2011. Patterns of spatial genetic structuring in the endangered limpet *Patella ferruginea*: implications for the conservation of a Mediterranean endemic. Genetica 139 (10): 1293-1308.
- COPPA S., DE LUCIA G.A., MASSARO G., MAGNI P., 2012 - Density and distribution of *Patella ferruginea* in a marine protected area (western Sardinia, Italy): Constraint analysis for population conservation. Mar. Sci., 13(1): 108-117.
- COSSU A., GAZALE V., ORRU P.; PALA D., PUDDU A., 2000 - Morphological elements and cartography of benthic community in Rada della Reale, Asinara Island (Sardinia NW). Biol. Mar. Mediterr. 7 (1, pt. 2): 478-487.
- CHRISTIAENS J., 1973 – Revision du genre *Patella* (Mollusca: Gasteropoda) Bull. Mus. Hist. Nat. Paris, 182: 1305-1392.
- CRISTO B., 2004. Osservazioni su *Patella ferruginea* Gmelin, 1791 (Mollusco, Gasteropoda) nel Parco Nazionale dell'Arcipelago della Maddalena: isolotto di Spargiotto. 35° Congresso SIBM. Genova:19-20 luglio 2004: pag. 113.
- CRISTO B., CARONNI S., 2008. Osservazioni sullo stato di conservazione di *Patella ferruginea* (Gmelin, 1791) nelle vicinanze di Capo Ceraso (Golfo di Olbia, Sardegna nord – orientale). Biologia Marina mediterranea, 15 (1): 302.303.
- Cristo B., Dedola G.L., Lai T., Cossu P., Sanna D, Curini-Galletti M., Meloni C., Casu M. 2010. Analysis of the genetic variability of *Patella ferruginea* Gmelin,

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

- 1791 (Gastropoda: Patellidae) - Populations from the north-east sardinia. Biol. Mar. Mediterr. (2010), 17 (1): 324-325.
- CURINI-GALLETTI M., 1979 - Ritrovamento di una *Patella ferruginea*. Notiziario CISMA, 1: 53-54.
- Censimento della malacofauna marina delle coste italiane - On line: <http://estaxp.santateresa.enea.it/www/censim/censimento.html>
- GAZALE V., ZANELLO A., COSSU A., CURINI GALLETTI M., 2004 - Monitoraggio di una popolazione di *Patella ferruginea* Gmelin nel Parco Nazionale dell'Asinara. 35° Congresso SIBM. Genova, 19-20 luglio 2004: pag. 27.
- GIALLARA P.A., PESSANI D., VETERE M., 2000 - Mapping of protected species: rocks of Capo Monte Russu (Sardinia). Biol. Mar. Mediterr. 7 (1, pt. 2): 588-589.
- LABOREL-DEGUEN F., LABOREL J., 1991. Statut de *Patella ferruginea* Gmelin en Méditerranée. In: Boudouresque C.F., Avon M., Gravez V. (eds.), Les espèces Marines à protéger en Méditerranée. GIS Posidonie Publ., Fr.:91-103.
- Lai T., Casu D., Cossu P., Sussarellu R., Sella G., Dedola G.L., Cristo B., Curini-Galletti M., Casu M. 2009. The role of a marine protected area in safeguarding the genetic diversity of rare species: the case of *Patella ferruginea* Gmelin, 1791 (Gastropoda: Patellidae). 40° Congresso della Società Italiana di Biologia Marina, Livorno, 26-29 maggio 2009: 303-304.
- MINISTERO DELL'AMBIENTE– ISPETTORATO CENTRALE PER LA DIFESA DEL MARE, 1999 - Studio di fattibilità per l'istituzione dell'area marina protetta dell'Isola dell'Asinara prevista dall'Articolo 36 della Legge Quadro sulle aree protette N° 394/91. Relazione di Seconda fase Vol. II. ICRAM, Roma 1999.
- MINISTERO DELL'AMBIENTE – ISPETTORATO CENTRALE PER LA DIFESA DEL MARE, 1999. Studio di fattibilità per l'istituzione dell'area marina protetta dell'Arcipelago della Maddalena prevista dall'Articolo 36 della Legge Quadro sulle aree protette N° 394/91. Relazione di Seconda fase Vol. II. ICRAM, Roma 1999.
- POPPE GUIDO T., GOTO Y., 1991 -European Seashells, Polyplacophora, Caudofoveata, Solenogaster, Gastropoda. Vol.1 Verlag Christa Hemmen: 352 pp.
- PORCHEDDU A., MILELLA I., 1991 - Aperçu sur l'écologie et sur la distribution de *Patella ferruginea* (L.) Gmelin 1791 en mers italiennes. In: BOUDOURESQUE C.F., AVON M., GRAVEZ V. (eds.), Les espèces Marines à protéger en Méditerranée. GIS Posidonie Publ., Fr.: 119-128.
- Prof. Andrea Cossu - Università di Sassari - Dipartimento di Scienze Botaniche, Ecologiche e Geologiche. 2009. "Implementazione dei SIC marini della Regione Sardegna. Sintesi delle conoscenze scientifiche sui SIC marini e segnalazioni di nuovi potenziali Siti".
- 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 degli habitat e delle specie".
- SCOTTI G., CHEMELLO R., 2001. I Molluschi marini mediterranei degni di protezione: stato delle conoscenze e forme di tutela. Boll. Malacol., 36(1-4):61-70.
- TUNESI L., LAURIANO G., DI NORA T., SALVATI E., 1998 - Studi Conoscitivi per l'Istituzione dell'Area Marina Protetta dell'Arcipelago della Maddalena prevista dall'Articolo 36 della legge quadro sulle Aree Protette N° 394/91. Relazione di Seconda Fase. Volume I. Convenzione 22-12-97 Tra il Ministero dell'Ambiente-Ispettorato Centrale per la Difesa del Mare e l'ICRAM: 1-474.
- TUNESI L., DI NORA T., AGNESI S., CASSESE M.L., DE MAIO E., DI MARTINO V., DIVIACCO G., MO G., MOLINARI A., BAVA S., ANNUNZIATELLIS A., 2005 - Studio Conoscitivo per l'Area Marina Protetta in corso d'istituzione "Isola Gallinaria".

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

Volume I. Protocollo d'Intesa 13/7/2004 e successive modifiche tra il Ministero dell'Ambiente e della Tutela del Territorio - Direzione protezione Natura - e l'ICRAM: 1-174.
 VILLA F., TUNESI L., AGARDY T., 2002 - Zoning Marine Protected Areas through Spatial Multiple-Criteria Analysis: the Case of the Asinara Island National Marine Reserve of Italy. Conservation Biology, 16 (2): 515-526.
<http://eunis.finsiel.ro/eunis/sites.jsp>

2.3 Range

| | |
|---|---|
| 2.3.1 Surface area - Range (km ²) | 43200 |
| 2.3.2 Method - Range surface area | Estimate based on expert opinion with no or minimal sampling (1) |
| 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 opinion |
| 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 localities (localities) min 22 max 22 |
| 2.4.3 Additional information | Definition of locality Areas where the species has been recorded since 1960 Conversion method Not available Problems |
| 2.4.4 Year or period | 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 | 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 |
| 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 opinion |
| 2.4.15 Reason for change | Improved knowledge/more accurate data |

2.5 Habitat for the Species

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

| | |
|---|---------------------------------------|
| 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 | Good |
| 2.5.4 b) Quality of habitat - method | Expert judgement |
| 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 ²) | |
| 2.5.10 Reason for change | Improved knowledge/more accurate data |

2.6 Main Pressures

| Pressure | ranking | pollution qualifier(s) |
|---|---------------------|------------------------|
| removal for collection purposes (F05.06) | high importance (H) | N/A |
| Hunting, fishing or collecting activities not referred to above (F06) | high importance (H) | N/A |
| Marine water pollution (H03) | low importance (L) | N/A |
| Fishing and harvesting aquatic resources (F02) | high importance (H) | N/A |

2.6.1 Method used – pressures mainly based on expert judgement and other data (2)

2.7 Main Threats

| Threat | ranking | pollution qualifier(s) |
|---|---------------------|------------------------|
| removal for collection purposes (F05.06) | high importance (H) | N/A |
| Hunting, fishing or collecting activities not referred to above (F06) | high importance (H) | N/A |
| Marine water pollution (H03) | low importance (L) | N/A |
| Fishing and harvesting aquatic resources (F02) | high importance (H) | 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 distribution map for this species is based on a limited number of presence data, and should therefore be considered as a rough picture of the overall area of presence of *Patella ferruginea*

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 Bad (U2) qualifiers stable (=) |

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

| | |
|---|------------|
| 2.9.5 Overall assessment of Conservation Status | Bad (U2) |
| 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 | |
| | min | | max |
| 3.1.2 Method used | N/A | | |
| 3.1.3 Trend of population size within | N/A | | |

3.2 Conversation Measures

Notes

Species name: *Patella ferruginea* (1012)

| Field label | Note | User |
|-----------------|---|----------------|
| 1.1.5 Range Map | The distribution map for this species is based on a limited number of presence data, and should therefore be considered as a rough picture of the overall area of presence of <i>Patella ferruginea</i> | ISPRA_ AUNA |

Species name: *Patella ferruginea* (1012) Region code: MMED

| Field label | Note | User |
|---|---|----------------|
| 2.3.1 Surface area - Range (km ²) | It is important to point out that only the surface area of the habitat that can actually host the species should be considered. | ISPRA_ AUNA |



_F



_F
