

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

|   |  |
|---|--|
| 0.1 Member State                          | GR                                       |
| 0.2.1 Species code                        | 1481                                     |
| 0.2.2 Species name                        | <i>Paeonia clusii</i> ssp. <i>rhodia</i> |
| 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 | Yes  |
| 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     | Yes  |
| 1.1.5 Range map          | Yes  |

## 2. Biogeographical Or Marine Level

### 2.1 Biogeographical Region

#### Mediterranean (MED)

### 2.2 Published sources

Carlström A. 1987. A survey of the flora and phytogeography of Rodhos, Simi, Tilos and the Marmaris peninsula (SE Greece, SW Turkey). Ph.D. Thesis, University of Lund, Lund, Sweden

Phitos, D. 1995: *Paeonia clusii* F.C. Stearn subsp. *rhodia* (Stearn) Tzanoud. (Paeoniaceae). In Phitos, D., Strid, A., Snogerup, S., Greuter, W. (eds): The Red Data Book of Rare and Threatened Plants of Greece, 400-401. – WWF, Athens

Strid A. 1988-2014. Flora Hellenica Database. Copenhagen

Τζανουδάκης Δ. 1977. Κυτταροταξινομική μελέτη του γένους *Paeonia* L. εν Ελλάδι. Διδακτορική Διατριβή, Πανεπιστήμιο Πατρών, Πάτρα

### 2.3 Range

|   |   |
|---|---|
| 2.3.1 Surface area - Range (km <sup>2</sup> ) | 328   |
| 2.3.2 Method - Range surface area             | Complete survey/Complete survey or a statistically robust estimate (3)  |
| 2.3.3 Short-term trend period                 | 2000-2012   |
| 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 <sup>2</sup> )<br>operator approximately equal to (≈)<br>unkown No<br>method Favourable reference range was based on the sum of the historic and current distribution of the species. A 1995 record from the area of Lindos needs confirmation and was excluded. |
| 2.3.10 Reason for change                      | Improved knowledge/more accurate dataUse of different method  |

### 2.4 Population

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

|   |   |  |     |                     |
|---|---|--|-----|---------------------|
| 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 tufts (tufts)  |     |                     |
|   | min   | 1000   | max | 5000                |
| 2.4.3 Additional information                            | Definition of locality  |  |     |                     |
|   | Conversion method   |  |     |                     |
|   | Problems  | The species is a rhizomatous perennial which forms stands of sizes 0.5 – 3 m <sup>2</sup> with 1 – 12 flowering shoots. It is impossible to distinguish individuals since the stands may or may not be connected underground. The number of separate tufts (stands) at a distance of 10 cm was used as a substitute for the number of individuals. |     |                     |
| 2.4.4 Year or period                                    | 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                           |   |  |     |                     |
| 2.4.7 Short term trend direction                        | unknown (x)   |  |     |                     |
| 2.4.8 Short-term trend magnitude                        | min   |  | max | confidence interval |
| 2.4.9 Short-term trend method                           | Absent data (0)   |  |     |                     |
| 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  | 1370   |     |                     |
|   | operator  | N/A  |     |                     |
|   | unknown   | No   |     |                     |
|   | method  | The favourable reference population was set as the number of individuals counted throughout the distribution of the plant in 2014. It would be better expressed as larger than 1370.   |     |                     |
| 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> )   | 0,06  |
| 2.5.2 Year or period                              | 2012  |
| 2.5.3 Method used - habitat                       | Complete survey/Complete survey or a statistically robust estimate (3)  |
| 2.5.4 a) Quality of habitat                       | Moderate  |
| 2.5.4 b) Quality of habitat - method              | The main habitat of the species is cypress (habitat type 9290) and pine forest (habitat type 9540) but it can also be found in medium to tall Mediterranean shrub at altitudes 80 – 700 m. The habitat is of good quality regarding species composition and structure in the area of Mt Profitis Ilias. At other areas the habitat is degraded either due to large scale infection by the scale insect <i>Marshalina hellenica</i> or due to forest fires and subsequent lack of regeneration or slow regeneration. |
| 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 <sup>2</sup> ) | 300   |

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

## 2.5.10 Reason for change

Improved knowledge/more accurate data

## 2.6 Main Pressures

| Pressure   | ranking               | pollution qualifier(s) |
|--|-----------------------|------------------------|
| burning down (J01.01)  | high importance (H)   | N/A                    |
| reduction or loss of specific habitat features (J03.01)      | medium importance (M) | N/A                    |
| fire (natural) (L09)   | medium importance (M) | N/A                    |
| non intensive grazing (A04.02)                               | low importance (L)    | N/A                    |
| hand collection (F04.02.02)                                  | low importance (L)    | N/A                    |
| disposal of household / recreational facility waste (E03.01) | low importance (L)    | N/A                    |
| introduction of disease (microbial pathogens) (K04.03)       | 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 other

## 2.7 Main Threats

| Threat   | ranking               | pollution qualifier(s) |
|--|-----------------------|------------------------|
| burning down (J01.01)  | high importance (H)   | N/A                    |
| reduction or loss of specific habitat features (J03.01)      | medium importance (M) | N/A                    |
| fire (natural) (L09)   | medium importance (M) | N/A                    |
| non intensive grazing (A04.02)                               | low importance (L)    | N/A                    |
| hand collection (F04.02.02)                                  | low importance (L)    | N/A                    |
| disposal of household / recreational facility waste (E03.01) | low importance (L)    | N/A                    |
| introduction of disease (microbial pathogens) (K04.03)       | 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

Note on 2.4.2. Population counts were made in 2014 and 1370 tufts were counted. This number corresponds to 285 flowering plants (1 – 12 shoots each) and 1086 plants in the vegetative phase (either young or adult but not flowering at the year of estimation). The tuft sizes were a) adult 38 % 0.5 m<sup>2</sup>, 56 % 0.5 – 1 m<sup>2</sup>, and 6 % 1 – 3 m<sup>2</sup>; b) vegetative 78 % 0.5 m<sup>2</sup>, 22 % 0.5 – 1 m<sup>2</sup>. Population counts were made at all the 2x2 cells of the species' distribution but it is certain that at least in the 9 cells corresponding to the area of Mt Profitis Ilias to Kolympia where 1294 plants were counted the population size is larger, maybe double.

Note on 3.1.1. Within the borders of the Natura 2000 sites of Rodos, 895 tufts were counted in 2014, but the total population may be much larger, especially in the area of Profitis Ilias Mt.

Note on 2.6, 2.7. Reduction or loss of specific habitat features refers to the infection by the scale insect *Marshallina hellenica*. Introduction of disease refers to pathogens causing curling of the leaves and destruction of seeds (5 % of the total population).

### 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

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

|   |  |
|---|--|
| 2.9.2. Population                               | assessment Favourable (FV)<br>qualifiers N/A         |
| 2.9.3. Habitat                                  | assessment Inadequate (U1)<br>qualifiers unknown (x) |
| 2.9.4. Future prospects                         | assessment Inadequate (U1)<br>qualifiers unknown (x) |
| 2.9.5 Overall assessment of Conservation Status | Inadequate (U1)                                      |
| 2.9.5 Overall trend in Conservation Status      | unknown (x)  |

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

### 3.1 Population

|                                       |   |                         |     |      |
|---------------------------------------|---|-------------------------|-----|------|
| 3.1.1 Population Size                 | Unit  | number of tufts (tufts) |     |      |
|                                       | min   | 500                     | max | 5000 |
| 3.1.2 Method used                     | Estimate based on partial data with some extrapolation and/or modelling (2) |                         |     |      |
| 3.1.3 Trend of population size within | unknown (x)   |                         |     |      |

### 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 |
|--|------------|---------------------|----------------|------------------------|
| Legal protection of habitats and species (6.3)     | Legal      | high importance (H) | Inside         | Enhance Long term      |
| Regulation/ Management of hunting and taking (7.1) | Legal      | high importance (H) | Inside         | Long term              |