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	**1053**
0.2.2 Species name	**Zerynthia polyxena**
0.2.3 Alternative species scientific name	Zerynthia cassandra
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	2007-2012
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 Fabio Stoch (on behalf ot the Comitato Scientifico per la Fauna d'Italia) and Anna Alonzi, Piero Genovesi, Francesca Ronchi (ISPRA). Information, unpublished data and expert judgements have been provided by Emilio Balletto and Simona Bonelli (Torino). Zinetti F., Dapporto L., Vovlas A., Chelazzi G., Bonelli S., Balletto E., Ciofi C., 2013. When the rule becomes the exception. No evidence of gene flow between two Zerynthia cryptic butterfly species suggests the emergence of a new model group. PlosSOne (in press) Bonelli S., Cerrato C., Loglisci N., Balletto E., 2011. Population extinctions in the Italian diurnal Lepidoptera: an analysis of possible causes. Journal of Insect Conservation, 15: 879-890, ISSN: 1366-638X, doi: 10.1007/s10841-011-9387-6 Dapporto L., 2010. Speciation in Mediterranean refugia and post-glacial expansion of Zerynthia polyxena (Lepidotera, Papilionidae). J. Zool. Syst. Evol.

2.3 Range

2.3.1 Surface area - Range (km²)	78500	
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 (km²)	
	operator	approximately equal to (≈)
	unkown	No
	method	Expert opinion
2.3.10 Reason for change	Improved knowledge/more accurate dataUse of different method	

2.4 Population

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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	215	max	215
2.4.3 Additional information	Definition of locality			
	Conversion method	not available		
	Problems	it is impossible to convert grids into individuals		
2.4.4 Year or period	2007-2012			
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	approximately equal to (≈)		
	unknown	No		
	method	Expert opinion		
2.4.15 Reason for change				

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 opinion
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 (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)
abandonment / lack of mowing (A03.03)	low importance (L)	N/A
Forestry activities not referred to above (B07)	medium importance (M)	N/A

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

2.7 Main Threats

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

Threat	ranking	pollution qualifier(s)
abandonment / lack of mowing (A03.03)	low importance (L)	N/A
Forestry activities not referred to above (B07)	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 populations of the Mediterranean area belong to Z. cassandra (Dapporto 2010).
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	N/A		
3.1.3 Trend of population size within	N/A		

3.2 Conversation Measures

2. Biogeographical Or Marine Level

2.1 Biogeographical Region	**Continental (CON)**
2.2 Published sources	The present species assessment (fields 0.1-2.9) has been compiled by Fabio Stoch (on behalf ot the Comitato Scientifico per la Fauna d'Italia) and Anna Alonzi, Piero Genovesi, Francesca Ronchi (ISPRA). Information, unpublished data and expert judgements have been provided by Emilio Balletto and Simona Bonelli (Torino). Zinetti F., Dapporto L., Vovlas A., Chelazzi G., Bonelli S., Balletto E., Ciofi C., 2013. When the rule becomes the exception. No evidence of gene flow between two Zerynthia cryptic butterfly species suggests the emergence of a new model group. PlosSOne (in press)

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

Bonelli S., Cerrato C., Loglisci N., Balletto E., 2011. Population extinctions in the Italian diurnal Lepidoptera: an analysis of possible causes. Journal of Insect Conservation, 15: 879-890, ISSN: 1366-638X, doi: 10.1007/s10841-011-9387-6
Dapporto L., 2010. Speciation in Mediterranean refugia and post-glacial expansion of Zerynthia polyxena (Lepidotera, Papilionidae). J. Zool. Syst. Evol. Res., 48: 229-237.

2.3 Range

2.3.1 Surface area - Range (km²)	61200
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 (km²) operator approximately equal to (≈) unkown 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 map 10x10 km grid cells (grids10x10) min 152 max 152
2.4.3 Additional information	Definition of locality Conversion method not available Problems it is impossible to convert grids into individuals
2.4.4 Year or period	2007-2012
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 approximately equal to (≈) unknown No method Expert opinion
2.4.15 Reason for change	

2.5 Habitat for the Species

2.5.1 Surface area - Habitat (km²)	

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

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 opinion
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 (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)
Forestry activities not referred to above (B07)	medium importance (M)	N/A
abandonment / lack of mowing (A03.03)	low importance (L)	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)
abandonment / lack of mowing (A03.03)	low importance (L)	N/A
Forestry activities not referred to above (B07)	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	Z. polyxena was recently divided in two species; populations North to Po river belong to Z. polyxena, South of Po river to Z. cassandra (Dapporto 2010)
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

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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

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 Fabio Stoch (on behalf ot the Comitato Scientifico per la Fauna d'Italia) and Anna Alonzi, Piero Genovesi, Francesca Ronchi (ISPRA). Information, unpublished data and expert judgements have been provided by Emilio Balletto and Simona Bonelli (Torino). Zinetti F., Dapporto L., Vovlas A., Chelazzi G., Bonelli S., Balletto E., Ciofi C., 2013. When the rule becomes the exception. No evidence of gene flow between two Zerynthia cryptic butterfly species suggests the emergence of a new model group. PlosSOne (in press) Bonelli S., Cerrato C., Loglisci N., Balletto E., 2011. Population extinctions in the Italian diurnal Lepidoptera: an analysis of possible causes. Journal of Insect Conservation, 15: 879-890, ISSN: 1366-638X, doi: 10.1007/s10841-011-9387-6 Dapporto L., 2010. Speciation in Mediterranean refugia and post-glacial expansion of Zerynthia polyxena (Lepidotera, Papilionidae). J. Zool. Syst. Evol.

2.3 Range

2.3.1 Surface area - Range (km²)	18400		
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 (km²)		
	operator	approximately equal to (≈)	
	unkown	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 map 10x10 km grid cells (grids10x10)		
	min	48	max	48
2.4.3 Additional information	Definition of locality			
	Conversion method	not available		
	Problems	it is impossible to convert grids into individuals		

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

	Problems		
2.4.4 Year or period	2007-2012		
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	approximately equal to (≈)	
	unknown	No	
	method	Expert opinion	
2.4.15 Reason for change			

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 opinion
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 (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)
abandonment / lack of mowing (A03.03)	low importance (L)	N/A
Forestry activities not referred to above (B07)	medium importance (M)	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)
abandonment / lack of mowing (A03.03)	low importance (L)	N/A
Forestry activities not referred to above (B07)	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	ALP region is inhabited by Z. polyxena s.str.
2.8.3 Trans-boundary assessment	

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

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

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	N/A		
3.1.3 Trend of population size within	N/A		

3.2 Conversation Measures