DIPARTIMENTO AGRICOLTURA
SERVIZIO FORESTE E PARCHI

IT7110092 – Monte Salviano. Scientific report

Introduction

This document contains the justification of the modifications (removal, decrease in area, change of representativeness from significant to non-significant, etc.) of the habitats listed in Annex I and species listed in Annex II of the Directive 92/43/EEC of the Natura 2000 network of the Abruzzo Region.

The undersigned Department of Agriculture, Forestry and Parks Service has made use of specialist collaboration from the Mesva Department of the University of L'Aquila to update the Standard Forms. Part of the reports produced have been used in this document.

In Abruzzo the identification and perimeter of the SCI took place thanks to the Bioitaly program with contract n.1132/SCN/P95 in 1997. In particular with regards to the habitats, the standard forms were filled in by inserting the biogeographical regions, the habitats of the Annex I of the Directive, with the percentage of coverage in each site, the representativeness, the relative surface area, the degree of conservation and the global evaluation. Considering that since the establishment of the network, apart from a few cases, the forms have not been updated, and considering, by the own admission of the botanists in charge of the work at the time: "The interpretation of the habitats listed in Annex I has been made, where not in conflict with the scientific contents, extensively, also including phytocenoses not mentioned in the commentary manuals, but similar to those explicitly mentioned and of particular value."

Considering this and considering the enormous step forward made by technology in the GIS field for georeferencing and mapping, the data on the extension of habitats is most of the time untrue in the current state of affairs, not due to changes in the territory but due to a simple increase in knowledge that has brought to light genuine errors in habitat attribution.

This is also the case for the Monte Salviano SCI, which saw the first standard form drafted in 1995, but it was not until the year 2015 that there was the first real opportunity for a survey with more punctual and widespread field surveys by experienced personnel (botanists and faunalists).

This particular process is particularly evident in the semi-natural habitats 6210 and 6220 which in the past had been attributed to many pasture meadows for which the cover estimate had been made exclusively using the "percentage of habitat in the site" method.

It should be noted that the habitat surfaces estimated in the current Standard forms derive from the products indicated above.

In 2017 and 2018 the Abruzzo Region approved the Conservation Measures for the Abruzzo sites with various DGRs. Furthermore, management plans have been developed for almost all sites which have deepened and updated knowledge on habitats and species.

While significant changes have been made to the distribution and assessment of habitats and species in these documents, no changes have been made to the N2000 standard forms.

The changes to the Standard Formulary illustrated in this document arise from a critical review of the products available on the Natura 2000 sites of the Abruzzo Region in light of the available scientific knowledge. In addition to existing reports and habitat type maps of the sites, our review was based on:

• general reports, habitat interpretation manuals, IV monitoring report data;

• analysis of published and unpublished vegetation surveys;
• analysis of existing land use and land cover maps or other thematic maps (e.g. vegetation maps);
• analysis of past and recent orthophotos;
• analysis of past and recent satellite images

IT7110092 – Monte Salviano. Habitat

Area reduction for habitats 6210 and 8210; deletion 6110

Habitat	**6210**
Standard Form cover (ha)	430
Standard Form representativity	B
Standard Form relative surface	C
Description of changes	Cover changes from 430 ha to 169,3 ha
Justification	Genuine scientific error
Habitat	**8210**
Standard Form cover (ha)	129
Standard Form representativity	B
Standard Form relative surface	C
Description of changes	Cover changes from 129 ha to 1,5 ha
Justification	Genuine scientific error
Habitat	**6110**
Standard Form cover (ha)	25,8
Standard Form representativity	C
Standard Form relative surface	C
Description of changes	Elimination
Justification	Genuine scientific error

The absence of previous field surveys between 1995 and 2015 and a thorough mapping survey of actual habitat areas can also be inferred from the values given in the Standard Form, which correspond to net percentages, as shown in the following list:

Codice habitat	**Superficie FS (ha)**	**% superficie FS**
5110	17.2	2
5130	86.0	10
6110	25.8	3

6210	430.0	50
6220	25.8	3
8210	129.0	15
91AA	94.6	11
91L0	17.2	2

Table 1 - Habitats present in the SDF and their extents in hectares and percentages

Such coverage is unlikely to be derived from photointerpretation maps with field surveys, but rather the result of remote interpretations made moreover with wide approximation.

During the drafting of the management plan, and the mapping of habitats (Di Bartolo, 2015), vegetation surveys including phytosociological analysis and accurate photointerpretation of the entire area of the site were carried out aimed at updating and returning the actual values of the areas covered by each habitat present. See the images below (fig. 1, fig.2 and fig.3).

The deletion of Habitat 6110 (Alysso-Sedion albi calcicolous or basophilic rupic grassland formations) is a consequence of recataloging on other forest habitats 91AA and 91L0.

In fact, a good part of the areas characterized by limestone cliffs with chasmophytic vegetation already 30 years ago were characterized by advancement and colonization of tree species such as Quercus s.pl., Carpinus, Ostrya. The choice in 1995 was to include these pioneer and sparse forests in Habitat 6110. Later in 2015, it was confirmed that the reference habitat could not be 6110 but rather either 91AA and 91L0, which then increased from 94.6 ha to 291.7 ha, and from 17.2 ha to 140.8 ha, respectively. The dominant reference species that characterized the area were tree species, as opposed to species typical of rupicola grassland habitats.
For habitats 6210 and 8210, there is a redefinition of the habitat area from the values on the standard form: field inspections defined smaller areas than those on the standard form: 169.3 ha for habitat 6210 and 1.5 ha for habitat 8210.

Figure 1. Mount Salviano site on Italian orthophotos from 1988.
In white are the habitat boundaries identified in 2015.

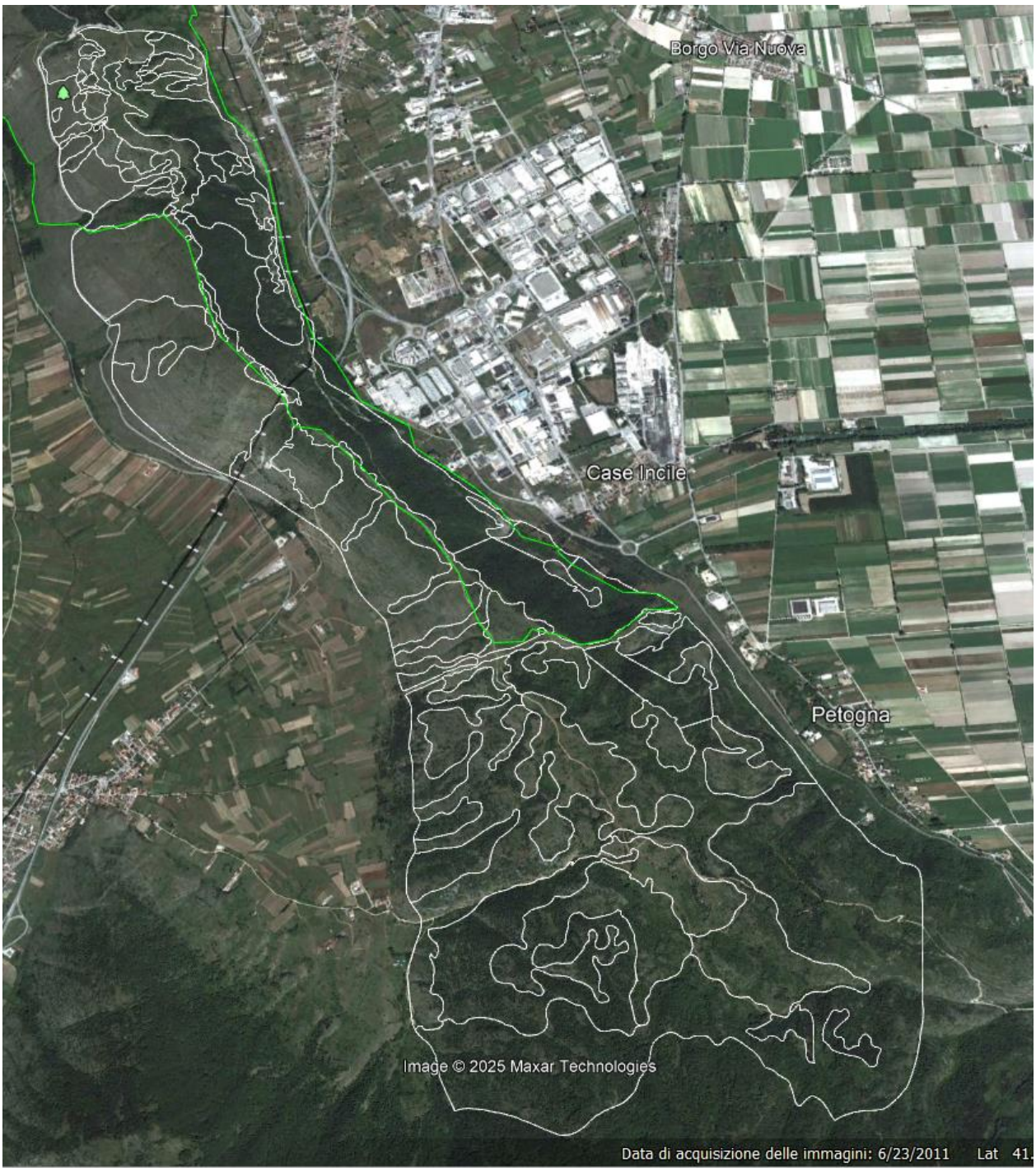

Figure 2. Monte Salviano site on 2011 Italian orthophotos.
In white are the habitat boundaries identified in 2015.

Figure 2.1. Mount Salviano site on 2011 Italian orthophotos (detail of habitat 91L0).
In white are the habitat boundaries identified in 2015.

Figure 3. Mount Salviano site on 2022 Italian orthophotos.
In white are the habitat boundaries identified in 2015.

Comparison of previous data over a 35-year period shows no obvious changes in vegetation. In fact, the site remains with the same apparent cover of agricultural, urbanized, forested, etc. areas.

This confirms that the area error was in the beginning and that there has been no real reduction in habitat.

In the case of Habitat 8210 (Limestone cliffs with chasmophytic vegetation) part of the area was recatalogued and belonged to:

1) to Habitat 5110 (Stable xerothermophilous formations of Buxus sempervirens on rocky slopes - Berberidion pp): this is increased from 17.2 ha to 32 ha

2) to Habitat 5130 (Juniperus communis formations on heaths or limestone meadows): this is from 86 ha to 128.7 ha.

This is because in the south-central Apennines there are very frequent contacts with high alliances or shrub scrub formations such as in our case Habitat 5130 "Juniperus communis formations on heaths or limestone meadows," consequently the spatial boundary in transition zones, where one habitat ends and another begins, is very difficult to interpret and identify unless specific and detailed field surveys are carried out.

Network coherence for habitats

6110
The fourth Italian report on Natura 2000 (2013-2018) reports an estimated minimum area of 42, 47 km2 for habitat in the Mediterranean region.
The hypothetical area reduction in the site is 0.258 km2 (25.8 hectares).
The contribution of habitat at the site to the national/biogeographic network is very low (0.6 percent), so the hypothetical reduction in habitat is not significant at the national/biogeographic level.

6210
The fourth Italian report on Natura 2000 (2013-2018) reports an estimated minimum area of 1178.63 km2 for habitat in the Mediterranean region.
The hypothetical area reduction in the site is 2.61 km2 (261 hectares).
The relative area of the habitat in the Monte Salviano site is C and is maintained C
The contribution of the habitat at the site to the national/biogeographic network is very low (0.22%) and therefore the hypothetical habitat reduction is not significant at the national/biogeographic level.

8210
The fourth Italian report on Natura 2000 (2013-2018) reports an estimated area of 471.17 km2 for the habitat in the Mediterranean region.
The hypothetical area reduction in the site is 1.27 km2 (127.5 ha).
The relative area of habitat in the site is C and is maintained C
The contribution of habitat at the site to the national/biogeographic network is low (0.27%) and therefore the hypothetical habitat reduction is not significant at the national/biogeographic level.

IT7110092 – Monte Salviano. Species

Elimination of species Triturus carnifex

Species	**Triturus carnifex**
Standard form population	C
Standard form isolation	B
Standard form state of conservation	B
Standard form global evaluation	B

Description of changes	Elimination from SDF
Justification	Genuine scientific error

The inclusion in the Standard Formulary of Triturus carnifex is from 1995 and maintained in the 2013 update with The following values:
“population at site": p = permanent;
“abundance category": p = present;
“data quality": DD = data deficient.

The form originally indicated that the species is present and permanent, but with DD (Data Deficient) indicating that no scientific studies were ever available to support this presence.

In fact, it is believed that when the first standard form was written the conservation status “good” and the overall rating “good” had been expressed in a completely arbitrary way (true objective error), as the rating was not supported by clear scientific data on population size.

Currently, confirming the above, the update of the distribution of amphibians at the regional scale published in the Amphibians and Reptiles Atlas (Di Tizio, Carafa, Cameli, 2024) also does not report the presence of the species Triturus carnifex in the kilometric quadrant covering the mountain range of the Monte Salviano SAC (Figure 4), either before 2008 or after.

Reports of the species' presence before 2007, in fact, concern only irrigated canals located outside the Monte Salviano SAC (Ferri, Di Tizio, Pellegrini M., 2007). Surveys conducted in the last 4 years (2020 to 2023) in the small surface water body (volubro) present within the SAC, the only site with conditions potentially compatible with the presence of the species, have not detected the presence of individuals of Triturus carnifex. This volube is used for watering animals and has no water tributaries, so it is prone to dryness in the summer season. Therefore, it is believed that the species cannot be found at this site if it has never been in the past.

It should also be noted that in the V ISPRA report currently being drafted, the Fauna Panel indicated, for the 10x10km cell in which the Monte Salviano SAC falls, the following note: "SCI Presence. Presence not reconfirmed. Retain data from III report as a precaution [SHI]." This note confirms the absence of data to support the presence of the species.

In light of the above, it is proposed that the species be removed from the standard form.

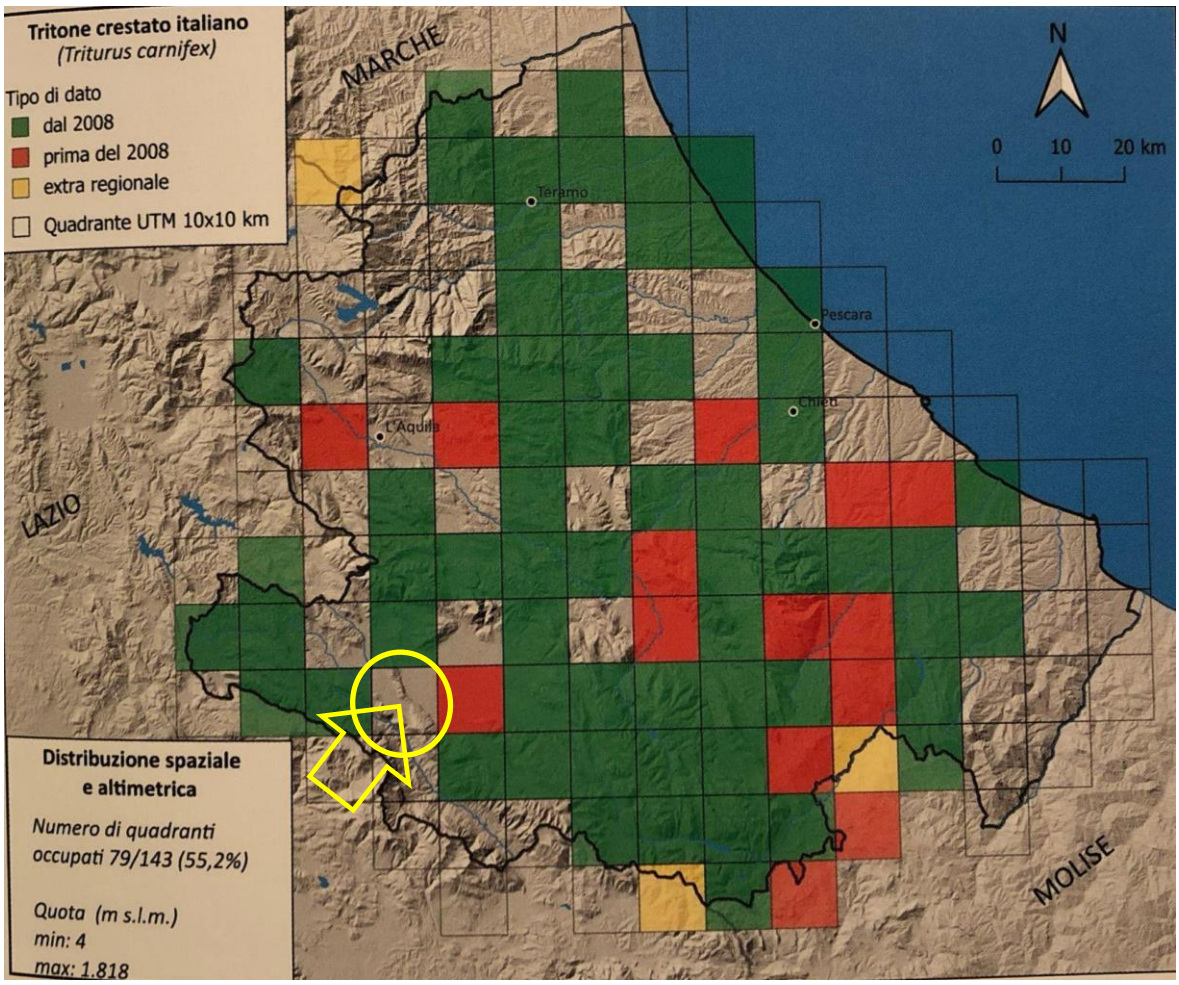

Figure 4. Distribution updated to 2023 of Triturus cristatus in Abruzzo (Di Tizio, Carafa, Cameli, 2024). The yellow circle and arrow indicate the location of the Monte Salviano SAC.

Network consistency for the species

Triturus carnifex

When analyzing the change in the overall conservation status and assessment of this species in the context of network coherence, the impacts are not particularly significant: the species Triturus carnifex occurs nationwide in 616 SACs; in 3 SACs the population is assessed as A, in 9 as B, in 496 as C, and in 110 as D.
The species reported for the "Monte Salviano" SAC was listed with population type C and conservation type B.
This site represents 0.20 percent of the total number of Type C population sites and 0.16 percent of the total number of SACs where the species occurs.
Considering only the Mediterranean region, this site represents 0.53% of the Type C population sites.
It is believed that the elimination does not affect the coherence of the network for the species.

Bibliography

The management plans can be consulted at the following link:

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