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Using Biodiversity Action Plans to Manage High Conservation Value Areas in Portuguese Natura 2000 Network Areas.

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Abstract:
A Biodiversity Action Plan (BAP) is a management tool that a) evaluates and monitors wildlife and habitats with regional/local interest, with conservation status (IUCN Red Lists) and included in EU 'Habitats' Directives, b) evaluates species with importance in crop protection and soil conservation; c) targets bioindicator groups to assess and monitor the performance of conservationist practices and c) targets both crop areas and surroundings, including woodlands, wetlands set-aside areas, inter alia, for proper habitat management. The BAP focus strongly on the concept of High Conservation Value Areas (HCVA). HCVA are landscape level units with important natural values, i.e., habitats, fauna, flora, and frequently occur in man managed landscapes. The first BAP began in March 2006 and by now AmBioDiv manages 15 BAP, with high incidence on Natura 2000 Network areas. The BAP main goal is to establish a Biodiversity baseline which will allow the definition of management guidelines towards Biodiversity no net loss or net positive gain. The plant community assessment method was based on phytosociological data (Braun-Blanquet, 1979). The most relevant habitats were: Oak Montado forests, mixed woodlands, riparian stream banks, scrublands, meadows, aquatic communities. Some of the highlights regarding HCVA and plant communities that correspond to Biodiversity Hotspots are: Malcata HCVA - *Quercus pyrenaica* oaklands with a rich understory including endemisms such as Broteroi Peony (*Paeonia broteroi*) and Plantain Leopardbane (*Doronicum plantagineum*), with Strawberry-tree (*Arbutus unedo*) and Butcher's broom (*Ruscus aculeatus*) also present (*Arbuto unedonis-Quercetum pyrenaicae*); Valongo, Alvao/Marao HCVA's - Portuguese endemism *Murbeckiella sousae* was found on the understory of Common Alder (*Alnus glutinosa*) woodlands, (*Osmundo-Alnion*); Nisa and Sao Mamede HCVA - most significant orchid meadows of *Serapias cordigera* and *Serapias lingua*, (Festuco-Brometea), and scrubland (*Phillyreo angustifoliae-Arbutetum unedonis*); Tejo Internacional HCVA - Holm oaklands (*Pyro bourgaeanae-Quercetum rotundifoliae*), rocky hillside communities (*Selaginello denticulatae-Anogrammetum leptphyllae*) and Cape Myrtle scrublands (*Pyro bourgaeanae-Flueggeetum tinctoriae*); Monchique HCVA - Common Rhododendron (*Osmundo-Campanuletum primulifoliae*) and the Oleander (*Rubio ulmifolii-Nerietum oleandri*) were present only for some small areas.

Keywords: Biodiversity Action Plan, High Conservation Value Areas, Mediterranean Hotspots, Plant Ecology.

Abstract
Utilizzo di piani d'azione sulla biodiversità per la gestione di zone ad elevato valore di conservazione nelle aree Natura portoghesi
Un piano d'azione per la biodiversità (BAP) è uno strumento di gestione che a) valuta e controlla la fauna selvatica e gli habitat con le autorità regionali / interesse locale, con lo stato di conservazione (IUCN Liste Rosse) e inclusi nelle direttiva Habitat europea, b) valuta le specie con riferimento all'importanza della protezione colture e della conservazione del suolo; c) individua i gruppi di bioindicatori per valutare e monitorare l'efficacia delle prassi conservazionista e c) gli obiettivi di entrambi i settori delle colture e dintorni, inclusi boschi, zone umide, superfici dismesse dalla coltura, tra l'altro, per una gestione adeguata degli habitat. Il BAP si concentra fortemente sul concetto di Alto Valore delle Aree Protette (HCVA). HCVA sono unità di paesaggio con importanti valori naturali, vale a dire, gli habitat, la fauna, la flora, e si sono di frequente in paesaggi gestiti dall'uomo. Il primo BAP ha avuto inizio nel marzo 2006 e ormai AmBioDiv gestisce 15 BAP, con elevata incidenza su aree della rete Natura 2000. L'obiettivo principale è quello di BAP stabilire una base sulla biodiversità che consentirà la definizione delle linee guida per la gestione della biodiversità senza perdita netta o di guadagno netto positivo Il metodo di valutazione della comunità vegetale si è basata su dati fitosociologici (Braun-Blanquet, 1979). Gli habitat più rilevanti sono: foreste a Rovere Montado, boschi misti, cespugli ripariali, boscaglie, prati, le comunità acquatiche. Alcuni dei punti salienti riguardanti HCVA e le comunità vegetali che corrispondono ai punti caldi di biodiversità sono: Malcata HCVA - querceto a *Quercus pyrenaica* con un sottobosco ricco di endemismi tra cui la peonia Broteroi (*Paeonia broteroi*) e Piantaggine Leopardbane (*Doronicum plantagineum*), con corbezzolo (*Arbutus unedo*) e pungitopo (*Ruscus aculeatus*), presente anche (*Arbuto unedonis-Quercetum pyrenaicae*); Valongo, Alvão / Marao HCVA's - endemismo portoghese *Murbeckiella sousae* è stato trovato nel sottobosco del bosco a comune Ontano (*Alnus glutinosa*), (*Osmundo-Alnion*); Nisa e Sao Mamede HCVA - prati di orchidee più significativi della *Serapias cordigera* e *Serapias lingua*, (*Festuco-Brometea*) e cespugli (*Phillyreo angustifoliae-Arbutetum unedonis*); Tejo Internacional HCVA - querceto (*Pyro bourgaeanae-Quercetum rotundifoliae*), le comunità di collina rocciosa (*Selaginello denticulatae-Anogrammetum leptphyllae*) e garighe di Capo Mirto (*Pyro bourgaeanae-Flueggeetum tinctoriae*); Monchique HCVA – rododendro comune (*Osmundo-Campanuletum primulifoliae*) e l'oleandro (*Rubio ulmifolii-Nerietum oleandri*), erano presenti solo per alcune aree di piccole dimensioni.

Parole chiave: piano d'azione sulla biodiversità, zone di elevato valore di conservazione, Hotspots Mediterraneo, ecologia vegetale.

Intoduction

A phytosociological characterization of plant communities as well as natural habitats present was conducted within the scope of various Biodiversity Action Plans (BAPs). These BAPs have been put in to practice by the land owners/managers operating in the Natura 2000 areas, namely in Malcata, Valongo, Alvão/Marão, Nisa/Lage da Prata, São Mamede and Monchique Sites of Community Importance (SCIs) as well as in Tejo Internacional, Erges and Pônsul Special Protection Areas (SPAs) (Figure 1).

According to Costa *et. al* (1998), from the biogeographical perspective, the areas studied

belong to two distinct Regions: Mediterranean (Superdistrict Altibeirense, Zezerense, Cacerense, Serrano-Monchiquense and Subsector Oretano) and Eurosiberian (Superdistricts: Miniense-Litoral, Alvão-Marão e Beiraduriense). The phytossociological inventories were taken across permanent and temporary streamlines, rivers and ponds, around meadows and hill slopes.

The following communities were identified:

Malcata's SCI – *Quercus pyrenaica* oaklands belonging to the association: *Arbuto unedonis-Quercetum pyrenaicae*, presenting in their understory the following conservation values: *Paeonia broteri*, *Ruscus aculeatus* and *Doronicum plantagineum*.

Valongo's SCI – Atlantic bogs represented by *Sphagnum squarrosum* communities displayed in a mosaic composition alongside with wet heathland belonging to the association *Cirsio filipenduli-Ericetum ciliaris*.

Alvão/Marão's SCI - Alnus glutinosa woodlands belonging to the *Osmundo-Alnion* Alliance showing on its understory the Portuguese endemism, *Murbeckiella sousae*.

Nisa/Lage da Prata's and São Mamede's SCI – Scrubland belonging to the association *Phillyreo angustifoliae-Arbutetum unedonis*, as well as orchid rich meadows, with *Serapias lingua* and *Serapias cordigera*, characteristically of the *FESTUCO-BROMETEA* class.

Monchique's SCI – Common Rhododendron belonging to the association *Osmundo-Campanuletum primulifoliae*, as well as Oleander formation from *Rubio ulmifolii-Nerietum oleandri*.

Tejo Internacional, Erges e Pônsul's SPA – Holm oaklands belonging to *Pyro bourgaeanae-Quercetum rotundifoliae* which present communities of *Selaginella denticulata* from *Selaginello denticulatae-Anogrammetum leptphyllae*. Also, in parts of temporary watercourses, *Flueggea tinctoria* scrublands were identified, belonging to *Pyro bourgaeanae-Flueggeetum tinctoriae,* a community that has been decreasing in terms of distribution area.

Materials and methods

The evaluation of the natural values present was carried out through the, applying the phytosociological methodology of the Zurich_Montpellier School, initially proposed by Braun-Blanquet (1966), Rivas-Martínez (1976) and later modified by Géhu & Rivas-Martínez (1982).

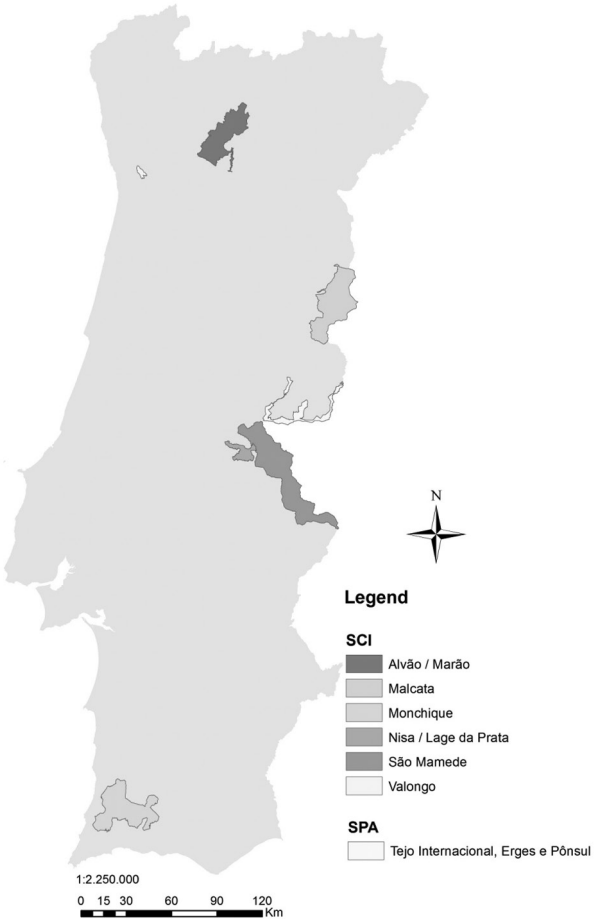

Fig. 1- Natura 2000 areas sampled.

The plants were identified according to (1986-1997), Coutinho (1939), Franco (1971, 1984), Franco & Afonso (1994, 1998, 2003) and Zarco (1990).

Results

Malcata's SCI

Arbuto unedonis-Quercetum pyrenaicae (Rivas Goday *in* Rivas Goday, Esteve, Galiano, Rigual & Rivas-Martínez 1960) Rivas-Martínez 1987

Meso-mediterranean Pyrenean Oak communities developing in silica-rich soils were identified in humid slopes along the Meimoa streamside. The canopy were tightly closed, creating shadow and moist conditions that favored the rich understory, exhibiting species with high conservation value: *Ruscus aculeatus*, *Doronicum plantagineum* and *Paeonia broteri*.

Synthetic table of the *Arbuto unedonis-Quercetum pyrenaicae* (Rivas Goday in Rivas Goday, Esteve, Galiano, Rigual & Rivas-Martínez 1960) Rivas-Martínez 1987, at Meimoa stream, slopes with

moderate inclination, NE, 100 m². Characteristics: *Quercus pyrenaica* 2, *Arbutus unedo* 2, *Genista falcata* 1, *Hedera helix* 1; Companions: *Erica australis* 2, *Hyacinthoides hispanica* 1, *Lithodora prostrata* 1, *Lonicera etrusca* 1, *Pyrus bourgeana* 1, *Phillyrea angustifolia* 1, *Crataegus monogyna* 1, *Pinus pinaster* 1, *Lavandula pedunculata* 1, *Cistus salvifolius* 1, *Daphne gnidium* 1, *Cistus ladanifer* 1, *Doronicum plantagineum* 1, *Paeonia broteri* 1, *Thapsia villosa* 1, *Quercus coccifera* 1, *Ruscus aculeatus* +, *Ranunculus tripartitus* +, *Rubia peregrina* +.

Valongo's SCI

Sphagnum squarrosum communities

Mesotrofic and hidrofilic communities that characterize the bogs present in this Natura 2000 SCI. These communities are quite demanding in terms of humidity, occurring in shadowy and humid habitats, mainly with Northern exposure and always in the presence of water. The communities, mainly constituted by a single species form dense patches, identified next to a spring, the following were present: *Sphagnum squarrosum* 4, *Wahlenbergia hederacea* 1 and *Anagallis tenella* + (near Quinta das Banjas, N, 147 m, 5 m²).

Cirsio filipenduli-Ericetum ciliaris Br.-Bl., P. Silva & Rozeira 1965

The (meso-) hidrofilic atlantic Erica wet heath communities has a thermophile character, developing around forest clearings, were the last described community is present. These communities are dominated by *Erica ciliaris*, installed in wetland areas with deep soils.

Synthetic table of the *Cirsio filipenduli-Ericetum ciliaris* Br.-Bl., P. Silva & Rozeira 1965, at ribeira das Banjas, slopes with moderate inclination, N, 50 m². Characteristics: *Erica ciliaris* 3, *Calluna vulgaris* 1, *Lithodora prostrata* 1, *Cirsium filipendulum* 1; Companions: *Ulex* sp. 1, *Agrostis trunculata* 1, *Juncus acutus* 1, *Digitalis purpurea* 1, *Frangula alnus* 1, *Carex* sp. 1, *Osmunda regalis* 1, *Brachypodium pinnatum* 1, *Hyparrhenia hirta* 1, *Rubus* sp. 1, *Blechnum spicant* 1, *Senecio vulgaris* +, *Ranunculus repens* +, *Viola* sp. +.

Alvão/Marão´s SCI

Osmundo-Alnion (Br.-Bl., P. Silva & Rozeira 1956) Dierschke & Rivas-Martínez in Rivas-Martínez 1975 (*Alnus glutinosa* woodlands)

Alnus glutinosa woodlands that constitute the streamside corridor vegetation bank (Santa Eulália's stream). This community could only be integrated in the *Osmundo-Alnion* alliance, nevertheless further phytossociological inventories were needed in order to identify the underlying association. The referred community constitutes an oligotrofic Mediterranean-Ibero-Atlantic riverside woodland. In its understory the Portuguese endemism *Murbeckiella sousae* was identified, being a priority species for conservation (Sequeira, 2004). This endemism was only assigned, according to the ICNB (Portuguese Institute for the Nature and Biodiversity Conservation) species factsheet, to rocky slopes, occurring in rock crevices, which is not the present case.

Synthetic table of the Alnus glutinosa woodlands (Osmundo-Alnion (Br.-Bl., P. Silva & Rozeira 1956) Dierschke & Rivas-Martínez *in* Rivas-Martínez 1975) at Santa Eulália's stream, slopes with moderate inclination, N, 95 m²: *Alnus glutinosa* 3, *Fraxinus angustifolia* 2, *Osmunda regalis* 2, *Salix atrocinerea* 1, *Solanum nigrum* 1. Companions: *Hedera helix* 2, *Crataegus monogyna* 2, *Aquilegia vulgaris* subsp. *dichroa* 1, *Quercus pyrenaica* 1, *Lamium maculatum* 1, *Myosotis* sp. 1, *Fragaria vesca* 1, *Ranunculus* sp. 1, *Erica arborea* 1, *Murbeckiella sousae* 1, *Chelidonium majus* 1, *Silene vulgaris* +, *Scilla monophyllus* +, *Reseda* sp. +.

Nisa/Lage da Prata and São Mamede's SCI

Phillyreo angustifoliae-Arbutetum unedonis Rivas Goday & Galiano *in* Rivas Goday, Borja, Esteve, Galiano, Rigual & Rivas-Martínez 1960

This association refers to silica rich, thermo-meso-mediterranean, sub-humid to hyper-humid Strawberry-tree mixed woodland/scrubland, occurring in the west Mediterranean. The tree composition is mainly Strawberry-tree (*Arbutus unedo*) and False Olive (*Phillyrea angustifolia*), two species that comprise the edges of Oak woods. The Holm Oaks outnumber the Cork Oaks. In the past this area must have been a true Cork Oakland, but due to a recent fire, this phase of the succession hasn't developed yet, and in face of the Holm Oak dominance there's a greater probability that a Holm Oakland develops first. This fact is normally referred to as "secondary succession".

Synthetic table of the *Phillyreo angustifoliae-Arbutetum unedonis* Rivas Goday & Galiano *in* Rivas Goday, Borja, Esteve, Galiano, Rigual & Rivas-Martínez 1960, at Porto das Lagens, slopes with low inclination, S, 80 m². Characteristics: *Arbutus unedo* 3, *Phillyrea angustifolia* 1, *Quercus coccifera* 1, *Daphne gnidium* 1, *Pistacia terebinthus* 1, *Pistacia lentiscus* 1, *Lonicera implexa* 1, *Myrtus communis*

+; Companions: *Lavandula stoechas* subsp. *luisieri* 2, *Cistus albidus* 2, *Cistus ladanifer* 2, *Dactyllis glomerata* 1, *Rubus ulmifolius* 1, *Erica* sp. 1, *Cistus populifolius* 1, *Cistus crispus* 1, *Cistus salvifolius* 1, *Viburnum tinus* 1, *Crataegus monogyna* 1, *Quercus rotundifolia* 1, *Thapsia villosa* 1, *Cytisus striatus* 1, *Arrhenatherum album* 1, *Asphodelus ramosus* 1, *Aristolochia paucinervis* +, *Urginea maritima* +.

Festuco-brometea Br.-Bl. & Tüxen *ex* Br.-Bl. 1949 (*Serapias lingua* and *Serapias cordigera* communities)

In this habitat two species of orchids were found, namely *Serapias lingua* and *S. cordigera*). Each metapopulation reached over 50 individuals, making this a priority conservation habitat. This is a hemicriptofit, meso-xerofitic meadow that grows in shallow soils rich in bases. The referred meadow occurs in an open humid area compartmented between rock walls, forming populations with a very significant number of individuals, due to an efficient vegetative reproduction. At this point it is important to reinforce the importance of this habitat for conservation, being a priority (as listed in the Council Directive 92/43/EEC) if one of the following criteria is observed: rich orchid composition (> 4 species); presence of an important population (> 20 individuals) of one or more orchid species. In the study area the second criteria was observed.

The inventories presented the following results: *Serapias cordigera* 2, *Serapias lingua* 1, *Trifolium angustifolium* 1, *Jasione montana* +, *Briza minor* 1, *Gladiolus illyricus* 1, *Centaurium erythraea* 1 (near Couto da Cabeça, S, 235 m, 6 m^2).

Monchique's SCI

Osmundo-Campanuletum primulifoliae Malato-Beliz 1982

This association was found in shrubby edges dominated by *Rhododendron ponticum* subsp. *baeticum*, defined by Malato-Beliz (1982) as streamside gallery communities in Serra de Monchique. Once a very common species throughout Europe, nowadays (namely due to the last glaciations) its distribution area is much reduced. The association has a sub-Atlantic character and occurs along watercourses and narrow valleys.

Synthetic table of the *Osmundo-Campanuletum primulifoliae* Malato-Beliz 1982, at Medronheira valley, slopes with low inclination, NW, 70 m^2. Characteristics: *Viburnum tinus* 2, *Osmunda regalis* 1, *Smilax aspera* 1, *Rhododendron ponticum* subsp. *baeticum* 1, *Rubia peregrina* 1; Companions: *Cistus populifolius* 2, *Rubus ulmifolius* 2, *Cistus ladanifer* 2, *Arbutus unedo* 2, *Frangula alnus* 1, *Tamus communis* 1, *Prunella vulgaris* 1, *Ranunculus ficaria* subsp. *ficaria* 1, *Pteridium aquilinum* 1, *Iris pseudacorus* 1, *Alisma plantago-aquatica* 1, *Erica arborea* 1, *Piptatherum miliaceum* +, *Ranunculus bulbosus* +.

Rubio ulmifolii-Nerietum oleandri O. Bolòs 1965

Dense communities dominated by Oleanders (*Nerium oleander*), a shrubby species with persistent foliage common in dry, hot regions, occurring in areas were the pre-existent Common Alder woodland was degradated, in a natural or artificial way. These Oleander dominated communities occupy rivers and temporary streams in regions of thermo-meso-Mediterranean climate. Synthetic table of the *Rubio ulmifolii-Nerietum oleandri* O. Bolòs 1965, near Carvalho II, slopes with low inclination, E, 70 m^2. Characteristics: *Nerium oleander* 3, Companions: *Rubus ulmifolius* 2, *Salix salviifolia* 1, *Scirpoides holoschoenus* 1, *Pteridium aquilinum* 1, *Juncus effusus* 1, *Dactylis glomerata* 1.

Tejo Internacional, Erges and Pônsul's SPA

Pyro bourgaeanae-Quercetum rotundifoliae Rivas-Martínez 1987

This sandy meso-Mediterranean, dry to sub-humid Holm Oakland occur in the Luso-Extremadurense Province. They were identified in slopes with high inclination comprising the margin banks of Alfrivídia stream and Erges river. Both areas possess a good conservation status, were big enclosed vegetation patches comprised of *Quercus rotundifolia* with *Pyrus bourgaeana* in the understory could be found.

Synthetic table of the *Pyro bourgaeanae-Quercetum rotundifoliae* Rivas-Martínez 1987, at slope of rio Erges, slopes with high inclination, NW, 100 m^2. Characteristics: *Quercus rotundifolia* 3, *Pyrus bourgeana* 1, *Arisarum vulgare* +, *Daphne gnidium* +, *Olea europaea subsp. sylvestris* +, *Phillyrea angustifolia* 1; Companions: *Lavandula pedunculata* 1, *Retama sphaerocarpa* 1, *Cistus albidus* 1, *Cistus ladanifer* 1, *Cytisus striatus* 1, *Thymus* sp. 1, *Crataegus monogyna* +, *Dactylis glomerata* +, *Sanguisorba verrucosa* +, *Ballota hirsuta* 1.

Selaginello denticulatae-Anogrammetum leptphyllae R. Molinier 1937

This (almost) mono-specific community is characterized by the presence of casmofitic species such as *Selaginella denticulata*. This is a typical Mediterranean community, well developed in the shadowy bank of Alfrivídia stream, naturally preferring

moist unexposed rocks.

Synthetic table of the *Selaginello denticulatae-Anogrammetum leptphyllae* R. Molinier 1937, at slope of rio Erges, NW, 1 m². Characteristics: *Selaginella denticulata* 2, *Asplenium trichomanes* 1 and *Umbilicus rupestris* +.

Pyro bourgaeanae-Flueggeetum tinctoriae Rivas Goday *nom. mut. et nom. inv. propos.*

Thermo-meso-Mediterranean, silica prone South-Iberian communities occurring in rivers, streams and other watercourses that dry out during summer months (Pereira, 2004). It refers to a *Flueggea tinctoria* scrubland present in some parts of Alfrivídia stream margins. The presence of this community is rather important due to the ecological characteristics essential to its existence (creeks and brooks that run dry during summer and overflow during winter) as well as the ongoing regression state that the habitat *per se* has been under, all over the country. Habitat disturbance and , specimens collecting , are the main reason for this regression.

Synthetic table of the *Pyro bourgaeanae-Flueggeetum tinctoriae* Rivas Goday *nom. mut. et nom. inv. propos.*, at Aravil brook, slopes with low inclination, SE, 50 m². Characteristics: *Flueggea tinctoria* 3, *Salix atrocinerea* 1; Companions: *Lythrum salicaria* 1, *Schoenoplectus lacustris* 1, *Rubus ulmifolius* 1, *Hyparrhenia hirta* +, *Teesdalia nudicaulis* +, *Crataegus monogyna* 1, *Rosa* sp. +, *Lysimachia vulgaris* +.

Discussion

Based on a 3 year fieldwork in forest management projects the following stand out:

- The forest management models must take into account the protection and management of conservation areas and species with high conservation status;
- The Biodiversity Action Plans (BAPs) are, to some extent, a valid tool for land owners / managers, by facilitating the identification and mapping of High Conservation Value Areas and important plant communities/assemblages that include rare, endemic, localized, threatened and/ or endangered plant species, thus allowing the definition of specific management actions for each conservation area/value identified;
- The results presented in this paper represent 3 years of fieldwork. Only the data regarding High Conservation Value Areas (HCVA) is shown, regarding the 6 SCIs and one SPA of Natura 2000, with 8 species with high conservation status and 11 habitats listed in the Council Directive 92/43/ EEC (Table I).

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Studied area	**Council Directive 92/43/EEC habitat code**	**Phytosociological correspondence**	**RELTE species**	**RELTE species status**
Malcata's SCI	9230pt2 -Cantabrian *Quercus pyrenaica* forests	*Arbuto unedonis-Quercetum pyrenaicae*	*Doronicum plantagineum*	European End.; Annex V, b) from 92/43/EEC
			Ruscus aculeatus	Annex V, b) from 92/43/EEC
			Paeonia broteri	European End.
Valongo's SCI	7140pt2 – Atlantic bogs	*Sphagnum squarrosum* communities	*Sphagnum squarrosum*	Annex V, b) from 92/43/EEC
	4020 – Temperate Atlantic wet heaths with *Erica ciliaris* and *Erica tetralix*	*Cirsio filipenduli-Ericetum ciliaris* association	N/A	-
Alvão/Marão's SCI	91E0* – Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior*	*Osmundo-Alnion* alliance	*Murbeckiella sousae*	Portuguese End.; Annex IV, b) from 92/43/EEC and Annex I of the Bonn Convention
Nisa/Lage da Prata and São Mamede's SCI	5330pt3 – Strawberry- tree mixed woodlands	*Phillyreo angustifoliae-Arbutetum unedonis*	N/A	-
	6210 – Semi-natural dry grasslands and scrubland facies on calcareous substrates	*FESTUCO_BROMETEA* class	*Serapias cordigera*	CITES Convention
			Serapias lingua	
Monchique's SCI	92B0 – Riparian formations on intermittent Mediterranean water courses with *Rhododendron ponticum*, *Salix* and others	*Osmundo-Campanuletum primulifoliae*	*Rhododrendon ponticum* subsp. *baeticum*	Rare
	92D0pt1 – Southern riparian galleries and thickets with typical species *Tamarix africana*, *Tamarix mascatensis*, *Tamarix gallica* and/or *Nerium oleander*	*Rubio ulmifolii-Nerietum oleandri*	N/A	-
Tejo Internacional, Erges and Pônsul's SPA	9340 – *Quercus ilex* and *Quercus rotundifolia* forests	*Pyro bourgaeanae-Quercetum rotundifoliae*	N/A	-
	8220pt3 – Siliceous rocky slopes with chasmophytic vegetation	*Selaginello denticulatae-Anogrammetum leptphyllae*	N/A	-
	92D0pt3 – Southern riparian galleries and thickets of *Flueggea tinctoria* associated with dried river banks flooded in Winter	*Pyro bourgaeanae-Flueggeetum tinctoriae*	N/A	-

Tab. 1 - Council Directive 92/43/EEC habitat characterization, regarding the phytosociological associations, RELTE (Rare, Endemic, Localized, Threatened or Endangered) plant species and its respective status, for each SCI/SPA of Natura 2000.

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