

The Nature 2000 Network in Italy

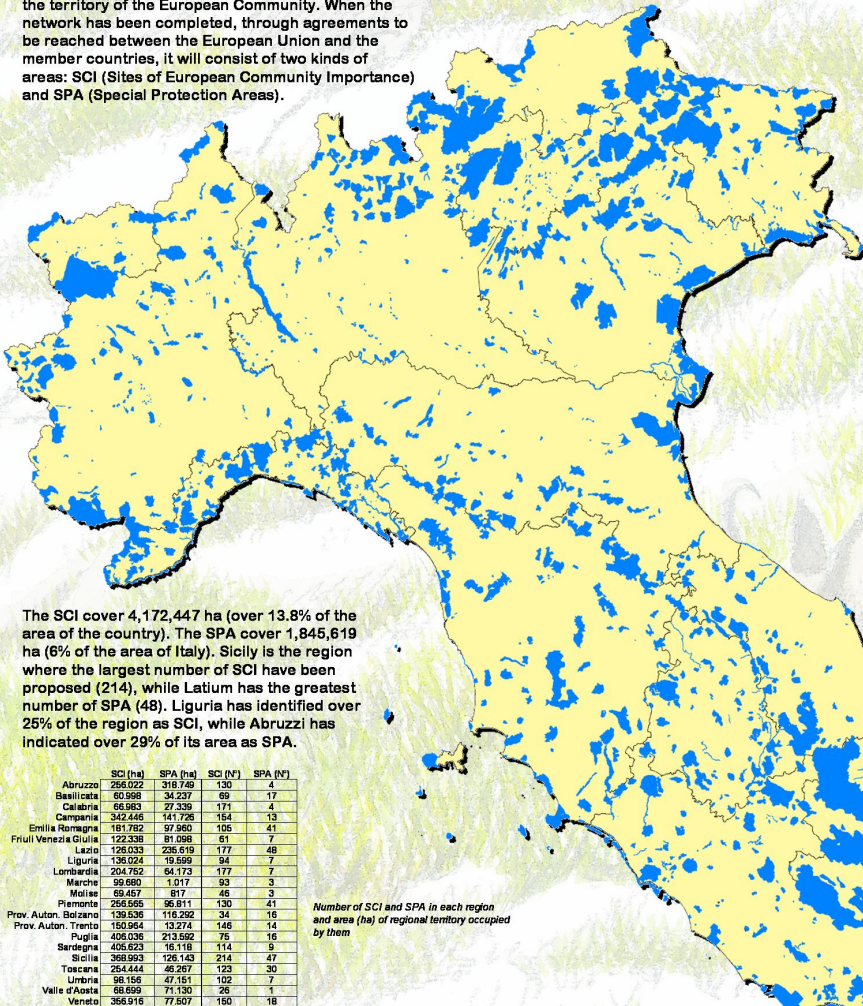


Luigi Boitani ¹, Alessandra Falcucci ^{2,1}, Luigi Maiorano ^{2,1}, Alessandro Montemaggiore ³

¹ Department of Animal and Human Biology - University of Rome "La Sapienza"
² College of Natural Resources, Dept. of Fish and Wildlife Resources - University of Idaho, Moscow (USA)
³ Institute of Applied Ecology - Via L. Spallanzani 32, 00161 Roma

Email: l.boitani@pan.bio.uniroma1.it

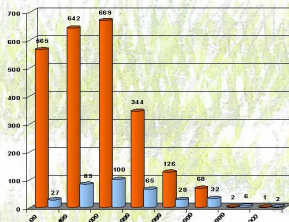
Nature 2000 Network, as described in Directive 92/43/CEE issued in 1992, is intended to be a series of areas with the function of protecting biodiversity in the territory of the European Community. When the network has been completed, through agreements to be reached between the European Union and the member countries, it will consist of two kinds of areas: SCI (Sites of European Community Importance) and SPA (Special Protection Areas).



The SCI cover 4,172,447 ha (over 13.8% of the area of the country). The SPA cover 1,845,619 ha (6% of the area of Italy). Sicily is the region where the largest number of SCI have been proposed (214), while Latium has the greatest number of SPA (48). Liguria has identified over 25% of the region as SCI, while Abruzzi has indicated over 29% of its area as SPA.

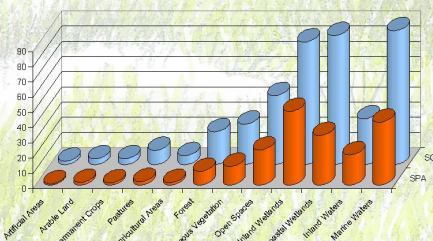
	SCI (ha)	SPA (ha)	SCI (N°)	SPA (N°)
Abruzzo	256,022	318,749	130	4
Basilicata	60,998	34,227	69	17
Calabria	66,993	27,339	171	4
Campania	342,446	141,726	154	13
Emilia Romagna	161,762	97,960	105	41
Friuli Venezia Giulia	122,338	31,958	61	7
Lazio	128,033	236,619	177	48
Liguria	136,024	19,599	94	7
Lombardia	204,762	64,173	177	7
Marche	99,660	1,017	93	3
Molise	69,457	817	46	3
Piemonte	254,666	96,811	130	41
Prov. Auton. Bolzano	139,536	116,292	34	16
Prov. Auton. Trento	150,964	13,274	148	14
Puglia	408,036	213,562	75	16
Sardegna	406,623	16,118	114	9
Sicilia	368,993	126,143	214	47
Toscana	254,444	49,267	123	30
Umbria	98,156	47,151	102	7
Valle d'Aosta	68,699	71,130	26	1
Veneto	366,916	77,507	150	18

Number of SCI and SPA in each region and area (ha) of regional territory occupied by them



Number of SCI (in orange) and SPA (in blue) in Italy by classes of area (ha)

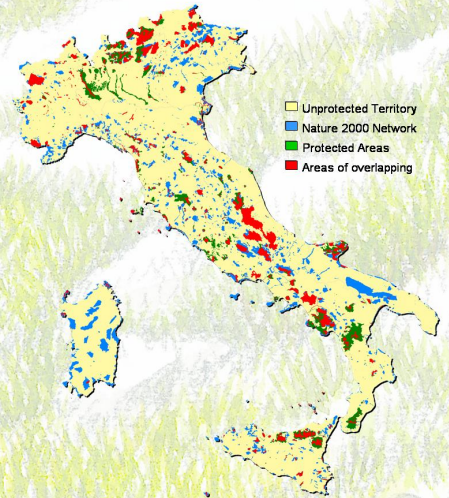
The SCI have a mean size of 1,789 ha (median = 500 ha). Only one site has an area of over 100,000 ha, while most of them (65%) cover an area of less than 1,000 ha and 27% less than 100 ha. The SPA have a mean area of 5,381 ha (median = 1,138 ha). The largest SPA covers an area of over 100,000 ha, while the smallest covers just over 4 ha. For both SCI and SPA, the largest area covered is that of the Murgia Alta district in Puglia.



Percentage of the various CORINE Land Cover categories in the SCI and SPA.

The environmental and physiognomic characterization of the SCI and SPA shows that for both of them the preferred CORINE Land Cover classes are "Wetlands", "Forest", "Shrub and/or herbaceous vegetation", "Open Spaces", "Inland Wetlands" and "Marine Waters", whereas the remaining categories are rarely to be found, particularly "Artificial Areas", "Arable Land" and "Permanent Crops".

68 % of the area of the SPA and 41 % of the area of the SCI fall within already existing Protected Areas. 43 % of the area of the Nature 2000 Network overlaps with the area of the already existing Protected Areas Network. The biggest overlap is with respect to Regional Parks (21 % of the area for the SCI and 29 % for the SPA) and to National Parks (15 % of the area for the SCI and 35 % for the SPA).



Legend:
 □ Unprotected Territory
 ■ Nature 2000 Network
 ■ Protected Areas
 ■ Areas of overlapping

There is also considerable overlapping between SCI and SPA, involving a substantial portion of the area covered by the SCI (33 %) and most of the area covered by the SPA (75 %).

Areas of overlapping between Nature 2000 Network and Protected Areas.

	National Parks	Regional Parks	National Reserves	Regional Reserves	Other Prot. Areas	SCI	SPA
National Parks	0	0	99,980	99	0	640,736	638,230
Regional Parks	0	0	5,647	3,765	557	866,812	535,802
National Reserves	69,980	5,647	0	655	1,195	79,501	86,616
Regional Reserves	99	3,765	655	0	1,009	152,071	49,206
Other Prot. Areas	0	557	1,195	1,009	0	41,985	14,146
SCI	640,736	866,812	79,501	152,071	41,985	0	1,381,213
SPA	638,230	535,802	86,616	49,206	14,146	1,381,213	0

Overlapping between the various types of Protected Areas and Nature 2000 Network. The table shows hectares covered by two types at the same time.

	Italy	SCI	SPA
No Roads	92,72	97,00	97,13
Motorways	0,27	0,06	0,07
Main Roads	0,64	0,21	0,21
Secondary Roads	6,36	2,73	2,59

Percentages of roads in the country, in SCI and in SPA.

In order to determine human disturbance, a comparison was made between the presence of roads in the SCI and SPA and the average for Italy as a whole. In Italy roads cover 7.3 % of the area of the country (2,199,514 ha), while in the Nature 2000 Network this percentage is 2.9 %, indicating that SCI and SPA are less disturbed.