



**12° International Living Lakes Conference**  
**Castiglione del Lago (PG) - 26 settembre 2008**



**Naturalistic importance, cultural identity and sustainable development of Bolsena Lake area (Central Italy, Latium, Viterbo)**



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**The Bolsena Lake Basin is a strong naturalistic value area and many authors stressed the environmental importance of this territory.**



- **AA.VV., 1974 Cartografia delle aree di particolare valore naturalistico della Regione Lazio. Regione Lazio.**
- **S.B.I. 1979. Censimento dei biotopi di rilevante interesse vegetazionale meritevoli di conservazione in Italia.**
- **Olmi M., Zapparoli M., 1992. L'ambiente della Tuscia laziale. Università della Tuscia.**
- **Dinelli A e Guarrera P.M., 1996. Ambiente di particolare interesse naturalistico del Lazio.**
- **E' inserito come area di reperimento nel Piano regionale dei Parchi della Regione Lazio, 1993**

**For these reasons in 1997, in this area were designated 5 “Nature 2000 network” sites (SPA and SCI), referred to Birds and Habitat Directives (79/409/EEC and 92/43/EEC):**

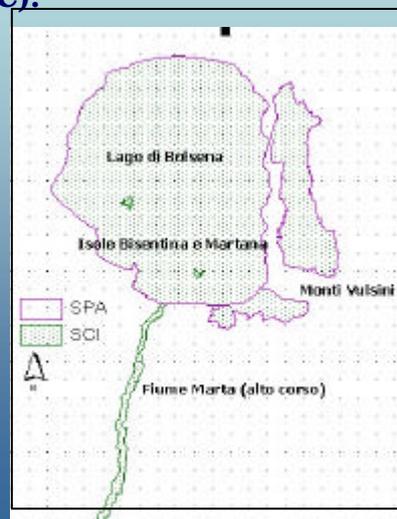
**SCI/SPA Monti Vulsini IT6010008 – 2389,30 hectares**

**SCI Lago di Bolsena IT6010007 – 11.475,30 hectares**

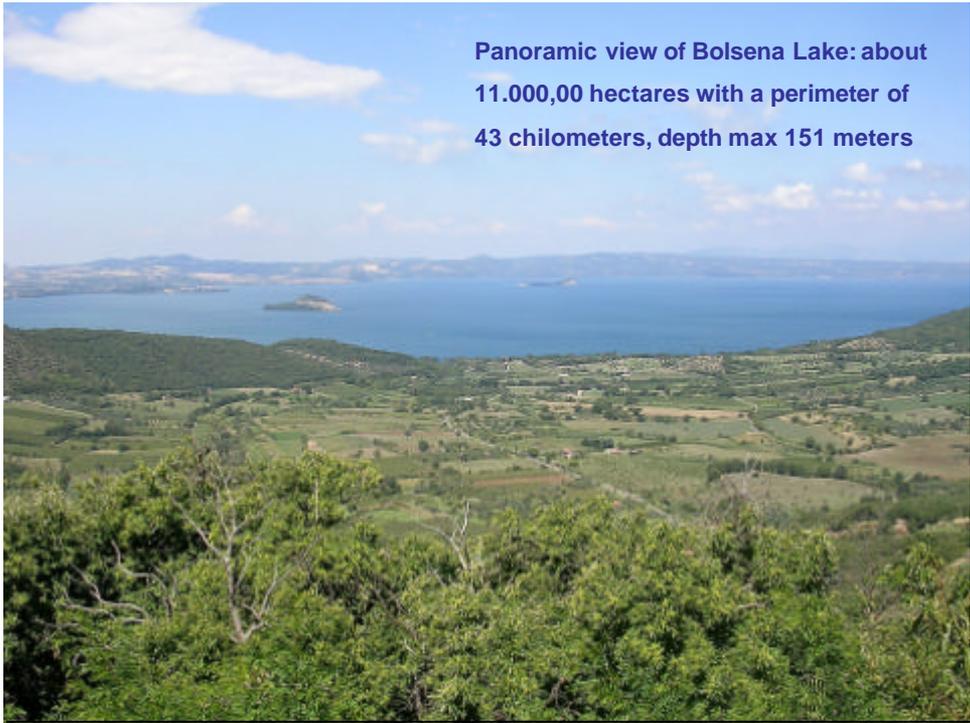
**SCI Isole Bisentina e Martana IT6010041 – 26,1 hectares**

**SCI Fiume Marta (alto corso) IT6010020 – 704,00 hectares**

**SPA Lago di Bolsena-Isole Bisentina e Martana IT6010055 – 11.501,40 hectares**



**Panoramic view of Bolsena Lake: about  
11.000,00 hectares with a perimeter of  
43 kilometers, depth max 151 meters**



**Bisentina Island**

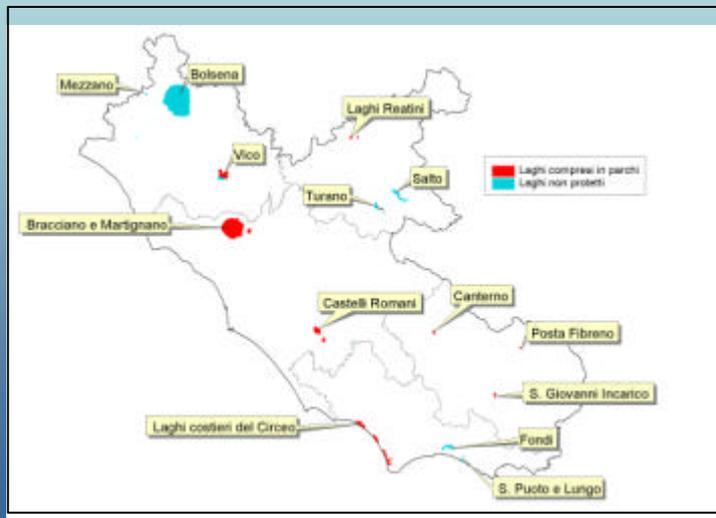




Martana Island



**In spite of this, it's the only non-protected (as natural park and/or natural reserve) lake of medium-big size (about 11.000 ha) of central Italy, and the only one in which the navigation by engine is permitted.**



Recently, “Regione Lazio” entrusted to the Province of Viterbo (with the support of Tuscia University and Lynx Nature and Environment Company), to carry out the “management plan” and the “specific conservation measures” of SPA of “Bolsena Lake and Martana and Bisentina Islands”, to assure a satisfactory conservation status of species and habitat listed in the annexes of “Habitat and Birds Directives” present in the site.

The principal naturalistic values can be synthesized as following.



Important wintering site for many species of waterfowl (about 10.000 specimen counted by IWC method, belonging to 15-18 species, included Black-throated Diver *Gavia arctica* for which the area is of national relevance.



*Fulica atra*



*Aythya fulvicola*



*Aythya ferina*



*Netta rufina*

*Podiceps nigricollis*



*Podiceps cristatus*



**Nesting site for Peregrine Falcon *Falco peregrinus*  
(2 pairs nesting in the islands, one pair on each)**

*Falco peregrinus*



**Herons (3 species: Cattle Egret *Bubulcus ibis*, Little Egret *Egretta garzetta*)**

*Egretta garzetta*



*Bubulcus ibis*



**Night Heron *Nycticorax nycticorax*...**



**... and Cormorant *Phalacrocorax carbo sinensis* nesting mixed colony on Bisentina Island. The only site of central Italy with this specific richness and composition.**

*Phalacrocorax carbo sinensis*



## Nesting sites of Cormorant and Cattle Egret in Italy





**Giannantonio Campano 1400: *Trasimeni descriptio seu de felicitate Trasimeni***

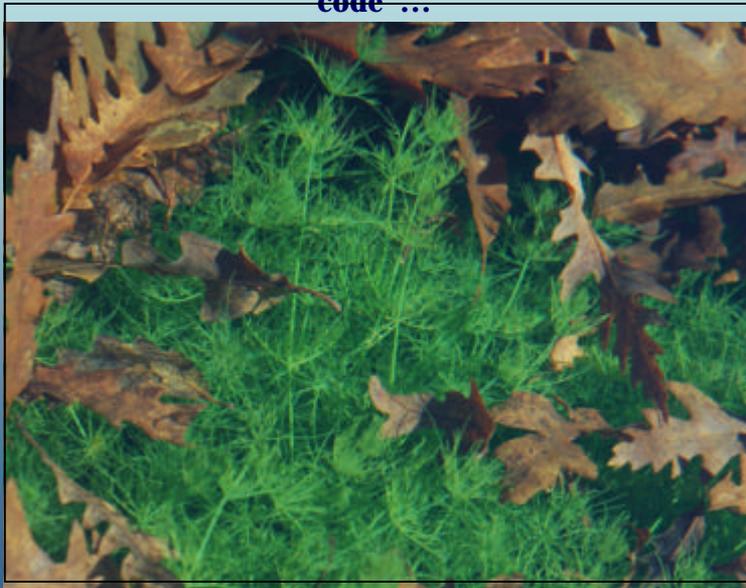
***“Praeterea Volsenam, quo in loco nidos primo vere facere consueverunt, mittunt qui ova rumpant, pullos iam natos interimant et si quos condidere nidos exturbent, vivaria si qua habeant deleant, cavernas intercludant, cetera omina quae ad delendos pertineant mergos diligentissime faciant”***

***Inoltre mandano a Bolsena, nella quale località in primavera sono soliti fare il nido, gente a rompere le uova, a uccidere i pulcini già nati, a guastare i nidi che hanno costruito, a distruggere le eventuali colonie, a chiudere le grotte ed a compiere con la massima diligenza tutte quelle operazioni che servono alla estirpazione degli “smerghi”. - grazie a Francesco Velatta per la segnalazione***

**Nitticora breeding on holm oak in Bisentina Island.**



**Presence of Habitat Directive type of “Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp. 3140 code”...**



... and “Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition* - type vegetation 3150 code”.



## Presence of reedbeds that play out an important ecological role

*Phragmites australis* Reedbeds



- Presence of several rare species of flora as *Didelphis staphysagria* and *Utricularia australis*



**Management plan offered the opportunity to focus about the economic development of the area, with particular reference to touristic and urbanistic development, but with the strong filter of the sustainability concept.**

**Nature, culture and landscape are constitutive properties of the territory and of the cultural identity of a community.**

**Pietre Lanciate Geo site – close to Bolsena town**



**We think that the “cultural identity” of the Bolsena Lake area can be defined by the following principal values:**

- **naturalistic values** (as above defined more “water quality and quantity”);
- **landscape and geological values.**

**The lake is the biggest volcanic lake of Europe and there are several geo-sites**

- **cultural values as archeological and historical relevances.** There are a lot of studies on the area, some of which by local researcher (as e.g. Alessandro Fioravanti and Pietro Tamburini) and a lot of archeological sites and finds in the lake that could be enhanced, with big scientific attention. These archeological evidences go from “Villanoviano” period (IX century B.C.) as that of “Grancaro Village”, to Etruscan period and middle age.

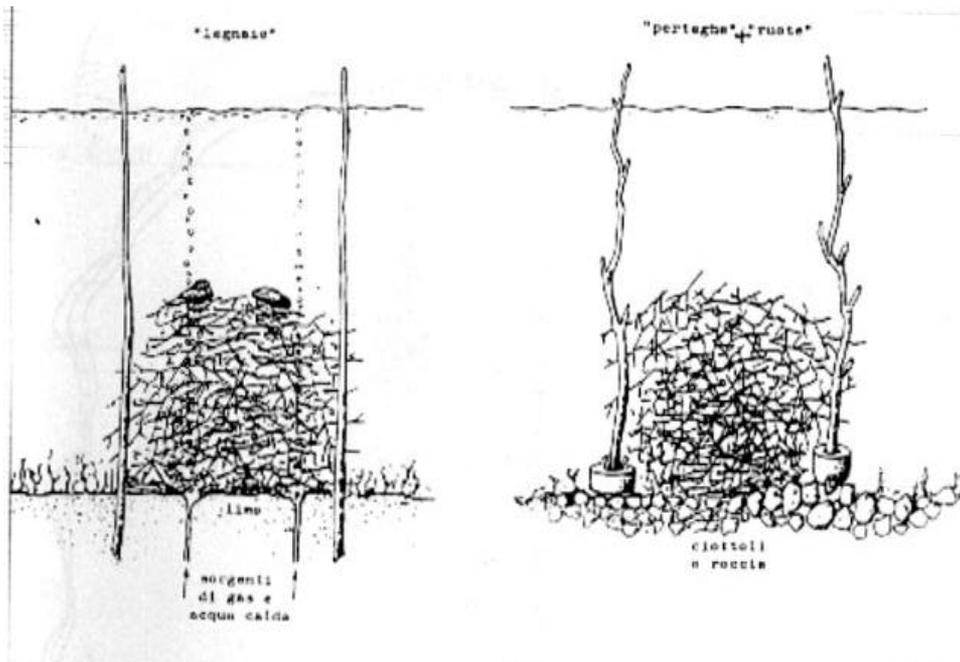


Fig. n. 8 – I pali e le “ruote” negli impianti medievali di pesca.



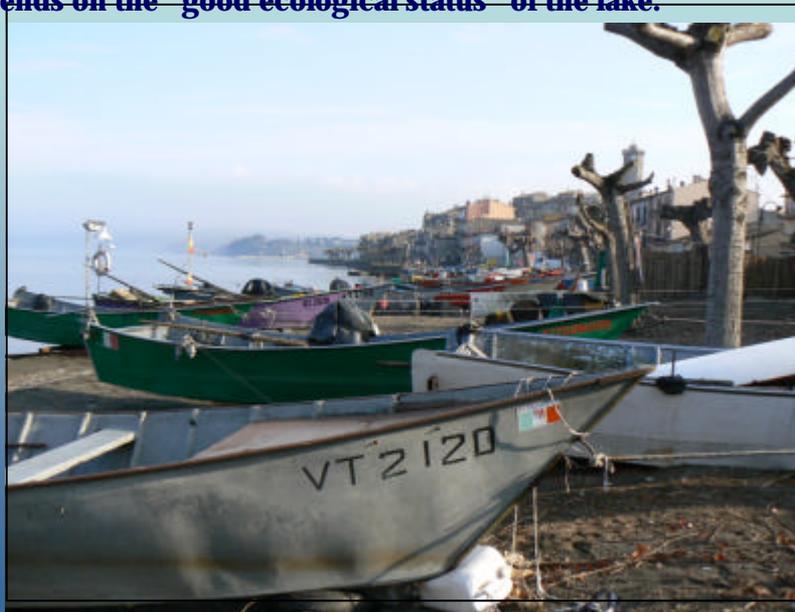
**San Giovanni in Val di Lago an octagonal church (1500 by Pietro Tartarino architect)  
Municipality of S.Lorenzo Nuovo**



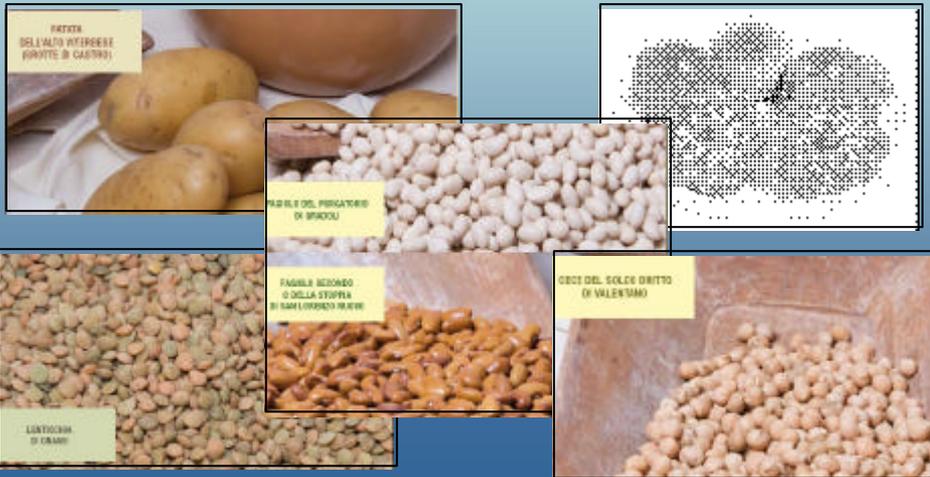
- **human value.** The professional fisheries community (162 professional fishing licence registered among about 70 fishermen job with regularity on the lake). They use a traditional boat, have specific and deep knowledge about the lake, have traditional fishery methods and a characteristic and hard “way of life” that are worth to be well-known.



They are an “endangered of extinction” community that, besides, depends on the “good ecological status” of the lake.



- **agriculture value.** In the lake basin, agriculture activities are well represented: there are some local traditional cultivar of big agronomic and cultural interest that can be suitably enhanced. Organic agriculture is not very spread in the area but it must be stimulate, at least in the immediate proximity of the lake.

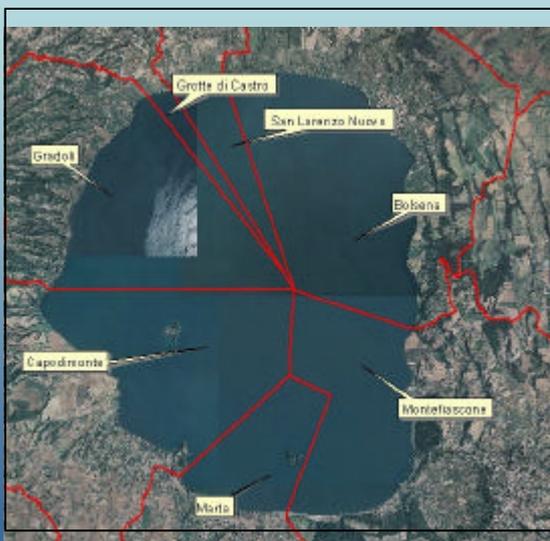


**The “management plan” marks all the threats and problems on the area and identifies the management strategies and the punctual actions needed to overcome them, for an effective sustainable development of this very important site of Nature 2000 network.**

**The main difficult to perform a coherent and unitary policy and management actions, really careful to the “cultural identity” of this territory (so as up defined), is the absence of a unique “management board”, that can be coordinate and direct the economic and urbanistic choices of public (e.g. public administration) and private stakeholders.**



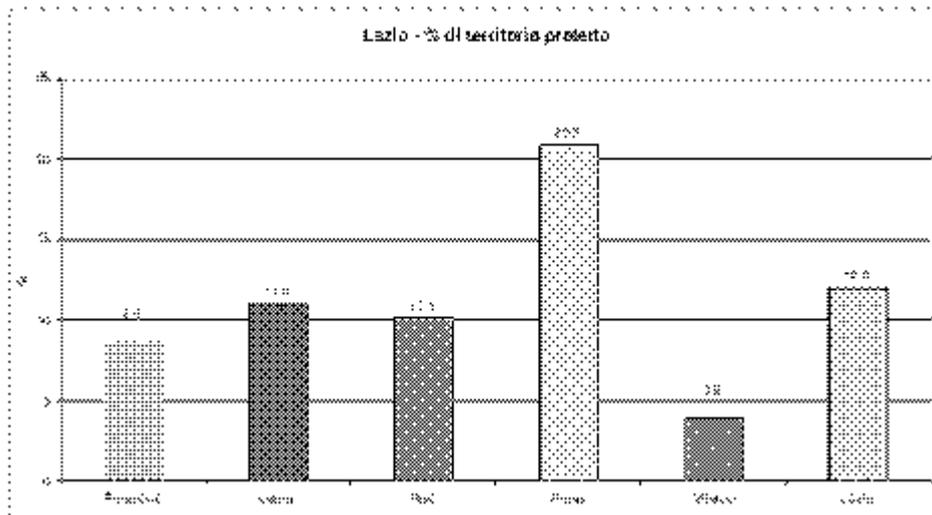
**Around the lake are present 7 Municipalities, and several other Agencies have competences of management on this territory (e.g. Provincia di Viterbo, Basin Authority)**



**wich act, generally, one independently from the other, with a sectorial and personal “vision”:**

**but the lake is an “unicum” from ecological and cultural point of view!**

**The institution of a “natural protected area” could facilitate the process for a more responsible, shared and discussed use of the resources present in the area.**



### **Urbanization increasing: Bolsena 1960**



## **Bolsena 2000**





**Loss of shores naturality**



**A tipologic example of.....cultural identity**

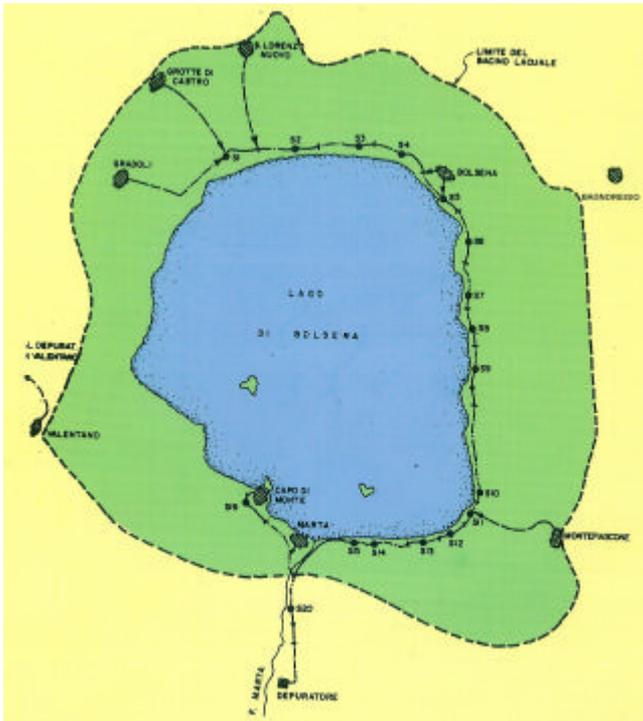
## Pesticides use



## Alien species



# Navigation with and without engine and his effects: pollution but..... not only



**Water  
quality**



- Without the clear persuasion that the conservation of naturalistic and cultural values (landscape included), makes up it-self a non-marginal economic opportunity, will be difficult to obtain effective and coherent actions of governance in this sector.

- If we really consider the “*cultural identity*” as a real chance/resource for the economic development of the area, it must be not only defended from the more immediate attacks, but it must be used to define and to establish the future transformation of the territory, distinguishing between actions and activities that “*can be*” from what “*cannot be*” done, with the mind and the governance action to avoid the lost of value and of competitiveness of the resource itself.

In ogni frammento del mondo  
che definiamo bellissimo  
c'è un'estrema uniformità  
tra quanto è infinitamente diverso”

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Il Patrimonio Mondiale UNESCO  
e la Rete Europea dei Geoparchi:  
la Candidatura della Tuscia

Lunedì 15 settembre 2008 ore 9.30  
Sala conferenze - Provincia di Viterbo  
Palazzo Gentili - Via Saffi, 49 - VITERBO

Logo of the Province of Viterbo, the Province of Viterbo, and the University of Tuscia.



**Pepo is an old fisherman**



**Pepo's son and his dream**



**THERE ARE A LOT OF THINGS TO DO!!**

WE MUST TO THINK IN TERMS OF  
QUALITY TO SHURE TO WE OURSELVES  
AND TO FUTURE GENERATIONS A  
PROSPECT OF “LOCAL DEVELOPMENT”  
IN ARMONY WITH THE “SOUL” OF THIS  
MARVELLOUS SITE.

**THANK YOU FOR ATTENTION!!**