



STUDIES CENTER

Environment Sector

BIOLOGICAL DIVERSITY

The planning of the ecologic webs has the aim to preserve and protect the “*biological diversity*” of the natural ecosystems.

“*Biological diversity*” means the variety of animals and vegetables and the existent complex link and interaction between the species and the environment.

This important concept spread in the scientific literature after the 1992 Rio de Janeiro Convention, when all the big problems related to the conservation of the “*biological diversity*” were brought to worldwide attention.

Today the international scientific community considers the “*biological diversity*” as a basic value: its defence essential to preserve the balance in the climatic, ecological and geological processes and it is something fundamental to pass on to the future generations.

“*Biological diversity*” might, of course, be considered as an economical resource: social services to held in the environment (for old and young people, children) , pharmacology appliances, tourism, agriculture and so on.

“*Biological diversity*” has its best example in the Cecchignola Ditch: it hosts an incredible flora and fauna heritage, above all if we consider the urban context in which this area is placed.

There are, as a matter of fact, the following vegetation and trees:

The Bramble (*Rubus fruticosus*) – it. rovo - where many birds make their nests.

The thistle (*Silybum marianum*) - it. cardo

The Verbasco (*Verbascum thapsus*)

The Borage (*Borago officinalis*) –it. borragine

The Elm (*Olmo campestre*) – it. olmo

The Poplar (*Populus Nigra*) – it. pioppo

The Maple (*Acer campestre*) – it. acero

All of these different vegetation and trees are the living proof of the existence of the water in the underground even if now it is reduced by the intervention of the men who made canals and brought the water to a lowest level than it used in the past (see photos in literature).



STUDIES CENTER

Environment Sector

In spite of the urban eagerness and the pression the area lives because of the many economic interests (read builders), the Cecchignola Ditch is still a very important rawlplug in the “ecological web”.

As far as the animals are concerned in the area there are many important species that are protected by special laws issued by the European Community and the Italian Parliament for the safeguard of the animals and of vegetable species: decisions CEE 43/92/CEE Habitat - 79/409/CEE Birds – (It Law 157/92).

Insects are the biggest slice in the species whole and this is true in the ditch as well but many different and special birds and animals are present here:

Amphibian and reptiles

- Toad (*Bufo viridis*) - it. rospo smeraldino
- Snake (*Elaphe quatuorlineata*) - it. cervone

Diurnal birds of prey

- kite - it. nibbio bruno

Nocturnal birds of prey

- towny owl (it. allocco)- barn owl (it. barbagianni)- owl (it. civetta)

The red woodpecker (it. picchio rosso maggiore) particularly protected by the Italian Law 157/92.

The porcupine (it. istrice)

BIBLIOGRAPHY

APAT (Agenzia Protezione Ambiente e Servizi Tecnici), 2003. *“Gestione delle aree di collegamento ecologico funzionale. Indirizzi e modalità operative per l’adeguamento degli strumenti di pianificazione del territorio in funzione della costruzione di reti ecologiche a scala locale.”* Vol. 26, Manuali e linee guida APAT, pp. 104.

Arias P. E., 1939. *Villa repubblicana presso la Cecchignola*, in “Notizie degli Scavi, pp. 351-359.

Battisti C., 2004. *“Frammentazione ambientale, connettività, reti ecologiche. Un contributo teorico e metodologico con particolare riferimento alla fauna selvatica.”* Provincia di Roma, Assessorato alle Politiche agricole e ambientali e Protezione civile, pp. 248.



STUDIES CENTER

Environment Sector

- Bennett A.F.**, 1999. *“Linkages in the landscapes. The role of corridors and connectivity in wildlife conservation.”* IUCN, Gland, Switzerland, and Cambridge, UK, pp. X+254.
- Blasi C., Dowgiallo G., Follieri M., Lucchese F., Magri D., Pignatti S., Sadori L.**, 1995. *“La vegetazione naturale potenziale dell'area romana.”* XI Giornata dell'Ambiente: La vegetazione italiana. Atti dei Convegni Lincei 115, pp. 422-457.
- Bologna M.A., Bologna M., Carpaneto G.M., Cignini B., Marangoni C., Venchi A., Zapparoli M.**, 2003. *“Anfibi e Rettili a Roma, Atlante e guida delle specie presenti in città.”* Ed. Comune di Roma, pp. 112.
- Caputo C., Del Monte M., Fredi P., Lupia Palmieri E., Pugliese F.**, 1995. In *“The Volcano of the Alban Hills”*, ed. R. Trigila, Roma, pp. 13-32.
- Celesti Grapow L., Fanelli G.**, 1991. *“A map of a vegetation complexes in the urban area of Rome.”* Phytocoenosis n.s. 3 (suppl. 2): pp. 331-336.
- Chatelain**, 1908. *Les monum. d'Orange*, p. 125
- Cignini B., M. Zapparoli** (a cura di), 1996. *Atlante degli uccelli nidificanti a Roma*. F.lli Palombi, Roma.
- De Rita D., Faccenna C., Funciello R., Rosa C.**, 1995. In *“The Volcano of the Alban Hills”*, ed. R. Trigila, Roma, pp. 33 – 71.
- Farina A.**, 2001. *Ecologia del Paesaggio. Principi, metodi e applicazioni*. UTET Libreria, Torino, pp. 673.
- Fornaseri M., Scherillo A., Ventriglia U.**, 1963. *“La Regione Vulcanica dei Colli Albani”* C.N.R., XI, Bardi Ed., Roma, p. 561.
- Fauna Europea Web Service**, 2004. *Fauna Europaea versione 1.1*, disponibile online su <http://www.faunaeur.org>.
- Gaston K.J., J.I. Spicer**, 2004. *“Biodiversity, an introduction.”* Blackwell eds., Oxford, pp. 191.
- Henle K. et al.**, 2004. *“Predictors of species sensitivity to fragmentation.”* Biodiversity and Conservation, 13: pp. 207-251.
- Jongman R.H.G.**, 1998. *“Ecological corridors in Europe.”* PLANECO newsletter, 1: pp. 2-4.
- Liverani Paolo**, 1992. *“Villa Romana alla Cecchignola”*, in: Pontificia Accademia Romana di Archeologia. Rendiconti, pp.173-183
- Ministero dell'Ambiente**, 1999. *“La valorizzazione delle risorse ambientali nelle politiche di sviluppo. La rete ecologica nazionale. Note informative.”* Ministero dell'Ambiente, Servizio Conservazione della Natura, pp. 22.



STUDIES CENTER
Environment Sector

Nogara B., *Mosaici del Vaticano*, tav. 24,1

Pullin A.S., 2002. *“Conservation Biology.”* Cambridge Univ. Press, Cambridge, pp. 345.

Ricklefs R.E., 1993. *“Ecologia.”* Zanichelli, Milano, pp. 849.

Spera L., 2002. *“Via Ardeatina”*, Istituto Poligrafico e Zecca dello Stato

Tomassetti G., 1979. *“La Campagna Romana antica, medievale e moderna”*, Il Firenze

Trigila R., Agosta E., Currado C., De Benedetti A.A., Freda C., Gaeta M., Palladino D.M., Rosa C., 1995. In *“The Volcano of the Alban Hills”*, ed. R.Trigila, Roma, pp. 95 - 165.

Voltaggio M., Barbieri M., 1995. In *“The Volcano of the Alban Hills”*, ed. R.Trigila, Roma, pp. 167 - 192.

Wilson E.O., 1993. *“La diversità della vita.”* Rizzoli, Milano, pp. 472.