



ISTRANCA- IGNEADA LONGOS FORESTS AND ECOLOGICAL DAMAGE

Aslı B. KORKUT Elif S. SISMAN Bahar ETLI

Trakya University Faculty of Agriculture Landscape Architecture Department, 59030
Tekirdağ/ TURKEY

ABSTRACT

Istranca- Igneada Longos Forests* is one of the rare ecosystems of the world. There has been a great damage since 1990 by the implement of “Istranca Streams Project” of ISKI [Administration of Water and Infrastructure of Istanbul] which aims to serve water needs of Istanbul.

The beds of seven streams of the region has been changed towards Lake Terkos within the frame of this project. The construction of Demirköy Dam could be impeded only by an expert report prepared by a team from Trakya University. However its construction restart depending on the decision of Committee of Conservation of Cultural Heritage, Historical and Natural Properties of Edirne made on April 2004. The streams extending in the forest are the vital points of the Longos. Building a dam and changing the beds of the rivers will cause waterlessness in Trakya in future. The forest which has a rich biodiversity has also been conserved by a project funded by World Bank. Within this paper ecosystems, ecological balance and its significance is given and the necessity of conservation of this land is pointed.

INTRODUCTION

Ecosystem is the term which defines any of the countless habitats on earth. It is possible to call them “earth of life”. Ecosystems are the systems formed by the integration and interaction of living and non-living elements such as the forest ecosystems, the ocean ecosystems, the meadow ecosystems [Çepel 2002]. Nature is in a perfect equilibrium within its own ecosystem. In other words the natural system has the ability of sustaining its functions without any problem, every species achieve this by building up ecological balances in their habitats. One of the orchids species is an typical example of this (Fig. 1).

* Igneada Longos is one of the rare ecosystems of periodically flooded forests, swamps, fresh water lakes and coastal dunes. It is an integrated ecosystem of coasts, fresh water lakes, wetlands and forests.

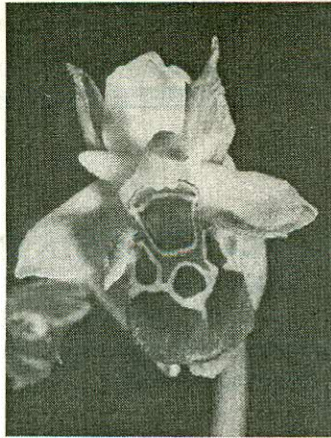


Figure 1. *Ophrys oesrifer ssp. Oestrifera* [Kastamonu] is an example of ecological balance [Çepel 2002]

A typical example nature's ecological balance: An orchids species *Ophrys oesrifer ssp. Oestrifera* [Kastamonu] which continues its generation with the help of its insect-like shape [Sezik1984]. This type of orchids do not have the necessary nutrition to attract insects, however they need to be visited by them in order to continue their generation. This problem was solved in an amazing way by the nature: The flowers of this plant is changed into a shape similar with a female of an insect species [Çepel 2002].

The nature sustain its ecological balances by forming the events called "ecological cycles". The life of human on earth is directly related with the protection of the ecological cycles. But it is not wrong if we say that we do not have the conscious to protect this balance.

One of the rare ecosystems "Igneada Longos Forests" are on the Turkish part of Istranca Mountains. Kırklareli-Igneada ecosystem including Igneada Longos Forests is protected by the support of "**Biodiversity and Management of Natural Resources Project**" of Ministry of Forestry and World Bank. The project which is supported by **GEF** and **World Bank** has started on 1st of August 2000. But the future of these forests are in danger.

Within this study the landscape potentiality of the longos forests and the dangers waiting for them are pointed out in order to manufacture a public opinion on the subject.

ISTRANCA-IGNEADA LONGOS FORESTS & THEIR LANDSCAPE POTENTIALITY

Igneada Longos Forests are on the northern part of Istranca Mountains on the Blacksea Coast by Turkey-Bulgarian border including 900 hectares of an areas (Figure 2).



Figure 2. Research area

There are 5 fresh water lakes rich with water plants. Erikli Lake of 43 ha is a lagoon which loses its connection with sea in summers. Mert Lake of 266 ha is formed where Çavuşdere reaches the sea. Saka Lake is a small one on the southern part of the region amongst the forests and dunes. Hamam Lake of 19 ha and Pedina Lake of 10 ha are on the inner parts (Figure 3).

The dunes of nearly 10 km are important with its plant species originated from Southwest part of Blacksea. This region which is one of the most important bird areas of Turkey is internationally important with its black stork [*Cicciona nigra*] population [www.igneada.com.].

According to the report of an expert team from Trakya University the area includes 165 bird species, 33 mammals, 7 reptiles, 6 amphibia, 84 herbaceous plants, shrubs and tree species. These species are given below [Tok et al, 2001]:

Floristic Elements

Endemic Plants: *Anchusa heterophylla*, *Centaurea kilea*, *Crocus biflorus* subsp. *pulchricolor*, *Fraxinus ornus* subsp. *cilicica*, *Isatis floribunda*, *Paronychia argyroloba*.

Endangered Plants: *Anemone nemorosa*, *Anemone ranunculoides*, *Dianthus barnatus*, *Digitalis grandiflora*, *Galanthus nivalis*, *Leucojum aestivum*, *Onosma nigricaula*.

Faunistic Elements:

Fishes: *Anguilla anguilla*, *Salmo trutta macrostigma*, *Alburnus alburnus*, *Alburnoides bipunctatus*, *Barbus plebejus escherichi*, *Carassius carassius*, *Cyprinus carpio*, *Chalcalburnus chalcoides carinatus*, *Gobio gobio*, *Leuciscus cephalus*, *Leuciscus borystenicis*, *Phoxinus phoxinus*, *Rhodeus sericeus amarus*, *Rutilus frisii*, *Rutilus rubilio*,

Vimba vimba tenella, Cobitis taenia, Cobitis simplicispinna, Synathus abaster, Mugil ramada, Atherina boyeri, Stizostidion luciperca, Gobius gymnotrachelus, Gobius batrachocephalus, Gobius gluviatilis fluviatilis, Gobius melanostomus melanostomus, Ploterorhinus marmoratus, Platicthys flesus.

Amfibia: *Triturus kareline, Bufo bufo, Bufo viridis, Hyla arborea, Rana ridibunda, Rana dalmatina.*

Reptilia: *Testudo graeca, Mauremys caspica, Caluber caspius, Vipera ammodytes montandoni, Natrrix natrrix, Ophisaurus apodus, Lacerta trilineata.*

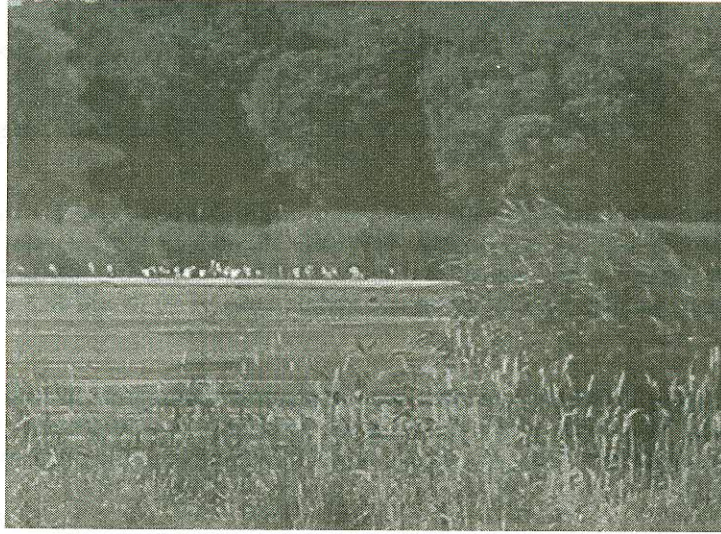


Figure 3. A view from the research area

Mert and Erikli lakes and the wetlands around them are declared as 1 Class Natural Sites accordance with the 944th decision of the Edirne Committee of Protection of Cultural and Natural Heritage on 11.07.1991.

Why Longos Forests and Saroz Bay Are In Danger

The problems occurred by the degradation of the ecological balances consciously or unconsciously may affect human in long or short terms.

Asuvan Dam on the River Nile is said to be a “wonder of engineering” first but in time the ecological balance was irreversibly damaged. A similar situation will occur if Demirköy Dam is constructed on the streams which support the Longos Forests (Figure 4).

The wetlands which are supported by these streams must be protected by both international conventions in which Turkey is involved such as RAMSAR, CITES, PARIS and BORN and by the national or individual commitments on protection of our natural resources.



Figure 4. A view from Igneada-Longos Forests, one of the rare ecosystems.

Great ecological degradation has already occurred since 1990 starting with the implementation of first stage of “Project of Istranca Forests” of ISKI. As a result, the water courses of 7 streams have been changed towards Terkos Lake. The construction of Demirköy Dam could be impeded only by an expert report prepared by a team from Trakya University. However its construction restarted depending on the decision of Committee of Conservation of Cultural Heritage, Historical and Natural Properties of Edirne on April 2004. Because of all these reasons the project of ISKI should be stopped before its too late. Most of the protected areas in Turkey are faced with these kind of problems (Figure 5).

Possible Ecological Problems Depending on Demirköy Dam

Possible ecological problems which will arise depending on the construction of Demirköy Dam are given below;

- The life of the ecosystem will be exterminated by the brake on the nutrition and oxygen cycles due to the construction of the dam.
- The soil will get salty and poorer depending on this.

- This project, which will temporarily serve as a supply of drinkable water for Istanbul, will cause an irreversible ecological degradation. As a result there will not be Kırklareli-Longos Forests and the life cycles anymore.

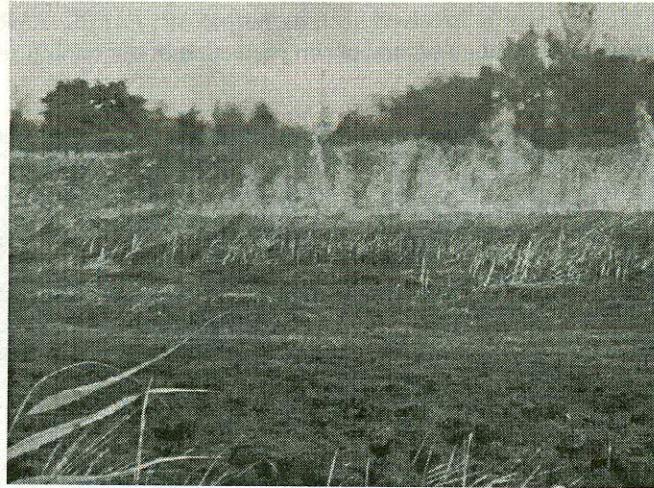


Figure 5. Burning stubble damages the flora and the fauna of the region.

“Transtrakya Oil Pipe Line” which is planned to be constructed along Saroz Bay is another project endangering the natural life consequently the ecosystem. The pipe line is 193 kilometers long and will be constructed between Kıyıköy Coast and Saroz Bay, Ibrice Port. Estimated amount of Russian oil to be transported to the open seas by the line is 60 million tones per year.

Saroz Bay is one of the cleanest seas all over the world besides, the natural values it owns. It also has an historical importance of surrounding the Gelibolu Peninsula. Pipe lines are the threats for the environment they extend through. The entrance of giant tankers into the bay and the depot facilities will demolish the natural and historical values of the area (Figure 6).

The Bay is important with its biodiversity. There are various aquatic and terrestrial living species. The pond on the northern side of the region supports migratory birds periodically. As a brief summary, Saroz Bay is an organized whole with regard to its coastal, geomorphological, ecological, touristic, historical, biogenetic and economical values, its flora and fauna.

Implementation of this project will cause degradation and irreversible ecological disasters as a result.



Figure 6. A view from Saroz Bay, one of the cleanest seas all over the world.

CONCLUSION

It is well known today that human will pay for every single intervention on the perfect balanced nature in its own ecosystem in short or long terms. There has been several examples up to date such as; wrong land uses, wrong spatial development, burnt forests, contaminated water, unconsciously degraded ecosystems and ecological balances by human. The reflection of these events are usually painful for human. The nature gets back what it owns sooner or later.

We have to learn from the past and do not let ecological destructions in order to protect the nature for the sake of our own. We have to avoid every type of activity which is destructive to nature and we have to protect our rare ecosystems.

We must not forget that there is no other Igneada Longos!

There is no other Saroz Bay!

We have already demolished Ergene. Let us not destroy Kirklareli Longos Forests and Saroz Bay! Let us not allow them to destroy them! Let us not connive the mistakes. Let us protect our environment.

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