

Proposal for an Effective Protection Concept for the Troad – A Strategy for the Preservation of an Important Ecological Building Block in the International System of Bird Migration

Gabriel Schwaderer

European Nature Heritage Fund (Euronatur), Konstanzer Str. 22,
78315 Radolfzell, Germany

Abstract

The European Nature Heritage Fund (Euronatur) is committed to the conservation of threatened natural and cultural landscapes and biodiversity. The Troad is quite remarkable from an ecological perspective. It has played an important role as a stopover point for numerous birds within the international migratory bird system. This function of the wetlands around Troia is extremely affected by land usage. In co-operation with the Turkish Authorities and with the support of DaimlerChrysler AG, the European Nature Heritage Fund (Euronatur) conceptualized the first steps towards the goals of the Troia National Park. Nature-friendly tourism, sustainable agricultural and comprehensive ecological education are the aims.

Prologue

The Troad is an important ecological building block within the international migratory bird system. Designating the Troia National Park was an important landmark decision in preserving this region. However, up to now, the implementation of protection strategies is lacking. The remaining natural areas are in jeopardy due to the increased usage of the land that threatens the function of the Troad as a resting place for migratory birds. Also, the agricultural use of the Karamenderes plain is becoming more widespread and intensified. What needs to be done is to conceptualize and implement a protection and management plan for the National Park. The destruction of the remaining natural areas must be stopped immediately and the cultural landscape zones be sustainably developed. It is important to introduce ecological farming methods and to develop efficient marketing strategies for the regional and ecological products.

1

Introduction

1.1

Mission of the European Nature Heritage Funds

The European Nature Heritage Fund (Euronatur) is not predominately active in research, but is committed to the conservation of threatened natural and cultural landscapes and biodiversity. Based on scientific fundamentals, protection and regional development concepts are conceived and implemented. Euronatur is active in approximately 50 European regions and outside Europe as well. Euronatur's fundamental goal is bird migration. The environmental changes in the past decades have had dramatic effects on migratory birds. This is directly connected to the depletion of wetlands. It is quite clear that in order to preserve migratory birds it is not only necessary to protect their breeding areas, but it is vitally important to protect their winter and resting areas.

1.2

The Troad: Land of Homer

The Troad is not only remarkable from an archaeological standpoint, but from an ecological perspective as well. It has played an important role throughout history as part of the trade network between north and south, as well as west and east. Today the Land of Homer is still an intricate part of the international migratory bird system. The mouth of the Dardanelles, where Europe and Asia meet, is a vital stopover point for numerous migratory birds.

The Troad belongs to the Marmara Region and is part of the crossover area between the Mediterranean and Black Seas, as well as Asia and Europe. It is here that elements of the Balkans, Mediterranean and Inner Anatolia unite, creating a rich flora and fauna.

Since the designation of the Troia National Park in 1996, the natural and cultural heritage of the Troad has been protected. Nevertheless, many areas of this fascinating landscape are still being intensely used. Only in some areas have vital ecological habitats been less affected. The purpose of this proposal is to accentuate the ecological values, their threats and the vital approaches necessary to facilitate their protection.

2

Biodiversity: Within an Archaeological Focus

2.1

The Migratory Routes Within the Eurasian – African Migratory Bird System

Within the Eurasian–African migratory bird system there are two main routes – the western and the eastern. The migratory route over Italy and Sicily to North Africa plays a minor role within the migratory system. Millions of migratory birds connect the continents of Europe, Asia and Africa. The Troad is a vital part of the eastern migratory route due to its extensive wetlands which are important resting places for numerous bird species. The function of these wetlands is extremely affected by land use. It is proven that in the past numerous cranes (*Grus grus*) rested in the Troad. Recent polls indicate that in the past few years cranes have not been seen here during migration periods.

2.2

The Troad: Summary

The Troad is characterized by the plains of the Karamenderes (Scamander) and Dümrek Rivers that share a common delta and the bordering hilly terrain. In an ecological landscape analysis vital natural areas were identified and ecologically evaluated (Herrn 2000): Lifelines of the Troad are the Karamenderes and Dümrek Rivers, the irrigation canals used as secondary biotopes, the areas in between land and sea with an extensive undisturbed coastline, and the oak scrub and oak groves.

2.3

The Common Delta of the Karamenderes and Dümrek Rivers

The Karamenderes is a vital lifeline of the Troad. Although in the 1950s dikes were built along, its shores it still remains a habitat for many endangered animal species and plants. Willows and tamarisk line the shores of the Karamenderes. The little crane (*Porzana parva*) is found here, as well as the squacco heron (*Ardeola ralloides*), the night heron (*Nycticorax nycticorax*), the little egret (*Egretta garzetta*), and the heron (*Ardea cinera*). The little ringed plover (*Charadrius dubius*) lives along the sandbanks of the river. Green and wood sandpipers (*Tringa ochropus* and *Tringa glareaola*) rest here during spring migration to their northern breeding areas. The observation of sand martins (*Riparia riparia*) along the river leads to the conclusion that there are breeding colonies in isolated areas.

The delta of the Karamenderes and Dümrek Rivers consists of numerous tributaries and large sandbeds that are surrounded by reeds and rush of various kinds.

2.4

Irrigation Canals: Vital Secondary Biotopes

Today, only a few areas of the Karamenderes plains are not used for agricultural purposes. In the last 5 years, the swamps and wetlands have been drained extensively. A complex canal system is used to irrigate the corn and vegetable fields. The main canals, which are not reinforced, are vital secondary biotopes and are the final retreats for many aquatic animal species. Here, the squacco heron, the pond terrapin (*Emys orbicularis*), and the white stork (*Ciconia ciconia*) find their habitats.

2.5

Between Land and Sea

Most of the Troad coastline is a nonconstruction area. Here, the high-quality dune vegetation is still intact. On the steep slopes Mediterranean scrub grows adjacent to the narrow dunes. Here, the woodchat shrike (*Lanius senator*), the lesser grey shrike (*Lanius minor*), the hoopoe (*Upupa epops*), the bee-eater (*Merops apiaster*), and the black-eared wheatear (*Oenanthe hispanica*) find their habitat. The coastline is an important passage area for small bird species. It is assumed that in this context the Donkey and Hare Islands (Eşekadası and Tavanadası) play an important role.

2.6

The Dardanelles and Aegean

The straits of the Dardanelles separate Europe and Asia by a few kilometers. The narrowest part of the straits is only a little more than 1 km wide. For many birds on their eastern migratory journey the Dardanelles provide an important stepping-stone during their yearly migration. Bird species that predominately rely on gliding have difficulties crossing wide bodies of water where there are no upward thermal currents. For these birds the narrow straits are essential and the subsequent retreat areas of the Troad, especially the wetlands, are most important resting places.

There are still various aquatic mammals like the common dolphin (*Delphinus delphis*), the bottle-nose dolphin (*Tursiops truncatus*) and the striped dolphin (*Stenella coeruleoalba*) found in the Aegean and the Dardanelles. The severely endangered monk seal (*Monachus monachus*),

which lived here in large numbers during Homer's time, has vanished. The shearwater (*Puffinus puffinus*), a typical bird species found in the Dardanelles, can be seen in large flocks flying restlessly along the Dardanelles.

2.7

Oak Scrub and Oak Groves

Remains of oak scrub and groves can still be found in the area of the Hasan Paşa Tower. However, the Troian oak (*Quercus trojana*) is rarely seen. The hoopoe, the woodchat shrike and the bee-eater are typical bird species that live in the oak groves. The green lizard (*Lacerta viridis*) is also quite common here. The remains of the oak scrub and groves urgently need to be protected from further destruction.

3

Responsibility for an Important Natural and Cultural Heritage

3.1

Troia National Park: Laws and Reality

In the Troad, the Turkish Government has designated a historical national park encompassing 13,648 ha. This was a landmark decision to preserve the cultural and ecological riches of the region. Compared with international measures, the Troad as a National Park is not the ideal category of a protected area. National parks should predominantly contribute to the undisturbed natural development process without the interference of man (Europarc and IUCN 1999). Approximately 75 % of the Troad National Park has been used for agricultural purposes for some 8000 years.

In 1998 UNESCO declared the archaeological riches of Troia a World Cultural Heritage. With this status comes a high degree of responsibility for the archaeological sites as well as the remaining natural treasures. It is the goal within the alliance of scientists, conservationists, public and private sectors to preserve Troia and its surroundings for future generations through the application of sustainable methods.

As early as the 1970s, a preliminary master plan for the protection of the Troad was conceptualized, but protection was violated in many circumstances. Contrary to the national park status, streets and harbors are still being constructed and agriculture has been intensified. There is neither a national park administration, nor are there park rangers to monitor the park. Directly on the border of the national park a dam has been built on the Karamenderes River which will drastically restrict the water supply to this lifeline of the Troad.

3.2

Construction and Intense Use Threatens the Biodiversity of Troia National Park

The designation of the national park has not yet protected the remaining natural areas effectively. The Karamenderes River will be blocked directly on the national park border by a dam at Araplar Bogazı. This will dramatically affect the hydrological system of the Karamenderes River and it is more than likely that agricultural irrigation of the plains will be intensified. The canals that are not reinforced will be substituted by elevated cement waterways throughout the plains. It is feared that the nonreinforced irrigation canals will cease to exist and that their optimization will lead to further intensified land use. The analysis of aerial and satellite pictures confirms that the delta of the Karamenderes and Dümrek Rivers has recently been decimated by agricultural use. Intense urbanization projects have negatively affected the coastal areas even after the designation of the national park. The harbor near Yeniköy, whose function is still not clear, is a serious disturbance.

The agriculture in the plains is not sustainable. Vegetables, corn and cotton are grown predominantly. Harvesting takes place three to four times a year and chemical fertilizers and pesticides are used. Wooded areas on the plains and slopes that complicate modern mechanical agricultural methods are being removed.

4

A Comprehensive Protection Plan for the Troad

4.1

Trojan Peace with Nature

Troia – a symbol of war, confrontation and dispute – should now become a place of peace with nature. In cooperation with the Turkish authorities and with the support of DaimlerChrysler AG, the European Nature Heritage Fund (Euronatur) conceptualized the first steps towards the goals of the Troia National Park. Nature-friendly tourism, sustainable agricultural and comprehensive ecological education are the aims. Top priority is the approval and implementation of an ecological master plan for the preservation of the remaining retreats for animals and plants in the Troad. If successful – assuredly the crane will once again appear in the Troad to rest during its migratory journey.

4.2

Troia National Park: A Protection and Management Concept

There are two vital factors necessary to preserve the biodiversity of the Troad: the remaining retreats must be protected from further destruction, and use of the cultural landscapes must be ecological and sustainable. It is not intended to ban agriculture in the National Park, but to prevent any further destruction of the sensitive remaining natural areas. The development of a zoning concept – including comprehensive and verifiable goals with regard to the protection of the natural areas – is an imperative part of the master plan. In addition, it is necessary that the protected areas be linked by biotope-connecting measures. The focus of this initiative and its strategies were worked-out and discussed in a workshop in December 2000 in Troia (Euronatur 2000). The participants included an international team, Turkish authorities and regional representatives.

4.3

The Next Step and Future Prospects

In March 2001 the Turkish Department of Forestry commissioned a concept of the management plan for the Troia National Park. The completion of this plan is expected by autumn 2001, and its implementation is to begin immediately thereafter. For this purpose, a park administration and well-trained park rangers are essential.

The natural areas of the Troad cannot withstand any additional destruction if we want this region to fulfill its function as a resting area within the international migratory system. It is imperative that land use be conducted in environment- and nature-friendly ways. For this purpose, it is essential that ecological agricultural methods be implemented and the marketing of organic products be developed. The Troad as a tourist attraction is an ideal environment for the development of an alliance of agriculture, nature conservation, tourism and gastronomy. These benefits should be consequently utilized for the sustainable development of the Troad.