

European Diploma for Protected Areas

Volcanic phenomena of the Tihany Peninsula
(Hungary)

Appraisal Report July 3th – 7th, 2017



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Background

- The European Diploma for Protected Areas was awarded to the Tihany Peninsula in 2003.
- It was renewed in 2008 and again in 2012 (without appraisal visit) until May 2018. In addition, detailed annual reports have been regularly provided to the secretariat in Strasbourg with very useful information.
- The present evaluation, (16 and 17 May 2017), was carried out in the perspective of the renewal of the Diploma in 2018 for another 10 years' period
- The Diploma area has remained largely the same as it was at nomination time, 15 years ago, with the exception of the visitor's infrastructures which have been significantly enlarged and improved

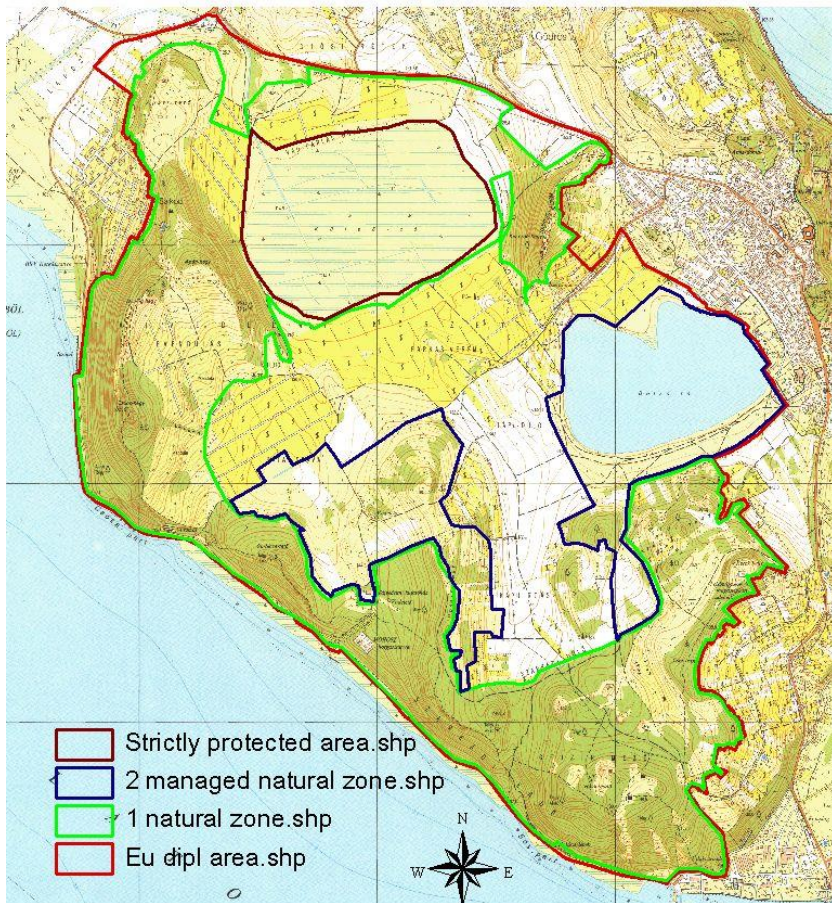




SITUATION AND VALUE OF THE PARK

- The Tihany Peninsula is located in the North-East part of Lake Balaton, in South-West Hungary.
- On a relatively small area, it is a beautiful cultural landscape with a well-known Abbey overlooking a mosaic of forests, pastures with traditional cattle breeds, lakes, wetlands, vineyards and lavender fields constituting a mixture of natural values and cultural heritage.
- The most exceptional assets are the geological artifacts, witnesses of the volcanic activity which took place 7 million years ago.
- The climate is submediterranean. Due to the form of the landscape, there is a high variety of local micro-climates and a very interesting diversity of vegetation, fauna and flora.
- As part of the Balaton lake recreation area and of the Balaton Upland National Park, the Peninsula is a very heavily visited place, especially in summer and during the weekends.

The volcanic phenomena of the Tihany peninsula European Diploma Holding Area





Bakony-Balaton

Geopark

Assets

- Part of Balaton Upland National Park and the Bakony-Balaton Geopark, first protected landscape in Hungary (1952)
- 645 ha, 137 strictly protected
- Unique geological values (volcanic phenomena)
- High natural values (vegetation, fauna, flora)
- 2 adjacent wetlands on both sides are managed in a very similar way; they could have been included in the Diploma holding area.

- Very interesting cultural values
- Good management, based on a detailed management plan
- Important education and information activities
- Very high value for science (long term diverse scientific research)
- Special programmes for species protection (amphibians, souslik, local varieties of plants and animals).

Volcanic and post volcanic formations

- Most interesting aspects: tuffs, tuffites and agglomerates deposited on the soft Pannonean sediments, which were topped by the harder thermal spring precipitations.
- The spring cones resulted from deposits of thermal water. They are about 100 springs in the Peninsula, with very varied shapes and dimensions.
- The hard basalt slopes have limited soil cover and are very interesting from the botanical point of view. Other forms include tafonis (holes and cavities) and kahrs (small karst formations).



Vegetation and flora

- The vegetation types go from the most humid (the two inner lakes, the marshes and the shore of Lake Balaton), to the driest such as the steppic formation and vegetation on cliffs.
- There are various types of meadows, with an interesting flora. Several rare submediterranean plants, such as *Sternbergia colchiciflora*, *Scilla autumnalis* grow in the grassy steppes
- Forest variety of warm and dry types such as Cotino – Quercetum pubescentis and other types of oak forests with *Quercus petraea* and *Quercus cerris*.
- Invasive species continue to spread in the whole territory. The most problematic are *Eleagnus angustifolia*, *Robinia pseudoaccacia* and, especially, *Ailanthus altissima*, which grows very fast and is very difficult to control
- About 60 ha of pasture with old oak and almond trees have been cleared of alien species and bushes



Fauna

- Richness in xerothermic species. Over 1,000 species of insects have been identified; 800 butterflies occur here, some extremely rare. Interesting fauna of bees and wasps
- Rich reptiles and amphibians fauna, with, respectively 8 and 9 species known.
- Birds count 95 breeding species including the marsh harrier *Circus aeroginosus*, the purple heron *Ardea purpurea*, the bee eater, *Merops apiaster*, the common scops owl *Otus scops*.
- There are 31 species of mammals. Good colony of souslik (successfully reintroduced), Wild cat, Otter and Daubenton's bat, *Myotis daubentoni*. Important populations of deer, roe deer and wild boars are a concern for agriculture and forestry.
- Grazing has been almost abandoned, but rare breeds (gray cattle) have been reintroduced for management purpose.
- Short grass meadows are maintained close to the visitor center, and a good population of souslik has been reestablished. Souslik should also contribute to the reinforcement of 2 threatened birds : Imperial eagle and Seker falcon.

Management

The main objectives are:

- the preservation and presentation to visitors of the unique geological values;
- the maintenance of the typical landscape;
- the conservation of the typical natural and semi natural habitats and of the fauna and flora;
- the conservation of pastures (with souslik and grey cattle traditional breed), and lavender fields;
- the promotion of education, information and research on the area;
- the control of the constructions outside of the village area.

Management instruments

A comprehensive management plan, finalised in 2002 and updated in 2007, is still in force. The descriptive aspects are extremely well covered and very few changes occurred during the last 15 years.

Tihany Peninsula is actually covered by several other documents, namely:

- National Park management plan
- Geopark Management Plan
- Forestry management plan
- Natura 2000 expected management plan
- Municipal development plan (established in 2013 for 25 years)

More management measures appear in the annual programmes. However, the different management documents are well coordinated but not really synchronized (different dates of adoption and renewal cycles).

➔ The Diploma area would greatly benefit from ***a synthetic summary management document***, bringing together the relevant chapters of the above-mentioned planning documents (“umbrella document” - see recommendations below).

Land ownership and zoning

- > 50 % of the land is owned by the National Park, and about 15 % by the forest service - many changes in land ownership during the last few years.
- National Park pursues its policy of land acquisition on the territory of the peninsula. The State (National Park) has a pre-emptive right however, the attractiveness of the area has led to very high land property prices! → ***land acquisition to be encouraged!***

Three specific types of zones are delimited in the European Diploma area:

- strictly protected area (incl. lake Külsö) - exceptional interventions;
- natural zone (limited interventions, for safety or invasive spp control)
- managed natural zone (with management measures).

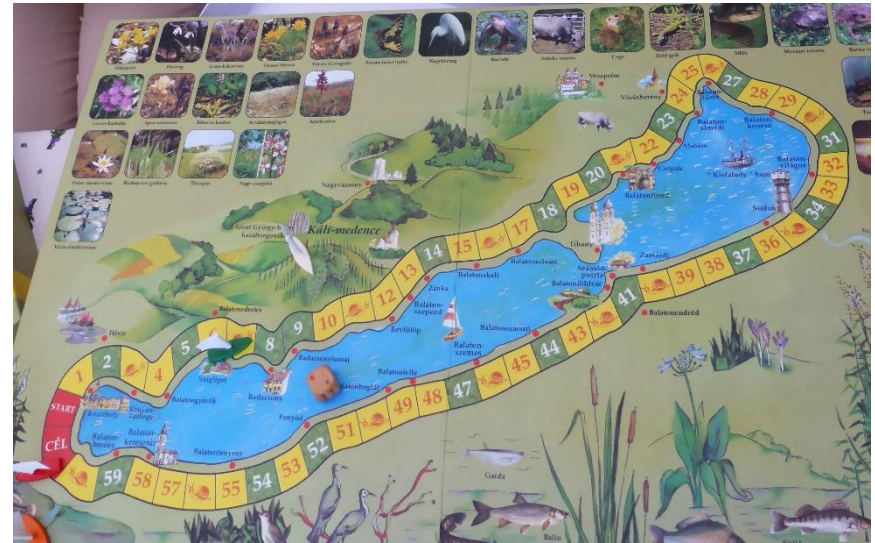
The vineyards and other cultivated land (lavender fields) are outside of these three zones; it would be nice to include them into a 4th zone for clarification.

Hunting and Fishing

- The hunting rights belong to the National Park. There is no hunting per se. Regular but limited culling is done by the NP staff to reduce the number of wild boars, deers and foxes.
- Fishing is practiced on Lake Belsö. It is restricted to a limited part of the shore to protect the riverine vegetation
- The fishing management was given back to the State and has been transferred to the National Park, while the fishing rights of the Inner-Lake still belong to the local angling association until October 2017. An initiative was submitted to the Ministry of Agriculture to take over the fishing rights based on European Diploma recommendations. The decision was expected to take place after expiration of the previous fishing right (October 2017).

Education, information and Research

- Education is high on the priorities of Balaton Uplands NP. Comprehensive network of hiking trails, with information boards and which can be considered as nature trails. The quality of information (volcanism, environment, fauna, flora, management practices) is very good.
- Two large facilities have been constructed or renovated for educational purpose:
 - The Lavender Center, on the edge of the village, next to Lake Belsö, opened in 2011 and managed by an independent organization
 - A renovated building called “Forest school” is located not far from the South West coast. It hosts groups (classes) of teenagers for stay between 1 to 5 days. It is largely used and the information is very well developed, especially on the geological aspects.
- Tihany has always attracted scientists. The Hungarian Balaton Limnological Research Institute was founded in 1927 in Tihany. Hundreds of publications are recorded, dealing with its geology, fauna and flora. The research very positively influenced the protection and management of the area.



RECOMMENDATIONS FROM THE LAST RENEWALS

Several recommendations were issued After the field appraisal of 2007 and the renewal of 2012. Most of them have been implemented, but some of them need to be extended due to the remaining pressure from outside on the peninsula and its value.

1 (07) / 3 (12): pursue the planning and construction of the visitors centre near Lake Belsö;

➤ ***The Center has been built, equipped and is fully operational***

2 (07) / 1 (12): translate the management plan into more detailed and practical measures;

➤ ***The 2007 management plan should be updated / renewed; however different documents at larger scale (NP, Geopark, N2K) exist. They should be combined in a summary document specific to the peninsula.***

3 (07) / 2 (12): strongly enforce the interdiction of new building on the site;

- ***The actual zoning is good, but pressure for new constructions is ongoing. The municipality and the National Park should work together to ensure respect of the non-construction status of the protected area***

4 (07) / 4 (12): continue to manage and control the visitor's pressures;

- ***The visitors' management is very efficient and the information system very good.***

5 (07) / 7 (12): encourage the transfer of the management rights on fishing in Lake Belsö to the Balaton Uplands National Park;

- ***An initiative was submitted to the Ministry of Agriculture to take over the fishing rights based on European Diploma recommendation. The decision is expected by October 2017.***

6 (07) / 6(12) keep the balance between closed forested areas and open areas (meadows with hedges and bushes);

- ***Clearing of several meadows invaded by bushes has been completed recently; the actual balance is quite good.***

7 (07) / 6(12): encourage farming and vineyards growing practices in harmony / consistent with the conservation of natural and landscape values;

- ***It is difficult to check the type and amount of chemicals used in the vineyard; however, there is a general tendency to reduce the use of pesticides in vineyards. On the other hand, some vineyards are planted very close (upstream) to the strictly protected zone (lake). Establishment of a larger and functional buffer zone would be highly suitable for water protection.***

8 (07) / 8(12): encourage the transfer of state properties to the Balaton Upland National Park and pursue the acquisition of private land;

➤ ***Ongoing, but somewhat limited due to financial constraints***

9 (07) / 9(12): continue the control of invasive species such as *Ailanthus*;

➤ ***Ongoing – but this is a never-ending job!***

10 (07) 7 10(12) develop a coordinated management with the protected areas close, such as the reed beds on the shore of Lake Balaton and the marsh of Kűlso and Felső

➤ ***Done***

Conclusion

- The Tihany peninsula is extremely well managed by a very competent team under the administration of the Balaton Upland National Parks. The natural and cultural values have been well preserved and a high-quality information system had been built and is operated.
 - The overall value of the Tihany Peninsula is well recognised in Hungary and is reinforced by different international designations. As part of the Balaton lake area, it is under a very significant touristic pressure; however, the responsible authorities work very efficiently together for its conservation and there are very limited signs of this pressure
- ➔ *The expert therefore proposes **to renew the European Diploma to the Volcanic phenomena of the Tihany Peninsula for a 10-years period, with the following recommendations:***

Recommendations

1. Update the 2007 Management plan and prepare a synthetic summary integrating the other relevant planning instruments currently applicable to the site; define management objectives for the 5 main zones.
2. continue, together with the Municipal authorities, to enforce the ban on new buildings on the site;
3. continue to manage and control visitor pressure; together with the Municipal authorities take measures to moderate the motor traffic in the peninsula;
4. keep the balance between closed forested areas and open areas (open meadows, meadows with hedges and bushes, lavender fields with oaks and almonds);

5. encourage farming and wine-growing practices consistent with the conservation of natural and landscape assets, and establish a functional buffer zone between the vineyards and the wetland zone;
6. pursue the acquisition policy of private land;
7. take the necessary steps to improve the water quality of the Belső Lake;
8. continue to control invasive species such as the *Ailanthus*;
9. continue the co-ordinated management with nearby protected areas such as the reed beds on the shore of Lake Balaton and the Külső and Felső marshes

A Külső-tó
The Outer Lake

A Külső-tó a félsziget egykori vulkánjának főkráterében keletkezett, erősen feltöltődött, sekély tó, a tengerszint felett 116 m magasságban. Az 1800-as évek elején levezető csatornákat ástak, hogy a tó vírét az Aszói-síden keresztül a Balatonba vezessék. A lecsapott területet kaszálóként hasznosították. 1976-ban az akkori természetvédelmi hatóság vette át a terület kezelését. A levezető csatorna lezárásával ekkor kezdődött meg a tó eredeti állapotának visszaállítása. Az azóta eltelt három évtized alatt a vízi növényzet teljesen visszatelepült, s megjelentek a vizes élőhely jellegzetes állatfajai is.

Dunai terasz görge
Danube Crested Newt

Mocsári teknős
Swamp terrapin

Gazdag a vízhez kötődő rovarvilág, különösen sok ritka fajtakötőfaj találta itt meg életfeltételeit. Nagyszámú kétlábú és hüllő él a tóban, a mocsári teknős állománya kiemelkedő. A madarak közül a nyári lúd, a bölömbika vagy a barna rétihéja hosszabb ideje költ itt, az utóbbi években pedig a nagykocscsok, bakcsók, vörös és szürke pércék nagy kollektélepe jött létre.

Nagykocscsok
Great White Egret

Insect life relying on water is diverse, several rare dragonflies have found suitable conditions for survival here. Of the large number of amphibians and reptiles living in the lake, there is an outstanding abundance of swamp terrapin. Birds brooding here for some time now are the greylag goose, the great bittern and the marsh harrier. In the last few years extensive brooding colonies of great egrets, night herons, purple and grey herons have formed.

Vöröslégy - Purple Heron



Thank you !

