IUCN Conservation Outlook Assessment 2014 **(archived)**
Finalised on 17 November 2015

Please note: this is an archived Conservation Outlook Assessment for Danube Delta. To access the most up-to-date Conservation Outlook Assessment for this site, please visit https://www.worldheritageoutlook.iucn.org.

Danube Delta

SITE INFORMATION

Country:
Romania
Inscribed in: 1991
Criteria:
(vii) (x)

Site description:
The waters of the Danube, which flow into the Black Sea, form the largest and best preserved of Europe's deltas. The Danube delta hosts over 300 species of birds as well as 45 freshwater fish species in its numerous lakes and marshes. © UNESCO

SUMMARY

2014 Conservation Outlook

Good with some concerns

While he site’s unique features as the largest continuous marshland in Europe and the second-largest delta, as well its biodiversity values remain well-preserved, concerns exist about populations of some species and ongoing threats from pollution, illegal human activities and invasive species. Other threats include development of tourism infrastructure and, in the long term, climate change. Overall, the management of the site is mostly effective. However, some concerns remain with regards to sustainable long-term financing, as well as enforcement and prevention of illegal activities.

Current state and trend of VALUES

Low Concern
Trend: Stable

The site’s unique features as the largest continuous marshland in Europe and the second-largest delta remain well-preserved. Site’s biodiversity remains relatively well-preserved; however, concerns exist about populations of some species and ongoing threats from pollution, illegal human activities and invasive species.

Overall THREATS

High Threat

Water pollution, illegal fishing and tourism infrastructure development, as well as associated intensification of navigation routes represent the most serious current threats. Climate change is one of the most serious threats to the site’s biodiversity, together with invasive species whose further spread would pose a serious threat to the native fauna of the Danube Delta. Further uncontrolled development of tourism infrastructure and intensification of navigation also represent potential threats to the site’s integrity.

Overall PROTECTION and MANAGEMENT

Mostly Effective

Overall, the management of the site is effective. However, concerns remain with regards to sustainable long-term financing, as well as enforcement and prevention of illegal activities.

FULL ASSESSMENT

Description of values

Values

World Heritage values

▶ **The largest continuous marshland of Europe and the second-largest delta**
Criterion:(vii)

This is the largest continuous marshland of Europe and the second-largest delta, which includes the greatest stretch of reedbeds in the world. The marsh vegetation is dominated by reeds which form floating or fixed islands of decaying vegetation Reeds cover some 1,700 km2 and the floating reed islands (plaur) 1,000 km2 , whereas the total area not inundated is only 148 km2 (WHC website, retrieved 2014).

▶ **Critical habitat for migratory birds and other animals**
Criterion:(x)

The Danube Delta is a remarkable alluvial feature constituting critical habitat for migratory birds and other animals. It is the major remaining wetland on the flyway between central and Eastern Europe and the Mediterranean and Middle East and Africa. Over 300 species of bird have been recorded, of which over 176 species breed, the most important being cormorant, pygmy cormorant, white pelican and Dalmatian pelican. There are numerous multi-species heron colonies and raptor species including white-tailed eagle. The marsh tern colonies are especially notable. The delta holds huge numbers of geese in the winter white-fronted geese, red-breasted geese (a globally threatened species with almost all the world wintering population present),

teal, mallard and pochard (WHC website, retrieved 2014).

Assessment information

Threats

Current Threats

High Threat

Water pollution, illegal fishing and tourism infrastructure development, as well as associated intensification of navigation routes represent the most serious current threats.

▶ **Shipping Lanes**

High Threat
Inside site
Outside site

Growing visitor numbers have also resulted in increased number of motors boats. To prevent the negative impacts Danube Delta Biosphere Reserve Authority has developed Rules for navigation in the Danube Delta which introduced access and speed restrictions (SP report, 2007).

▶ **Water Pollution**

High Threat
Inside site
Outside site

Pollution carried downstream in the Danube represents a high threat with high levels of pesticides, herbicides and fertilizers. Water pollution and the resulting algal blooms have had significant negative impact on a number of fish species, as well as the numbers of migratory fish.

▶ **Tourism/ Recreation Areas**

High Threat
Inside site

Outside site

Growing tourism in the region has been associated with development of accommodation facilities and navigation routes. The number of hotels and associated infrastructure in the area has been increasing in the recent years (SP report, 2007)

▶ Fishing / Harvesting Aquatic Resources

High Threat
Inside site
Outside site

Fishing represents one of the main sources of income for many of the local communities. Infringement of regulations on fishing still occurs despite actions jointly undertaken by various authorities (SP report, 2007).

Potential Threats

High Threat

Climate change is one of the most serious threats to the site's biodiversity, together with invasive species whose further spread would pose a serious threat to the native fauna of the Danube Delta. Further uncontrolled development of tourism infrastructure and intensification of navigation also represent potential threats to the site's integrity.

▶ Tourism/ Recreation Areas

High Threat
Inside site

Further tourism development would result in further development of tourism infrastructure and intensification of navigation.

▶ Habitat Shifting/ Alteration, Droughts, Temperature changes

High Threat
Inside site
Outside site

Likely consequences of climate change - frequent floods, long periods of drought, deteriorating water quality can have significant impact on

the site’s biodiversity (WWF, 2013).

▶ Invasive Non-Native/ Alien Species

High Threat
Inside site
Outside site

A number of invasive species have been observed in the Danube, including the zebra mussla Dreissena polymorpha, the river nerite Theodoxus fluviatilis, or the Asian clam Corbicula flumines, the spread of which is mainly caused by the increasing interconnection of various European water bodies by canals and other waterways (http://www.icpdr.org).

Protection and management

Assessing Protection and Management

▶ Monitoring

Mostly Effective

The existing monitoring system is adequate (Periodic report, 2014).

▶ Research

Data Deficient

Data deficient

▶ Relationships with local people

Data Deficient

Data deficient

▶ Legal framework and enforcement

Mostly Effective

Existing legal framework includes Law 82/1993, completed by the Law 454/2001, regarding the establishment of the Danube Delta Biosphere Reserve, as well as Governmental Decision 248/1994, completed by the Governmental Decision 367/2002 regarding the implementation of the Law

82/1993, including zonation of the reserve, the Statute of the Danube Delta Biosphere Reserve and the Danube Delta Biosphere Reserve Authority. The Danube Delta Biosphere Reserve is divided in strictly protected areas, surrounded by buffer zones. These two types of zones (with a total area of 273,900 ha) are part of the World Heritage property. The difference between the surface of the Biosphere Reserve of 580,000 ha and these protected areas of 273,900 ha, is represented by economic zones with an area of 306,100 ha, and surrounds the World Heritage property, except the marine buffer zones (Periodic Report, 2014). Enforcement could be further improved including measures undertaken to control illegal fishing activities.

► Integration into regional and national planning systems

Data Deficient

Data deficient

► Management system

Mostly Effective

The World Heritage property is managed by the Danube Delta Biosphere Reserve Authority under the coordination of the Ministry of Environment and Forests. The last revision of the Management Plan was done for the period 2008-2012. Preparation of a new management plan is funded through an EU project (Periodic report, 2014).

► Management effectiveness

Mostly Effective

Overall, the management of the site is effective. However, concerns remain with regards to sustainable long-term financing, as well as enforcement and prevention of illegal activities.

► Implementation of Committee decisions and recommendations

Data Deficient

Data deficient

► Boundaries

Mostly Effective

The boundaries of the site are adequate.

► Sustainable finance

Mostly Effective

The available levels of funding were assessed as "acceptable" by the 2014 Periodic Report, but further increase in funding is needed to fully meet management needs. The funding mainly comes from governmental sources.

► Staff training and development

Some Concern

Available human resources were assessed as "below optimum" by the most recent Periodic Report (2014).

► Sustainable use

Some Concern

Concerns have been expressed regarding the extent of tourism impacts (SP report, 2007). More rigorous regulation of tourism development in the area is needed.

► Education and interpretation programs

Mostly Effective

A number of education and interpretation programmes exist, but further improvements could be made to ensure better presentation and interpretation of the Outstanding Universal Value of the property (Periodic report, 2014).

► Tourism and interpretation

Some Concern

An overarching strategy for sustainable tourism development is needed to help prevent impacts from inappropriate tourism infrastructure development and uncontrolled tourism activities.

Overall assessment of protection and management

Mostly Effective

Overall, the management of the site is effective. However, concerns remain with regards to sustainable long-term financing, as well as enforcement and prevention of illegal activities.

▶ Assessment of the effectiveness of protection and management in addressing threats outside the site

Data Deficient

Data deficient

State and trend of values

Assessing the current state and trend of values

World Heritage values

▶ The largest continuous marshland of Europe and the second-largest delta

Good
Trend:Stable

The site’s unique features as the largest continuous marshland in Europe and the second-largest delta remain well-preserved.

▶ Critical habitat for migratory birds and other animals

Low Concern
Trend:Deteriorating

No significant changes in populations of main species have been observed since the site’s inscription on the World Heritage List. However, some nesting places of Dalmatian pelicans are being affected by different factors (variation of water levels, degradation of floating islands serving as natural nesting areas) (SP report, 2007). The “Saving Pelecanus Crispus in the Danube Delta” LIFE Project has led to some positive results, including stabilized breeding

populations in some sites (Project layman report, 2009). As for freshwater fish species, industrial fishing has had a dramatic impact on certain species, such as sturgeon. Despite the introduced fishing ban for this species, it remains under threat.

Summary of the Values

▶ **Assessment of the current state and trend of World Heritage values**
Low Concern
Trend: Stable

The site's unique features as the largest continuous marshland in Europe and the second-largest delta remain well-preserved. Site's biodiversity remains relatively well-preserved; however, concerns exist about populations of some species and ongoing threats from pollution, illegal human activities and invasive species.

Additional information

Key conservation issues

▶ **Growing visitors numbers and tourism infrastructure development**
Local

Growing tourism in the region has been associated with development of accommodation facilities and navigation routes. The number of hotels and associated infrastructure in the area has been increasing in the recent years (SP report, 2007)

▶ **Water pollution**
Regional

Pollution carried downstream in the Danube represents a high threat with high levels of pesticides, herbicides and fertilizers. Water pollution and the resulting algal blooms have had significant negative impact on a number of fish species,

as well as the numbers of migratory fish.

Benefits

Understanding Benefits

► Fishing areas and conservation of fish stocks

Fishing represents an important source of income for local communities. However, better enforcement of fishing regulations is needed.

► Outdoor recreation and tourism

The site is major tourism destination for national and international tourists.

Projects

Compilation of active conservation projects

№	Organization/ individuals	Project duration	Brief description of Active Projects
1	N.A.		N.A.

REFERENCES

№	References
1	P. Gâştescu, R. Ştiucă. Danube Delta, Biosphere Reserve, Ed. CD PRESS, 2008.
2	P. Gâştescu, W. Lewis, Jr., P. Breţcan, Water resources and wetlands, Conference proceedings, 14-16 September 2012, Tulcea, Romania, Ed. Transversal, 2012
3	Periodic report, 2014.
4	State Party report, 2007.
5	WHC website, retrieved 2014
6	WWF, 2013. Vulnerability of Danube Delta (Moldova, Romania, Ukraine) to climate change including scenarios and forecasts of climate change.
7	http://www.icpdr.org
8	“Saving Pelecanus Crispus in the Danube Delta”. Project layman report, 2009.