ŠKOCJANSKI ZATOK NATURE RESERVE
THE GREEN HEART OF THE SLOVENIAN COAST

Škocjanski zatok Nature Reserve is the largest brackish wetland in Slovenia. It is located on the outskirts of the coastal city of Koper and consists of brackish lagoon surrounded by reedbeds and agricultural land which is to be turned into a freshwater marsh. An outstanding quality of the Nature Reserve is its rich flora and fauna which boasts a number of rare or endangered Slovenian species.

Before degradation in the middle 1980s, the brackish lagoon, with shallow water areas and mudflats had a high diversity of different habitats ranging from reedbed, freshwater and brackish marsh, wet meadows and thermophile shrubs, all providing required life conditions for various bird species by supplying food and shelter through the year. In the period from 1979 to 2000, 200 bird species were recorded in Škocjanski zatok, 125 of them passing migrants and wintering birds and 75 breeders.

Back in the 1980s, the Municipality of Koper intended to fill up the brackish lagoon completely for purposes of developing an industrial and commercial zone. Consequently, more than 280,000 cubic metres of mud were poured in the lagoon, organic waste disposed of and both rivers flowing into the lagoon diverted, which caused severe degradation of the system. Conditions were worst at the beginning of the 1990s, but have been improving since then.

In 1993, DOPPS - BirdLife Slovenia initiated a public campaign to protect the area. After five years of dedicated and persistent work by our staff and volunteers and invaluable support from BirdLife Partners, the area was officially declared a Nature Reserve by Slovene government in 1998. At the end of 1999, DOPPS obtained a management licence over the Reserve. Legal protection put a stop to degradation and now the challenge is to restore the wetland to conditions prior to degradation and to ensure its long-term protection.

The Programme of Protection and Development of the Škocjanski zatok Nature Reserve, adopted by the Slovenian government in 1999 sets a framework for the restoration and management of the Reserve. The following pages briefly present the future organisation of Škocjanski zatok after completed restoration, which is primarily aimed at:

- the conservation of endangered plant and animal species,
- the conservation of and increase in biodiversity,
- recreation and education of the inhabitants,
- education and awareness-building in school children and students, and
- research work.

The people involved in the project report that the life in the Reserve is more active every day. Birds are coming back and so is our optimism that in a few years, Škocjanski zatok will become what it once used to be - the green heart of the Slovenian coast.
Freshwater part of Škocjanski zatok Nature Reserve:

In the area of Bertoška bonifika a freshwater marsh will be created as a substitute for the degraded wetland areas which had until 1990 occupied the Badaševica river outlet into the lagoon of Škocjanski zatok. Consequently, a large number of plant and animal species will again be able to live and breed in the area.

The Škocjanski zatok Nature Reserve consists of two parts, Bertoška bonifika as the freshwater part of the Reserve, and the brackish lagoon with its shallows and mudflats.

During migration periods, periodically flooded wet meadows of the southern part of Bertoška bonifika shall provide good feeding sites and resting grounds for various bird species. In spring months, however, Black-winged Stilts Himantopus himantopus and some other species are expected to nest on numerous grassy islets.

After the nesting period is over these meadows are mowed and grazing in the area controlled. Presence of the Istrian cattle breed 'boškarin' and the Istrian donkeys will bring back the memories of the times when cohabitation of man and animal was an everyday necessity.
Towards the northern part of Bertoška bonifika wet meadows shall be replaced by areas of deep water. With reedbed-overgrown edges, this area will provide a shelter for various species of rails and grebes. Shore vegetation will also welcome the Little Bittern *Ixobrychus minutus* which years ago came to symbolize the endangered state of the Škocjanski zatok.

In areas of deep water wooded islets will be formed to provide resting grounds and potential nesting islets for various heron species. These islets are also quite popular with numerous birds of prey, which will create quite an attraction for the visitors to the Reserve.

The Škocjanski zatok Nature Reserve shall be open to public. A circular interpretation path shall take visitors along the shores of the freshwater marsh of Bertoška bonifika. Starting at the visitor centre, the path shall run through the reedbed of the northern part of the area, approach the brackish part of the Reserve on the western part between Bertoška bonifika and the lagoon, and move on past the observatory across the wet meadows at the left channel of the Ržana river - Ara up to the easternmost point of Bertoška bonifika where the trail shall turn back towards the visitor centre. At some key locations within the Reserve there will be well-equipped observation sites where visitors shall be able to obtain some information about the plants and animals and have a short rest.
The visitor centre and the observatory shall both provide the visitors with additional information on the Reserve and invite them to learn more on the plant and animal life of Mediterranean wetlands. From the observatory the visitors will be able to admire the underwater world of the freshwater marsh.

**Brackish part of the Škocjanski zatok Nature Reserve:**
The most demanding task of the restoration project is the enhancement and rehabilitation of the brackish lagoon which has largely lost its original character due to years of filling with mud. Re-establishment of the inflow of the Rižana and Badaševica rivers and the deepening of the central part of the lagoon will cause both the volume of the lagoon and the freshwater inflow to increase, thus enabling fresh and saline waters in the lagoon to mix and, at the same time, create favourable living conditions for animals and plants alike.

In winter months the extensive unfrozen water surface re-establishes itself as one of the most important wintering grounds for aquatic birds in Slovenia. Varying water depths of the lagoon, shallows and mudflats are of crucial importance to waders, which stop in Škocjanski zatok on their
migratory routes. Flocks of sandpipers, stints and curlews search for food in the shallows, gathering strength to continue on their journey.

In the lagoon a series of small nesting islets shall be formed and intended primarily for birds nesting in colonies. Judging from our experience, Škocjanski zatok shall welcome first nesting couples of gulls and terns in the first season after the completion of the project.

An outstanding feature of Škocjanski zatok is mudflats and half-dry ground with halophytes - seashore plants, well-adapted to surviving in saline habitats. The Nature Reserve territory supports the associations of halophyte annuals such as glasswort *Salicornia europaea* and halophyte perennials such as *Arthrocnemum fruticosum* and sea lavender *Limonium angustifolium* as well as Mediterranean salt meadows. Owing to exceptional rarity of similar growth sites in Slovenia, the deepening of the lagoon shall be accompanied by an increase in and a reformation of mudflats and the saline ground which will promptly be settled by various halophyte species.
DOPPS - BirdLife Slovenia wishes to take this opportunity to thank all the people who have in any way contributed to the protection and conservation of Škocjanski zatok, and to those people in particular who with their everyday work, ideas, advice and friendly support help DOPPS to meet the set objectives and implement the restoration and protection of the area.

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and on the web site: http://www.skocjanski-zatok.org

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