

Report No. 47

Ramsar Advisory Mission

Srebarna Nature Reserve, Ramsar and World Heritage Site

Bulgaria, 1 - 4 October 2001

A mission jointly organized by the World Heritage Convention, IUCN-the World Conservation Union, and the Bureau of the Ramsar Convention on Wetlands

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Introduction

- 1. The Ramsar Convention gives special attention to assisting Contracting Parties in the management and conservation of listed sites whose ecological character is changing or likely to change as a result of technological development, pollution or other human interference. This is carried out through the Ramsar Advisory Missions (RAM), a technical assistance mechanism formally adopted by Recommendation 4.7 of the 1990 Conference of the Contracting Parties (formerly known as the Monitoring Procedure and the Management Guidance Procedure).
- 2. The World Heritage Committee, at its 24th session from 27 November to 2 December 2000, after receipt of the "Srebarna Biosphere Reserve Report 2000" by the Bulgarian Minister of Environment and Water at the Unesco World Heritage Centre, thanked and commended Bulgaria for submitting a comprehensive report and for its efforts to fully rehabilitate the site. The Committee requested the Centre and IUCN to cooperate with the Ramsar Convention Bureau and other suitable partners to field a mission to the site to undertake a thorough evaluation of the successes of the rehabilitation efforts reported and their sustainability.
- 3. On 30 July 2001, the Director of the National Nature Protection Service (NNPS) of the Bulgarian Ministry of Environment and Water (MoEW) invited the World Heritage Centre, IUCN and the Ramsar Bureau for a joint mission to visit Srebarna Managed Nature Reserve for the period end of September, beginning of October 2001.

Srebarna Ramsar Site – Recent History

- 4. Bordering Romania, the Srebarna wetland includes a freshwater lake on the Danube river floodplain with extensive reedbeds and several scarce marshland plants. It is an important area for numerous species of breeding, wintering and staging waterbirds, including important numbers of geese and ducks, and breeding pairs of globally threatened Dalmatian pelicans, ferruginous ducks, pygmy cormorants and corncrakes. The site was designated as a waterbird reserve in 1942, followed by the declaration of the Nature Reserve in 1948. The Nature Reserve was listed on 24 September 1975 as a Wetland of International Importance (600 ha, Ramsar Site no. 64) when Bulgaria joined the Ramsar Convention. The Nature Reserve was later expanded (to 902 ha) and became in 1977 also a Unesco Biosphere Reserve. In 1983, the site was listed additionally under Unesco's World Heritage Convention (site no. 219). In 1994, the Reserve area was enlarged by a buffer zone of 543 ha. A natural history museum, the building of the reserve management authority, and a field station of the Central Laboratory of General Ecology (CLGE) of the Bulgarian Academy of Sciences are all located next to each other bordering the site, at the edge of Srebarna village.
- 5. During the period between 1985 and 1990, the adverse effects of a protracted draught on the Balkan peninsula and the cumulative effects of historical and recent regional and international anthropogenic influences reached more readily observable proportions in lake Srebarna. The combination of the latter causal agents with regulation of annual Danube flood crests by the Romanian Iron Gates control structure, the previous elimination (1979) of local traditional land-use practices (reed harvest and burning), the lack of adequate buffer zone management with introduction of more modern agricultural practices (chemical fertilizers and insecticides) and increased domestic animal populations into the surrounding arable drainage basin accelerated the decline of the ecological values of Srebarna Reserve.
- 6. Both ground water seepage and surface runoff into lake Srebarna had been reduced by wells and tributary control structures. Among the cumulative net adverse results, documented in ongoing lake monitoring studies by the Bulgarian Academy of Science, were :
 - increased levels of dissolved nitrogen and phosphate ;
 - decreased dissolved oxygen levels ;
 - increased sedimentation and turbidity;
 - a decreased water column and lake volume ;
 - initially increased primary productivity, and
 - a subsequent simplification in the structure of phytoplankton populations ;
 - an accelerated transition from lake to marsh (hyper-eutrophication);
 - the decline of biodiversity (particularly fish species);
 - diminished utilization of the area by rare and threatened resident and migratory bird species, and
 - reduced nesting success ratios of key breeding bird species determined to be of World Heritage significance.

Without the periodic fluctuation in water level and a flushing action by Danube flooding, previously floating reed beds ("kotchky") coalesced and stabilized leaving nesting colonies more vulnerable to disturbance and predation .

- 7. With a letter of 1 July 1991, the Ministry of Environment and Water requested the Ramsar Bureau to undertake an advisory mission, given the following ecological changes occurring at the Srebarna site:
 - an important reduction in the lake water level, due to limited and irregular inflow;
 - the deterioration of the water quality in the lake (eutrophication) as a consequence of algal growth,
 - followed by large scale die-offs of submerged vegetation and water invertebrates, both important food sources for waterbirds, and
 - an extension of the floating reedbeds (*Phragmites*), easing access to the waterbird breeding sites to predators such as jackals, foxes, racoons, wild cats and boars.
- 8. Subsequently, a Ramsar Advisory Mission (RAM) took place from 30 March to 2 April 1992 (Report no. 27 available at www.ramsar.org/ram_rpt_28f.htm in French) addressing the issues of the erosion of the Danube river bed affecting Srebarna lake negatively, the severe nutrient enrichment in the lake, the accelerated vegetation succession, and the construction of a dike between the Danube and Srebarna lake.
- 9. The 1992 Ramsar Advisory Mission concluded that:
 - a water link between Srebarna lake and the Danube should be established, preceded by a geo-morphological and hydrological study;
 - the conservation and management of Srebarna Reserve needs to be planned at catchment level, notably also by taking into account water inflows, above and under ground, from the karst basin outside the Danube floodplain, and that
 - the local population of Srebarna village, including the different stakeholders, needs to be integrated into the management planning process, to achieve wise use of Srebarna's wetland resources.
- 10. Based on the findings of this first RAM to Srebarna, the site was listed in the Montreux Record of Ramsar Sites where changes in ecological character have occurred, are occurring or are likely to occur on 16 June 1993, at the request of Bulgaria (Recommendation 4.8).
- 11. The 16th session of the World Heritage Committee in 1992 inscribed Srebarna on the List of World Heritage in Danger, based on information by IUCN in 1991 of the situation at Srebarna, and recognizing the rapid accumulation of deteriorating ecological indices and diminishing values. This was done in consultation with the Bulgarian authorities, and after consideration of removing Srebarna from the World Heritage List and while awaiting the results of further studies.
- 12. Subsequently, the Bulgarian authorities reported on substantial improvements of the ecological situation at the site: *a*) in 1994, a permanent Reserve Administration had been established, *b*) in 1995, the successful completion of reconnecting the Danube and Srebarna lake had been achieved with bilateral assistance (USAID) for the first time since 1949 and was operational with control structures, and *c*) intensive monitoring studies were ongoing. The World Heritage Committee examined in 1996 a monitoring report prepared

by the Ramsar Bureau, indicating that the new canal and water control structures were operational, allowing Danube water into Srebarna lake, and that the Dalmatian pelican nesting colony had been re-established at higher levels than before inscription of the site on the Ramsar and World Heritage lists. In 1997, the Ramsar Standing Committee allocated a sum from the Ramsar Small Grants Fund (SGF) to the development of a management plan (completed in 2000). By 1 September 1998, the Minister of Environment and Water prepared a substantive "Threat Mitigation Status Report 1992-1998".

- 13. A second mission, to verify the results of the measures undertaken to mitigate threats to the integrity of Srebarna was undertaken 1-6 October 1998. This time, officially as a joint mission of the World Heritage Centre, IUCN and the Ramsar Bureau. It concluded in its report to the 22nd session of the World Heritage Committee, that:
 - the significant restorative efforts of the Bulgarian authorities resulted in a rather remarkable ecological recovery of this Ramsar and World Heritage Site, as established and defined at the time of inscription; and that
 - the ecological recovery period has been relatively short and several key statutory and administrative actions, including the preparation of the Srebarna Nature Reserve Management Plan clearly affecting the long term integrity of the site, were pending at the time of the Mission.
- 14. For these reasons, the mission team was of the opinion that the Srebarna Nature Reserve should remain on the Montreux Record and World Heritage in Danger List, until at least the year 2000, when the ecological recovery trend and administrative accomplishments may be evaluated, and a determination made as to whether threat mitigation has been sustained, management and action plans have been developed and effectively implemented, site integrity strengthened by management intervention, and World Heritage and Ramsar values satisfactorily restored on a sustained basis, or not. Given the relatively small size of the Srebarna Nature Reserve, demonstrated effective collaboration in effective buffer zone management will be of particular importance.
- 15. On 4 October 2000, the Bulgarian Ministry of Environment and Water submitted the final report on the SGF 1997 project "Development and Implementation of a Management Plan for lake Srebarna Ramsar Site", thus successfully fulfilling the objectives of this project. The most significant parts of the Plan were discussed with the stakeholders and their recommendations incorporated in the final version, including 22 working programmes and 77 projects (17 of them of high priority) to achieve the main objectives presented in the Plan. The document "Management Plan of the Srebarna Biosphere Reserve, Edition 2000", prepared by the Bulgarian Academy of Sciences (CLGE), is accessible at www.ramsar.org/wurc_mgtplan_bulgaria1a.htm . This was elaborated by eminent Bulgarian experts, based on a comprehensive monitoring programme of physical, chemical and biological features. They made information on lake Srebarna and the SGF project available at www.ecolab.bas.bg/srebarna/.
- 16. During the 25th session of the World Heritage Bureau in June 2001, additional consideration was given to a review of the conservation status of Srebarna reserve. The Bureau once again commended Bulgaria for preparation of a site management plan, invited Bulgaria's consideration of the management plan recommendations, including closer collaboration with Romania, and further encouraged the execution of the

anticipated World Heritage Centre-IUCN-Ramsar Mission in autumn 2001 to assist the 25th session of the World Heritage Committee's determination with regard to removing Srebarna from the List of World Heritage in Danger in December 2001.

Issues considered by the Ramsar Advisory Mission

- 17. The joint World Heritage Centre, IUCN, and Ramsar Bureau mission reviewed the sustainability of the rehabilitation efforts undertaken at Srebarna World Heritage and Ramsar Site, and determined whether the 25th session of the World Heritage Committee should consider removing Srebarna from the List of World Heritage Sites in Danger, and whether the Bulgarian authorities should be encouraged to start the procedure to remove Srebarna Ramsar Site from the Montreux Record.
- 18. In addition, the Mission reviewed plans and processes for:
 - the preparation of a project to establish a bilateral Ramsar Site with Romania to promote transboundary cooperation;
 - the long term water management regimes, links between the water flows between the Danube and Srebarna lake,
 - specific management needs in the short to medium term, including technical and financial support from external sources, and
 - indicators for the systematic monitoring of the state of conservation of the site.

Protected area legislation, institutional framework and reserve management

- 19. Conservation legislation was undergoing significant revision during the mission in 1998. An analysis of the statutory revisions for conservation in Bulgaria (Protected Areas Act No. 802-01-16) was provided in detail to the World Heritage Committee session in 1998. In summary, the statutory framework for conservation in Bulgaria was viewed as having been strengthened and harmonized with international standards including IUCN categories and relevant EU Directives. Although not directly conforming to IUCN categories, the conservation legislation constructively allowed for the classification of the Srebarna Nature Reserve as a "Maintained" Reserve. As incorporated into the Srebarna Management Plan, this new classification would allow for constructive management interventions such as to reduce the excess reed (*Phragmites*) beds, bottom sediments and other measures which may be necessary to maintain the ecosystem values and prenomination conditions.
- 20. Currently the National Nature Protection Service of MoEW is the responsible management authority for Srebarna Reserve. Management direction is provided through the well-equipped MoEW Regional Inspectorate located in the neighbouring district central town of Ruse. One staff member of the Regional Inspectorate is assigned responsibilities for biodiversity. The Bulgarian Academy of Sciences (CLGE) additionally provides ongoing monitoring and data gathering services for the management of Srebarna Nature Reserve.
- 21. The Central Laboratory of General Ecology of the Bulgarian Academy of Sciences, assisted by NGOs and volunteers, continues to gather data and to provide monitoring and

data interpretation services for the nature reserve. The recently completed Management Plan document for the site is considered by the Ramsar Bureau to be an outstanding and exemplary model wetland management plan with potential application to other sites in Europe.

- 22. During the mission in October 2001, the MoEW has noted that minor, but necessary changes to the present plan are required for it to conform to the recent Bulgarian Conservation Law. These minor changes were subsequently completed and the plan officially accepted by the Minister of Environment and Waters on 11 December 2001. In the interim, the site management staff and the scientists of the Academy continued to implement the Management Plan with assistance from NGOs, volunteers and nearby communities.
- 23. At this time, no Reserve staff on-site are assigned the responsibility for site "presentation" under the terms of the World Heritage Convention. The functions of communication, education and increasing public awareness (CEPA), according to Ramsar's Outreach Programme, are inadequately addressed at the Biosphere Reserve Museum adjacent to the MoEW Reserve headquarters, under the direction of the regional government in Silistra and Srebarna municipality.
- 24. Three uniformed, armed guards are employed by MoEW to provide law enforcement within the Reserve. According to different observers, poaching (mainly illegal fishing) remains a problem, however, since the employment of the guards, some poachers have been apprehended and their equipment confiscated. Additional radio equipment could enhance enforcement efficiency and effectiveness.
- 25. International cooperation has been encouraged particularly with adjacent Romania for collaborative management and protection efforts on select migratory species sharing nesting and feeding areas. Further international collaboration on the management of the bird populations and natural habitats on a Danube regional basis has been encouraged by the World Heritage Committee and the Ramsar Bureau and is anticipated through regional agreements and on-going technical and management discussions, as part of the Lower Green Danube Corridor agreement signed by Bulgaria, Romania, Ukraine and the Republic of Moldova in June 2000.
- 26. Additional collaboration and support is provided to the Srebarna Nature Reserve and the Regional Inspectorate of MoEW by the Regional Governor and other elected officials from nearby communities including Srebarna and Silistra, as well as from NGOs, notably Le Balkan (monitoring of the Dalmatian pelican colony) and the Bulgarian Bird Protection Society (BSPB/BirdLife Bulgaria) (regular waterbird monitoring, reserve management workshop in 1999, etc.).

Assessment of the state of conservation of Srebarna Reserve

27. The Bulgarian Academy of Sciences Central Laboratory of General Ecology provided the data and information during the Mission on which the following summary conclusions have been made:

- 28. **Hydrology**: The continued successful operation of the Danube connecting canal and sluice gates installed with the assistance of bilateral aid from the United States in 1992 has steadily increased the water volume in lake Srebarna. This resulted in an increasingly positive condition affecting all other ecological parameters. Between 1998 and 1999, the lake water level increased from 11.91 m to 13.73 m. The height of the water column changed from 1.10m to 2.9m at a prescribed measuring point increasing lake size from between 2.334 km² to 7.1 km² with a correlating reduction of *Phragmites* reedbeds which was clearly visible during the mission. The resulting enlarged open-water provided increased nesting protection and access to food supply for key fish-feeding bird species.
- 29. **Nitrogen and phosphorous conditions**: One of the main problems with the hypereutrophication of lake Srebarna was the influx of nutrients (nitrogen, phosphorous and soil sediments) from crop fields on the surrounding catchment area and drainage slopes. An abandoned vineyard to the west of the lake appears to be a source of high erosion and subsequent accretion of bottom sediments. Continued stabilization of surrounding slopes would be advantageous. However, it is estimated there has been a five-fold decrease in the hyper-enriching levels of nitrogen and phosphorous since the 1998 Danube river flushing.
- 30. Water quality: It is noted that at present lake Srebarna exhibits a decrease in mineralization and a recovery of the biocarbonate water status existing around the 1975 Ramsar inscription. Of critical importance, it is noted that there was no recent depletion of oxygen concentrations related to eutrophication in the water column, and primary productivity is within normal and expected limits. The lake exhibits the anticipated water quality characteristics for a body of water at the current normal stage of trophic progression. There is no reason for concern from pollution from heavy metals (Cu, Pb, Cd, Fe, etc.) or pesticides and PCBs.
- 31. **Phytoplankton**: Less satisfactory sampling and monitoring of phytoplankton, only at the lake surface, not adequately reflecting the conditions in the water column, has taken place in the interim period of 1998-2001. Parameters such as Secchi depth, Chlorophyll A and primary production indicate a transition from a hypertrophic to a stable eutrophic state. Further phytoplankton sampling and evaluations are required.
- 32. **Zooplankton**: In contrast to the phytoplankton sampling, the zooplankton monitoring has intensified since the last Mission in 1998. Additional population fluctuations have resulted from significant additions of Danube water in 1998-1999, as expected. It is noted that several key genera and species of zooplankton (such as *Cladocera*), missing or found only scarcely before, recovered since 1999. The data show anticipated seasonal curves, typical for this type of lake and state of condition. Data on zooplankton community development show a stabilisation of the conditions in the main water body. All this may positively influence populations of predatory fish and fish-eating birds.
- 33. **Macro-zoobenthos**: As a result of continuing investigations through 1999, 34 out of 74 species were newly recorded. A greater diversity and quantity of species are located in the communities at the edge of the reedbeds of the lake. Data evaluation appears to indicate a more stable lake condition than before 1994-1995. Since that time, it would appear that the lake bottom invertebrate fauna communities are recovering, showing the expected seasonal species diversity. Since 1997, a permanent trend of increasing abundance was detected.

- 34. **Fish**: During investigations between 1998 and 2001, 22 species of fish were found in lake Srebarna, all representatives of the Danube fauna. Six species are protected under the Berne Convention and may require more specific management measures. With the exception of the asp (*Aspius aspius*), populations of rare or endangered fish are considered stable. Of the species found in the lake, 13 are potentially subject to fishing, although the populations of the most valuable species, except those of pike (*Esox lucius*) and asp, are small and unstable.
- 35. **Avifauna**: Breeding populations are fully recovered from the collapse in the early 1990s. As previously noted, the population of Dalmatian pelican breeding pairs at 128 is now the highest on record (significantly above 1983 levels and verified by the NGO publication "Le Balkan"), over 300 pairs of pigmy cormorants nested in the lake in 2001 and the heron colony has fully recovered. Additionally, it is noted that both the Dalmatian pelicans and pigmy cormorants fed predominantly in lake Srebarna and did not feed in Romanian lakes as on previous occasions.
- 36. Ecological character: The construction of dikes between the Danube and lake Srebarna in the late 1940s precluded the natural perpetuation of the seasonal ebb and flow of river flood waters into the lake resulting in a condition of accelerated eutrophication. Ecological conditions in lake Srebarna deteriorated through the early 1990s when in response to the inscription of Srebarna Nature Reserve on the List of World Heritage in Danger and Montreux Record, the construction of sluice gates made it possible to regulate, capture and retain Danube flood waters in lake Srebarna. Since that time, ecological conditions have gradually improved to equal or exceed on a sustained basis those basic conditions existing at the time of Ramsar and World Heritage nomination.
- 37. **Invasive species**: However, additional vegetative changes in the catchment area surrounding lake Srebarna will require on-going monitoring. With the abandonment of the vineyard and reduction of agricultural use within the lake drainage, non-native species (including the pine *Pinus nigra*, hybrid poplars, common gloxinia, *Eleagnus angustifolia*, and black locust) have spread into the landscape and may require management attention in the future.
- 38. Lake bottom restoration: The necessity to remove mechanically accumulated bottom sediments in the lake is a management issue that has been outlined in the management plan. However, aspects of technical feasibility, ecological side-effects and financial and technical support (also from outside Bulgaria) have not yet been conclusively addressed nor solved.

Conclusions

- 39. Based on observations during the visit and interpretation of the information and data provided to the mission, it appears that there is a stable and sustained trend towards improvement of the ecological character and key indices of the Srebarna Nature Reserve. A continuation of the monitoring programme will be necessary to guide the incipient and ongoing implementation of the Srebarna Management Plan.
- 40. As a priority measure, the mission proposed to the World Heritage Committee to release emergency funds (estimated at 11,000 USD) for the purchase of a portable electricity

generator, and the re-installation of the existing electrical motors for the rapid control of the sluice gates to allow for maximum flow and retention of rising Danube river water into Srebarna Nature Reserve, and/or rapid closure of the sluice gates in case of emergency conditions, such as up-stream chemical spills into the Danube.

- 41. A reasonable effort should be continued to collaborate to a greater extent with neighbouring Romania to strengthen World Heritage and Ramsar regional conservation efforts for the Lower Green Danube Corridor and its floodplains.
- 42. It is concluded that Bulgaria has demonstrated the determination, legislative framework, scientific and management capacity and public support to achieve and maintain the wetland values at the levels, or exceeding the levels determined at the time of site inscription on the Ramsar and World Heritage lists. The mission therefore commends the Bulgarian authorities for their dedicated, determined and successful efforts to improve the Srebarna Nature Reserve conditions.
- 43. The Ramsar Bureau suggests to begin the procedure to remove the Srebarna Reserve Ramsar Site from the Montreux Record. This would hopefully come to a conclusion until the next meeting of the Conference of the Contracting Parties, COP8, to be held in November 2002 in Valencia, Spain. To this end, additional information should be provided by the Bulgarian authorities prior to removal, as detailed in paragraphs 44-51.

Recommendations

- 44. In accordance with Resolution VI.1 providing "Working definitions of ecological character, guidelines for describing and maintaining the ecological character of listed sites, and guidelines for operation of the Montreux Record", the Ramsar Advisory Mission recommends the following steps to the Bulgarian authorities:
- 45. To submit an updated map on the Srebarna Ramsar Site to the Ramsar Bureau, to clarify the extent of the Ramsar Site, the Biosphere Reserve, the Maintained Nature Reserve and its buffer zone, the World Heritage site, and any other specifically designated zone, and to provide minor additional information in completion of the updated Information Sheet on Ramsar Wetlands (RIS) prepared on 10 September 2001, following the "Explanatory Note and Guidelines for the Information Sheet on Ramsar Wetlands", available from the Ramsar Bureau, or at www.ramsar.org/index_key_docs.htm#ris.
- 46. To provide the Ramsar Bureau with additional information for assessing the possible removal of a listed site from the Montreux Record, according to the "Montreux Record Questionnaire" appended to the Guidelines for Operation of the Montreux Record (Resolution VI.1, cf. Ramsar Handbook 8), notably on:
 - the success of ameliorative, restoration or maintenance measures;
 - proposed monitoring and assessment procedures;
 - the extent to which the ecological character, benefits and values of the site have been restored or maintained (providing details);
 - the rationale for removing the site from the Montreux Record (refering to Guidelines for Operation of the Montreux Record); and
 - a list of further attachments (if applicable).

- 47. To submit additional information confirming the legal adoption of the "Management Plan of the Srebarna Bioshpere Reserve" through the inter-ministerial procedure, and the allocation of means from the Environmental Fund for its implementation. It is furthermore suggested that the Srebarna Reserve will be clearly sign-posted, including a notification and logos of all its international designations.
- 48. To submit additional information and a clarification on the respective and complementary roles, structure and functions of the Srebarna Reserve Management Authority of the Ministry of Environment and Waters, the Biosphere Reserve Museum, its staff and educational role, the Academy of Sciences, and other involved institutions, notably NGOs at local, regional and national scale. This information should also clarify the respective roles of the NNPS of the MoEW, the Ministry's Regional Inspectorate in Ruse and the regional, provincial and local Authorities in Ruse, Silistra and Srebarna.
- 49. To prepare a communication, education and public awareness (CEPA) work programme for Srebarna Reserve in its ecosystem and socio-economical context. Such a document should clearly identify the local and national needs for CEPA activities, outline the priority actions to prepare and undertake, identify the key partners and clients to be involved, as well as clarify the financial requirements.
- 50. To provide updated information about the bilateral cooperation with the Romanian authorities in light of the new strategy for the Danube islands and the protection of the Danube natural floodplain forests in the Romanian-Bulgarian border zone close to Srebarna Reserve and along the Lower Green Danube Corridor, notably also on the fate of the project proposal for a "Transboundary Wetland Park Bulgaria-Romania".
- 51. To provide additional information on the approach to be taken with regard to reedbed management in the medium and long term, including a reflection on the need, timing, and extent of possible dredging interventions to remove unwanted lake sediments. This issue is addressed in the Management Plan document, however without going into operational details. It is suggested that this additional information also clearly points out the advantages and disadvantages of different intervention methods, including the option of no intervention at all.

Acknowledgements

The World Heritage Centre of Unesco organized the Mission in conjunction with IUCN, the Ramsar Bureau, and the Ministry of Environment and Water in Sofia. The National Nature Protection Service of the MoEW arranged meetings and logistics necessary to complete the objectives of the Mission. The Director of NNPS, Mr Hristo Bojinov, kindly assigned Mr Valeri Georgiev to accompany the Mission team and serve as interpreter. Prof. Georgi Hiebaum, Dr Taniu Michev, and their colleagues from the Central Laboratory for General Ecology of the Bulgarian Academy of Sciences, provided up-dated monitoring data on the ecological conditions in the Ramsar Site "Srebarna Maintained Nature Reserve (1990–2001)". NGO concurrence with specific aspects of the ecological data were provided by Mr Pavel Simeonov of "Le Balkan" and Ms Irina Kostadinova of the Bulgarian Society for Bird Protection (Birdlife Bulgaria). We thank especially the NNPS and Valeri Georgiev for the

smooth organisation of the mission logistics, from Sofia to Ruse, Silistra, Srebarna and back to Sofia.

Itinerary and people contacted

Monday, 1 October

Arrival of Tobias Salathé, met at the airport by Hristo Bojinov, Director of the National Nature Protection Service (NNPS) in the Ministry of the Environment and Waters (MoEW), briefing him on the mission programme. In the evening, arrival at Hotel Rodina of Robert Milne, expert for the World Heritage Committee. T. Salathé is representing both, the Ramsar Bureau and IUCN.

Tuesday, 2 October

Drive with Valeri Georgiev, focal point of NNPS, to Ruse where we meet in the afternoon with the Director of the Regional Institute of the MoEW, Todor Moskov, and his biodiversity inspector, Svetlana Ivanova. Visit of the laboratory facilities for air, water, soil, and radiation analyses. Overnight in Ruse.

Wednesday, 3 October

Drive to Silistra to brief the Province Governor, Petko Dobrev, about the aims of the mission. He assures us of his interest in the Srebarna Reserve and its management.

Site visit and discussions with the Director of the Nature Reserve, Nikolai Lalev, and his staff. Georgi Hiebaum and Taniu Michev of the Central Laboratory of General Ecology of the Bulgarian Academy of Sciences explain the current state of key ecological parameters and the monitoring programme put in place.

Visit of the sluice gates at the canal linking Srebarna lake with the Danube, followed by a visit of the artificial nesting platforms of the Dalmatian pelican colony, constructed by the conservation NGO "Le Balkan" with financial support from Swarosvki Ltd. (Austria).

Return to Silistra for a press conference in the Governor's office with about 15 journalists in attendance. In the evening return travel to Sofia.

Thursday, 4 October

Discussion of all aspects related to the mission in the MoEW, chaired by Michael Michailov, state inspector of the NNPS - with the attendance of Valeri Georgiev (NNPS), the Director of the Central Laboratory of General Ecology, Nesko Chipev, with Georgi Hiebaum and Taniu Michev, Pavel Simeonov of Le Balkan, and Irina Kostadinova of the Bulgarian Society for Bird Protection-BirdLife Bulgaria.

Short presentation of the preliminary mission results by the participants to Deputy Minister Krasimir Dukov of the MoEW.

Then transfer to the airport and return of international experts.