

Ramsar Information Sheet

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1. Date this sheet was completed: 01.06.1997

2. Country: Estonia

3. Name of wetland: **Muraka Nature Reserve**
(in Estonian: *Muraka Looduskaitseala*)

4. Geographical co-ordinates: 59°08'N 27°06'E

5. Altitude: 51-57 m above sea level

6. Area: 12,400 ha

7. Overview

Large flat wilderness area: integral complex of three bogs (+ fens and transition bogs) surrounded by extensive forest.

8. Wetland type: M O Tp U Xf Xp

9. Ramsar Criteria: 1a, 2a, 2b

10. Map of site included: Yes

11. Name and address of compiler:

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12. Justification of criteria selected under point 9:

1a - it is a particularly good representative example of a natural or near-natural wetland, characteristic of the appropriate biogeographical region

2a - it supports an appreciable assemblage of rare, vulnerable or endangered species or subspecies of plant or animal, or an appreciable number of individuals of any one or more of these species

2b - it is of special value for maintaining the genetic and ecological diversity of a region because of the quality and peculiarities of its flora and fauna

13. General location:

Ida-Viru County; 30 km south-west from Kohtla-Järve (69,000 inhabitants).

14. Physical features:

Natural origin. Ordovician limestone bedrock, covered by moraine alluvial and lake sediments, and by peat deposition (min. 1-2 m, average 5-7 m). Lower parts of bogs partly overflowed in April and in October - November. Mean annual precipitation 650 mm (of these, $\frac{3}{4}$ during warm period). One relict lake (dystrophic, 30 ha); bog-pools (depth 1-3 m) cover 10-40% of bog areas. Some temporary streams between different parts of bogs. Water originates mostly from precipitation.

15. Hydrological values:

Important role in the recharge and discharge of groundwater, and maintenance of water quality. One of few extensive wilderness areas still surviving in north-eastern Estonia, i.e. in the main industrial and most polluted part of the republic. Muraka Mire together with surrounding areas acts as a buffer zone between the oil-shale basin and agricultural areas.

16. Ecological features:

Peatland area consists of 60% bogs (mainly open, grass-bogs and dwarf-shrub bogs: *Eriophorum* sp., *Ledum palustre*, *Calluna vulgaris*, *Chamaedaphne calyculata*, *Carex pauciflora*, *Sphagnum* spp. etc.);

partly pine-bogs), 25% fens (*Carex* spp., *Phragmites communis*, *Menyanthes trifoliata*, *Equisetum* sp. etc.), 15% transition bogs. Primeval forests occur among surrounding forests (mainly boreal, sandy heath and bog types).

17. Noteworthy flora:

Characteristic flora of continental bog communities, additionally elements from bogs of maritime type (e.g. *Trichophorum caespitosum*). Rarities for Estonia are represented by e.g. *Carex pauciflora*. Several rare plants species grow on mineral “bog-islands” and in forests of the area: *Epipogium aphyllum*, *Cardamine bulbifera*, *Circaea alpina*, as well as rare species of fungi.

18. Noteworthy fauna:

The species diversity of the Muraka is one of the highest of mires/bogs in Estonia.

Birds: Breeding bird fauna is represented with *Numenius phaeopus*, *Pluvialis apricaria* (both more than 100 pairs), *Grus grus* (> 14 pairs), *Tringa nebularia* (> 10 pairs), *Limosa limosa* (10 pairs), *Lagopus lagopus*, *Calidris alpina schinzii*, *Lymnocyptes minimus* (one of the few breeding places in Estonia), *Bubo bubo*, *Aquila chrysaetos* (at least 1 pair), *Aquila pomarina*, *Falco peregrinus* (one of the few places in Estonia where regularly seen), *Falco columbarius*, *Circus cyaneus*, *Circus pygargus*, *Tetrao urogallus*, etc.

Mammals: Mammals live mainly in marginal parts of the area (incl. *Ursus arctos*, *Canis lupus*, *Alces alces*, *Pteromys volans*, *Lynx lynx*, etc.).

19. Social and cultural values:

Important area for seasonal traditional berry-picking, potentially also for small-scale recreation (nature tourism).

20. Land tenure/ownership of:

- a) site: 100% state-owned land.
- b) surrounding area: State and private land.

21. Current land use/principal human activities:

- a) site: No inhabitants; Mires are used for picking of berries in autumn (*Oxycoccus palustris*) and in summer (*Rubus chamaemorus*), for small-scale hiking and hunting.
- b) Surroundings/catchment: agriculture, forestry, oil-shale mining (in 15 km and further).

22. Factors adversely affecting the site's ecological character, including changes in land use and development projects:

- a) site: Possible changes in normal paludification processes, due to alkalic pollution from electric power stations within 40-60 km (near Narva); pollution from oil-shale chemical industry (within 30 km, in Kohtla-Järve and Kiviõli); a minor threat (at the level of proposals by the oil-shale industry) of using Miraka-mire for oil-shale mining in future.
- b) Surroundings/catchment: Changes in the hydrological regime influenced by neighbouring oil-shale mines; increase of pollution by oil-shale mining and industry.

23. Conservation measures taken:

Ratva Bog Strict Nature Reserve was established on 11 May 1938. The Muraka Botanical-Zoological Reserve was established on 11 July 1957 (8300 ha) and was enlarged to the Muraka Mire Reserve in 1981 (12,274 ha). In 1997, based on the Muraka Mire Reserve, Muraka Nature Reserve was founded (12,400 ha) and the new protection rules were approved (Estonian Governmental Regulation No. 43 of 25 Feb. 1997, published in Riigi Teataja I 1997, 19, 308). Amelioration, land improvement, peat digging and in most of the area forest management are prohibited.

24. Conservation measures proposed but not yet implemented:

According to Estonian Governmental Regulation No. 48 of 4 March 1997 the management plan has to be completed by 2002.

25. Current scientific and research facilities:

Study of the breeding bird community in June 1994.

26. Current conservation education:

No visitors centres, no booklets. In earlier years a former forester's cottage served as an overnighting place for hikers.

27. Current recreation and tourism:

Seasonally visited by berry-pickers. Small-scale hiking and hunting.

28. Jurisdiction:

Iisaku Commune, Tartu mnt 15, Iisaku, Ida-Viru County, EE2032

Maidla Commune, Savala, Ida-Viru County, EE2050

Mäetaguse Commune, Ida-Viru County, EE2031

Tudulinna Commune, Pargi 2, Tudulinna, Ida-Viru County, EE2052

Estonian Ministry of Environment, Department of Nature Conservation and Wildlife Management, Tompuiestee 24, EE0100, Tallinn, Estonia

29. Management authority:

Ida-Viru County Environmental Department. 15 Pargi Street, EE2020 Kohtla-Järve, Estonia

30. Bibliographical references:

Valk, U. 1988. Estonian Peatlands. Tallinn. 344 p. (in Estonian with English summary).

Kask, E. 1977. Tee vaikusesse. Muraka soostik. - Tallinn. Eesti Raamat, 63 lk.