# 29. Information Sheet on Ramsar Wetlands

*Categories approved by Recommendation 4.7 of the Conference of the Contracting Parties.*

NOTE: It is important that you read the accompanying *Explanatory Note and Guidelines* document before completing this form.

**1. Date this sheet was completed/updated:**
June 1997

**FOR OFFICE USE ONLY.**

DD MM YY

Designation date | Site Reference Number

**2. Country**: Russian Federation

**3. Name of wetland:** Parapolsky Dol

**4. Geographical coordinates:** 60°50'-63°27'N, 163°45'-167°50'E

**5. Altitude:** 50-80 m a.s.l. **6. Area:** 1,200,000 ha

**7. Overview:** The Parapolsky Dol is a representative example of an alas plain, with a great number of lakes, rivers and streams and tundra vegetation. The area lies at a crossroads on the migration routes of waterbirds breeding in Yakutia, the Chukotka Peninsular and the Penzhinsko-Parapolsky Dol itself, and wintering in China, Korea, Japan and other eastern Asiatic countries.

**8. Wetland Type** (please circle the applicable codes for wetland types as listed in Annex I of the *Explanatory Note and Guidelines* document.)

**marine-coastal:** A · B · C · D · E · F · G · H · I · J · K

**inland:** L · (M) · N · (O) · (P) · Q · R · Sp · Ss · (Tp) · Ts
(U) · Va · (Vt) · W · Xf · Xp · Y · Zg · Zk

**man-made:** 1 · 2 · 3 · 4 · 5 · 6 · 7 · 8 · 9

**Please now rank these wetland types by listing them from the most to the least dominant:** Vt,O,P,U,Tp,M.

**9. Ramsar Criteria:** (please circle the applicable criteria; see point 12, next page.)

(1a) · 1b · (1c) · 1d ³ 2a · (2b) · 2c · 2d ³ (3a) · (3b) · 3c ³ 4a · 4b

**Please specify the most significant criterion applicable to the site: 3a**

**10. Map of site included? Please tick *yes* √ -or- *no***
(Please refer to the *Explanatory Note and Guidelines* document for information regarding desirable map traits).

**11. Name and address of the compiler of this form:**
L.A.Anokhin: Koryak Regional Environmental Committee
Palana 684620, Russia
E.S.Gusakov: Central Research Laboratory, Hunting Management Office
Losinoostrovskaya Lesnaya Dacha-18, Moscow 129347, Russia

**12. Justification of the criteria selected under point 9, on previous page:** 3a - the wetland supports large populations of waterbirds.

**13. General location:** In northeastern Asia, Koryak Autonomous Area, 600 km of the town of Palana (regional centre). The site consists of two separate parts: Parapolsky Dol and Penzhinsky Dol.

**14. Physical features:** The site constitutes a part of the Penzhinsko-Anadyr depression, extended from the southwest to the northeast between the offsets of the Kolyma and Koryaksky uplands. The Penzhinsky-Parapolsky Dol is divided into two portions by the Penzhinsky ridge which is 5 to 600 m high. This plain is composed of alluvial and loess sediments. The main relief forms are lake basins, mounds and river valleys.

The climate is continental, with the mean July temperature of +14°C. The warm period, when the temperature is above zero, lasts for 62 days. Annual precipitation is 500-600 mm. The rivers and lakes freeze in October. The ice breaks up in late May-early June on the rivers, and in June on the lakes. The rivers are fed by snow melt and rain. The flood occurs in mid-June.

The hydrological regime of the thermokarst lakes is relatively stable. The level of water in the rivers depends on the amount of precipitation in summer. Lower places are covered by mires with mosses, ridges and cotton grasses. The soils are predominantly of the peat and peat-gley types. The water in the rivers and lakes is fresh and transparent (except during spring floods). The river beds are mainly shingle and sandy. The water in the small streams, going through the peat, becomes brown but still transparent.

The catchment area extends to the adjacent mountains, far beyond the site border.

**15. Hydrological values:** The wetlands of the Penzhinsky-Parapolsky Dol: peatlands, lakes and meandering rivers accumulate water in the periods of snow melting and rains. The large rivers of the region, gradually supplied by this water, support breeding populations of fish and remain navigable through the dry periods.

**16. Ecological features:** Thermokarst lakes are considered to be the indicative landscape components for the Penzhinsky-Parapolsky Dol. The process of their evolution includes spontaneous development of lakes, their growth, transformation and merging into the river network. After discharging of lakes, the underlying grounds freeze, become saturated with ice and give birth to new thermokarst water bodies. At different stages of their development, the thermokarst lakes perform different ecological functions. There are about 20,000 lakes in the area which fit into one of the following five groups:

(a) Small lakes: These are mainly round in shape, 250 to 300 m in diameter. The shores are low, often overgrown with dense floating vegetation: *Potamogeton* and *Sparganium* sp. Over 70% of all lakes fall into this group. The importance of these lakes for waterbirds is not high.

(b) Medium-sized lakes: These lakes are from 250-300 to 700 m across, the shores are low, with a narrow (up to 3 m) belt of vegetation. At the edge of the water, floating bogs occur, as well as sphagnum and cotton-grass mires. In the water, sparse aquatic vegetation is found. These lakes comprise 13 to 16% of the total number of lakes, their importance for waterbirds is not high.

(c) Medium-sized lakes overgrown with helophytes: These lakes are from 250-300 to 700 m across, with a wide (to 10 m) belt of vegetation composed of *Arctophila, Carex, Cicuta, Comarum* sp. and *Equisetum heleocharis*. Hydrophytes are represented by *Potamogeton* and *Myriophyllum* sp. About one third of the shore is covered by low grass meadows. Siberian dwarf-pine and alder elfin woods are also found along the shore line. Lakes of this type are usually located at lower places and provide breeding habitats for dabbling ducks, tufted duck *Aythya fuligula*, swans and

many waders. These lakes comprise 4-5% of the total number of lakes and support *c.*15% of the waterbird population.

(d) Large lakes: over 700 m across (up to 3-4 km). These lakes are usually connected with each other and the river network, and have an extensive shallow zone, with low meadows on the shores. The helophyte belt is wide, sometimes extending over 50% of the surface. At the edge of the water, *Arctophila fulva* and *Equisetum heleocharis* occur; clayey sites are dominated by *Senecio* sp. Further onshore, sedges and *Cicuta* are found, which in turn give way to grasses*: Calamagrostis*, *Poa* and some other species. These habitats are important moulting areas for wigeon *Anas penelope*, pintail *A.acuta*, greater scaup *Aythya marila*, long-tailed duck *Clangula hyemalis* and other ducks. Submerged aquatic vegetation, especially *Potamogeton* and *Myriophyllum* sp., is widely developed in these lakes and serves as the major food resource for ducks in the post-breeding period. These lakes comprise six to seven percent of the total number of the thermokarst lakes, but they support over 70% of the summer population of waterbirds, mainly ducks.

(e) 'Alass' depressions: Lake basins of various size, the water from which has discharged into the river network. These are completely overgrown with *Arctophila*, sedges and grasses. These habitats occur seldom and are of little importance for waterbirds.

All the thermokarst water bodies are shallow (to 2.5 m deep) and warm up well in summer, which provides favourable conditions for the development of hydrobionts.

Habitats of other types include rivers, channels and streams. Large rivers widely meander on the plain, developing long oxbow lakes and channels. These water bodies attract about 5% of the waterbirds.

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**17. Noteworthy flora:** Plant communities found in the 'alass' depressions are of particular importance as the relicts of the Late Pleistocene tundra-steppe.

Communities of the developed (old) thermokarst water bodies are also very interesting, as these have many common features with the lakes in south Siberia.

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**18. Noteworthy fauna:** The Parapolsky Dol includes many mammal species. The most numerous species are: elk *Alces alces* (4,000 individuals), reindeer *Rangifer tarandus* (100-200), brown bear *Ursus arctos*, wolf *Canis lupus*, red fox *Vulpes vulpes*, wolverine *Gulo gulo*, American mink *Mustela vison*, stoat *M.erminea*, Alpine hare *Lepus timidus*, brown squirrel *Sciurus vulgaris* and Alaskan ground squirrel *Citellus undulatus*.

The fish species include Arctic grayling *Thymallus arcticus*, five species of cisco *Coregonus,* pike *Esox*, burbot *Lota lota* and gobs *Gobiidae*. Salmons migrate to the area to spawn in summer.

Birds:
Approximately 180 species of birds occur at the site. From these, waterbirds comprise 28 species, and another 50 species are wetland-dependent at different stages of their life cycle.

(a) Migrating species

The area lies at a crossroads on the migration routes of waterbirds breeding in Yakutia, the Chukotka Peninsular and the Penzhinsko-Parapolsky Dol itself, and wintering in China, Korea, Japan and other eastern Asiatic countries.

The total number of geese migrating through the area in spring is about 15,000 individuals. The passage of ducks is less pronounces. Common scoter *Melanitta nigra*, American white-winged scoter *M.deglandi* and long-tailed duck *Clangula hyemalis* pass over the area in large flocks at a height of 200-300 m in late May. In this period, several thousands of these birds have been registered daily.

The number of migrating birds in autumn is unknown. Depending on the weather, the migration lasts from the middle of August till the end of September. In the Penzhinskaya inlet, about 25,000 geese (*Anser albifrons* and *A,fabalis*), dozens of thousands of dabbling and diving ducks have been registered.

(b) Breeding species

The breeding population of waterbirds in the late 1980s, according to the ground counts, was as follows:

| Species | Population, thousands of individuals | Proportion, % | Proportion of young birds, % | |
|---|---|---|---|---|
| | | | July | August |
| *Anas crecca* | 50.7 | 10.8 | 56 | 47 |
| *Anas penelope* | 49.3 | 10.6 | 68 | 57 |
| *Anas acuta* | 79.5 | 17.1 | 50 | 35 |
| *Anas clypeata* | 7.6 | 1.6 | 51 | 54 |
| *Aythya fuligula* | 29.7 | 6.3 | 3 | 30 |
| *Aythya marila* | 99.1 | 21.4 | 13 | 39 |
| *Melanitta nigra* | 35.0 | 7.5 | 28 | 75 |
| *Clangula hyemalis* | 101.0 | 21.7 | 12 | 4 |
| Others | 12.5 | 2.6 | 32 | 36 |
| Total | 464.4 | 100 | - | - |

(c) Moulting species

Males of *Anas penelope* concentrate for moulting on the large lakes overgrown with submerged vegetation, up to 1,000-1,500 individuals per lake. Moulting concentrations of pintail *Anas acuta* occur on the lakes between the estuaries of the rivers Penzhina and Talovka in July. *Aythya marila* and *Clangula hyemalis* moult at the large lakes with extensive areas of open water in the amounts of several dozens to several hundreds. There is not enough data to estimate the total number of moulting birds.

(d) Rare and endangered species

The rare species breeding in the area include white-tailed eagle *Haliaeetus albicilla* (15-20 pairs), gyr falcon *Falco gyrfalco* (1 pair), peregrine falcon *F. peregrinus* and osprey *Pandion haliaeetus*.

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**19. Social and cultural values:** The wetlands of Parapolsky Dol present a stable buffer hydrological system which supports the inundation level of a large area, including spawning areas of valuable fish species, used both for sport and for food. The site is an intact natural area, and as such, offers an opportunity to study natural hydrological and ecological processes, to make films on animals in their natural habitats, etc.

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**20. Land tenure/ownership:** The state farms (joint stock companies) of Manialsky, Penzhinsky and Talovsky are the major landowners in the area. Their main activities are reindeer grazing and hay harvesting. In the last years, a number of smaller plots of land have been allotted to co-operative and private farmers.

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**21. Current land use:** Traditional activities at and around the site have relied on the reindeer breeding (near the site border), small-scale timber felling for fire-wood and hay harvesting at a few traditional 'alass' areas. The latter takes place in August, when the breeding season of most waterbirds ends.

Development of extractive industries in the region gives the major concern about the future status of the site. Enterprises are being located closer and closer to the site: the Ametistovoye mine is situated on the shore of Lake Talovskoye. Development of the production of metals entails an increase in human population and machinery, with subsequent recreational pressure and pollution of the area with oil

products, heavy metals and other industrial and domestic waste. The gold production results in a decrease in water quality in the rivers and siltation of the riverbeds.

**22. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land use and development projects:** See Section 21.

**23. Conservation measures taken:** The area includes the 1,023,800 ha Belaya River temporary wildlife refuge (‘zakaznik’), established at the local level. All economic activities are prohibited.

The 327,156 ha Koryaksky Nature Reserve (‘zapovednik’) was set aside in 1995 and is still under development. Part of the Ramsar site is included in this reserve.

Organizations which are responsible for the nature management at the site include the Hunting Management Office of the Penzhinsky District, the Regional Fishery Inspection, Society of Hunters and Fishermen and Regional Committee for Environmental Protection. However, practical protection is limited, as the area is hard to access and air vehicles are very expensive at the present time.

**24. Conservation measures proposed but not yet implemented:** It has been proposed to establish two wildlife refuges ('zakazniks') in the area; to adopt the regulations governing the protection regime at the Parapolsky Dol Ramsar Site; and to provide financial assistance to the Regional Environmental Committee to ensure implementation of the regulations.

**25. Current scientific research and facilities:** Research on the regional avifauna began in the 1930s, but after their results were published (Dementyev, 1940), no ornithologists visited the area until the early 1970s (Yakhontov, 1979). In the 70s and 80s, regular studies of waterbird populations and waterfowl harvest were carried out (Gusakov, 1983, 1986, 1988). At present, these have been stopped due to the lack of funds.

The area is of great scientific interest. Important ornithological points within the site are readily accessible by boat, and there are hunting cabins in the area that can be used to stay in during fieldwork.

**26. Current conservation education:** Education and public awareness actions are required.

**27. Current recreation and tourism:** Outdoor recreation activities of the local population include picnics at a distance of less then 10 km from the villages and collecting of food plants. Recreational pressure is low. It increases in the hunting season, but not much. Tourism is not developed.

**28. Jurisdiction:**

Territorial: Administration of the Koryak Autonomous Area (22 Porotova Street, Palana, Kamchatka 684620, Russia).

Functional: State Committee of the Russian Federation for Environmental Protection (4/6 Bolshaya Gruzinskaya Street, Moscow 123812, Russia).

**29. Management authority:** Regional Committee for Environmental Protection (Palana 684620, Kamchatka, Russia).

Management authority directly responsible for the site will be named after the governor's adoption of the Regulations for the Parapolsky Dol Ramsar Site.

**30. Bibliographical references:** Gusakov (1988); Tomirdiaro (1978).