



Międzynarodowa Konferencja

# Żubry w Białowieskim Mateczniku

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Przypadki schorzeń stwierdzono głównie w Europie centralnej i wschodniej ale zdarzały się przypadki w Hiszpanii, Niemczech i Holandii oraz pojedynczy przypadek najprawdopodobniej *balanoposthitis* w Kirgizji. Częstość stwierdzeń chorób u żubrów związana jest z intensywnością prowadzenia badań w tym kierunku oraz liczebnością lokalnych populacji.

### **Geographic distribution of cases of diseases with microbiological origin in wisents**

The analysis of literature data until 2018 concerning cases of diseases or detection of antibodies indicating the contact with pathogenic microorganisms in wisents from captivity and free ranging herds was conducted. Because of so far unexplained origin of *balanoposthitis* such cases were also considered. In the literature there were described three kinds of viral diseases (foot and mouth disease, blue tongue disease and Schmallenberg virus), six bacterial diseases (tuberculosis, Lyme disease, *Mycoplasma*, *Clostridium perfringens*, Q fever, *Anaplasma phagocytophilum*) and three diseases caused by protozoa (coccydiosis, *Neospora*, *Trichomonas*). Incidence of diseases were mostly recorded in eastern, and central Europe, but there were also such cases in Spain, Germany and the Netherlands, as well as a single case of most probably the *balanoposthitis* in Kirghizia. The frequency of detection of diseases in wisents is connected with intensity of studies on this subject and the size of local populations.

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### **Formation of a large free ranging population of European bison in Russia**

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National Park Orlovskoe Polesie, Orel region, Russia

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In the Orel region, the only large protected area is the National Park Orlovskoe Polesie. The total area of the Park is 77,745 ha, including the land of the Forest Fund – 33,032 ha. The forests of the national park represent the eastern outskirts of the Bryansk and Kaluga forests. The presence of such relatively large forest areas is especially important due to the lack of suitable land for European bison habitat and serves as the basis for the creation of a sufficiently large wisent population necessary for the conservation of this species.

The European bison dominates the extensive list of rare species of fauna of the Orlovskoe Polesie being a symbol of the national effort to save rare and endangered species. Work on the reintroduction of European bison began here

in 1996. As part of the Program for Preservation of the Russian Bison (1996) specialists from the Institute of Ecology and Evolution A. N. Severtsova RAS, bison nurseries of Prioksko-Terrasny and Oksky nature reserves and WWF of Russia carried out inspection of the territory of National Park and adjacent lands. They evaluated the land cover, climatic conditions, food supply, conducted radiological measurements, collected information on the veterinary state of the territory and possible limiting factors, including poaching. The results of the research allowed to classify the territory of Orlovskoe Polesie as suitable for the creation of a free population of European bison. At the same time, the perspective of the growing E. bison population migrating outside the National Park into the forest lands of the Kaluga and Bryansk regions were immediately considered.

In years 1996–2001, 65 European bison from various breeding centers of the world were released in Polesie, which allowed for the first time to concentrate the representation of entire world gene pool of the European bison within one newly created population. During twenty-three years, this population of E. bison has shown the steady increase. According to the records from 2019, the National Park was inhabited by 401 individuals including 70 yearlings (calves born in 2018) (Table).

Year	population size	newborn	dead	captured
1996	9	0	3	–
1997	18	0	1	–
1998	27	1	0	–
1999	40	3	1	–
2000	57	5	5	–
2001	68	6	1	–
2002	69	1	0	–
2003	77	8	2	–
2004	80	13	1	–
2005	98	18	4	–
2006	122	24	4	–
2007	141	13	2	–
2008	160	33	2	–
2009	178	33	6	–
2010	208	36	1	–
2011	147	23	0	–
2012	171	14	1	–
2013	203	32	5	–
2014	237	23	1	4

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Year	population size	newborn	dead	captured
2015	271	44	1	5
2016	286	37	1	7
2017	350	49	1	9
2018	383	46	4	7
2019	401	70	7	9

Data given in Table indicate that the number of individuals is steadily increasing, the birth rate was always much higher than the mortality rate, so the population is on an increase. We could not include in table losses caused by possible poaching and migration because of lack of such data.

Currently, some 700 European bison inhabit the National Park and adjacent territories of Kaluga and Bryansk regions which makes it the largest free population in Russia. Regarding its numbers, this population of European bison is second only to the population of Białowieska Forest, has a unique genetic potential and has real prospects for further growth (up to 1000 heads or more), and reaching the stage of self-maintenance. According to experts, the Orel – Bryansk – Kaluga region is a promising site for conservation of free ranging population of European bison in natural conditions.

Nevertheless, considering the current trend in the growth of the European bison population, it is extremely important to secure a sufficiently large area for this purpose by creating a unified system of protected areas in the Orel, Bryansk, Kaluga and Tula regions, that would be interconnected by a buffer zone.

### Tworzenie dużej wolnej populacji żubra w Rosji

W regionie Orłowskim jedynym dużym obszarem chronionym jest Park Narodowy Polesie Orłowskie. Całkowita powierzchnia Parku wynosi 77 745 ha, w tym grunty zasoby leśnego – 33 032 ha. Lasy parku narodowego stanowią wschodnie obrzeża lasów Briańska i Kaługi. Obecność takich stosunkowo dużych obszarów leśnych jest szczególnie ważna ze względu na brak odpowiednich terenów dla żubra oraz stanowi podstawę do stworzenia wystarczająco dużej populacji tego gatunku niezbędnej dla właściwej ochrony.

Żubr dominuje na obszernej liście rzadkich gatunków fauny Polesia Orłowskiego jako symbol narodowych wysiłków na rzecz ratowania rzadkich i zagrożonych gatunków. Prace nad ponownym wprowadzeniem żubra rozpoczęły się tutaj w 1996 r. W ramach Programu Ochrony Rosyjskiego Żubra (1996) specjaliści z Instytutu Ekologii i Ewolucji A.N. Severtsova RAN, pracownicy rezerwatów przyrody Prioksko-Terrasny i Oksky oraz WWF Rosja przeprowadzili ocenę terytorium