

The OUTCOMES

**of the Third International Scientific and Practical Conference
“Eagles of the Palearctic: Study and Conservation”
and the International Workshop “Population Status and Problems of
Conservation of the Saker Falcon”**

Almaty, Kazakhstan, 28/09/2023



[Biodiversity research and conservation center community trust \(BRCC\),](#)

[Russian Raptor Research and Conservation Network \(RRRCN\),](#)
[Association for the Conservation of Biodiversity of Kazakhstan \(ACBK\),](#)

[Institute of Zoology Republic of Kazakhstan,](#)

[Bird Conservation Union of Kazakhstan,](#)

[Russian Bird Conservation Union \(RBCU\),](#)

[MME/Birdlife Hungary,](#)

[Nature And Biodiversity Conservation Union \(NABU\),](#)

[«Aquila» Kordian Bartoszek, Veter stranstviy \(«VETERS» LLC\)](#)

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The III International Scientific and Practical Conference “Eagles of Palearctic: Study and Conservation” was held in Almaty Resort Sanatorium, Almaty, Kazakhstan, from 25th till 29th of September 2023.

Also at 24th of September, before the conference, a satellite event was held: the International Workshop “Population Status and Problems of Conservation of the Saker Falcon”.

151 specialists from 32 countries took part in the conference, including:

- 12 European countries: Austria, Bulgaria, Great Britain, Hungary, Germany, Greece, Spain, Italy, Poland, Slovakia, Croatia, Czech Republic;
- 8 countries of South-West Asia: Armenia, Georgia, Israel, Jordan, Iran, UAE, Saudi Arabia, Turkey;
- 2 countries of South Asia: India, Pakistan;
- 4 countries of Central Asia: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan;
- 2 countries of East Asia: China, Japan;
- 2 African countries: Egypt, South Africa;

as well as the Russia and USA.

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Eighty presentations on different subjects of raptor species' ecology and geography, conservation aspects, and research methods were done. A collection of abstracts was published (<http://rrrcn.ru/en/archives/35682>, <https://www.brcc.kz/en/projects-and-plans/eagles-of-the-palearctic/eagles-of-the-palearctic-abstracts>) in three languages (Kazakh, Russian and English), which included 113 abstracts of 235 scientists from 30 countries.

The program of the conference consists of **four panels**:

- I. Distribution, Population Status, Ecology and Conservation of Eagles and Vultures
- II. IX International Conference on the Conservation of the Eastern Imperial Eagle (*Aquila heliaca*)
- III. III International meeting on conservation of Steppe Eagle (*Aquila nipalensis*)
- IV. II International workshop “Raptors and Energy Infrastructure”

A short plenary session was devoted to the legislative protection of birds of prey, and the introductory part of “Species Distribution Modeling” workshop was also a special event.

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https://www.brcc.kz/2023_eagles_conference/

<https://www.brcc.kz/projects-and-plans/eagles-of-the-palearctic/>

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I. DECLARATION OF THE IX INTERNATIONAL CONFERENCES ON THE CONSERVATION OF THE EASTERN IMPERIAL EAGLE (*AQUILA HELIACA*)

Having listened to 14 reports presented in the conference about the population status and research of the Eastern Imperial Eagle (*Aquila heliaca*) populations in 7 countries in the period 2018 – 2023.

Having stated that most of the world's breeding populations seem to be stable or slightly increasing, particularly in the Pannonian (Hungary, Austria, Slovakia, Czech Republic, Northern Serbia and Western Romania) and Thracian (Bulgaria, European Turkey, Eastern Greece) ecoregions; with the exception in two parts of Russia, the most western (Oka-Don interfluve) and eastern (Dauria) populations, where the distribution has retracted.

Being aware to the lack of information about the state of the Imperial Eagle population in Mongolia, China, Uzbekistan, Turkmenistan and Iran.

Noting that threats have been studied in greater detail on summering grounds, less so on migratory or wintering grounds.

Having found out that, along with indirect threats – habitat degradation and loss of key prey species (due to intensification of agriculture and infrastructure development), the most important direct threats to the species at the moment are:

- electrocution,
- persecution (especially poisoning in the Pannonian and Thracian populations),
- collision (with vehicles, overhead cables, and wind farms),
- illegal trapping (in the Middle-East).

Noting dispersal movements of Imperial Eagles have been intensively studied by satellite tracking in almost all main populations. This research has provided significant new information on migration routes, habitat use in wintering and breeding habitats, but also on summer temporary settlement areas of non-breeding immatures.

Having found out that human disturbance and diet composition on breeding performance of Imperial Eagles (this information can help to improve regional conservation strategies).

Recognize the significant **survey efforts** in many of the range countries, especially the vast amount of data collected and the distribution model built for the breeding populations of the species in Kazakhstan and Russia;

Recognize the **intensive research** executed on dispersal movements and breeding performance in most populations of the species;

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Recognize the significant **conservation efforts** in many of the range countries, i.e. activities to mitigate electrocution and fight against illegal persecution. These have contributed to positive change in population status in many of these countries;

The Participants to the Conference *recommend*:

- research effort focused on **existing gaps in our knowledge** about some breeding populations (e.g. Uzbekistan, Turkmenistan, Iran, China, Mongolia) and about distribution, density and threats on the main wintering grounds;
- continued and improved conservation actions in order to mitigate the effects of main **direct threats** (electrocution and persecution) of Imperial Eagles in the breeding and wintering areas, but also along the main flyways of the species;
- an advocacy by the conservation community and use the Imperial Eagle as a flagship species in order to **preserve and/or rehabilitate natural habitats**, which are degraded due to agricultural intensification and infrastructural development;
- pay special attention to **emerging new threats**, such as the rapid development of renewable energy facilities (windfarms, solar power stations) and associated infrastructure, as well as the species-specific effects of climate change;
- pay special attention to potential **unknown or underestimated threats**, like poisoning from rodenticides or lead;
- strengthen international collaboration, incl. in research:
 - of breeding distribution of Imperial Eagles globally, including regional population size and trend estimations based on strict scientific standards;
 - of eagle dispersal movements from different Imperial Eagle populations globally, including the mortality causes of tagged individuals;
 - of genetic structure of the populations in order to understand better the genetic status and the metapopulation system of the species throughout its breeding distribution.

Declare that the **X. International Conference on the Conservation of the Eastern Imperial Eagle** can be organized jointly with the *Eagles of the Palearctic: Study and Conservation, Fourth International Scientific and Practical Conference* in 2028.

Recommend that the next conference should be organized in one of the main wintering countries of the species, in order to facilitate focused research of wintering populations and improved cooperation between experts working in the breeding and wintering grounds.

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**II. THE OUTCOMES OF THE III INTERNATIONAL MEETING ON CONSERVATION OF STEPPE EAGLE
(AQUILA NIPALENSIS)**

The meeting brought together more than 40 delegates representing at least 14 countries. 14 scientific reports were presented, highlighting research findings related to the breeding ecology, migration, and conservation of the Steppe Eagle. A round-table discussion also took place, focusing on global and national conservation initiative, particularly emphasizing the host country, Kazakhstan.

The III International Meeting participants:

Recognizing that this meeting stands as the most comprehensive and representative assembly focusing exclusively on the Steppe Eagle’s conservation status on a global scale,

Noting that the evidence presented underscores that the Steppe Eagle remains in unfavorable conditions regionally and globally,

Affirming that with almost 75% of the global population breeding there, Kazakhstan remains crucial for the species survival,

Further noting the loss of 4,000 breeding pairs since 2018, representing 15% in the national population,

Emphasizing that the global Steppe Eagle status is largely defined by the condition of its population in Kazakhstan,

Being aware that the Steppe Eagle is of a particular relevance for Kazakhstan as a national symbol and is a part of national identity,

Establishing the major threats to the species as following:

- Habitat loss and fragmentation, primarily caused by the increasing agricultural development of untouched and fallow steppes,
- Habitat degradation, attributed to a reduction in prey base and human-induced changes in fire regime among other causes,
- Electrocutation on power lines;
- Poisoning by rodenticides, direct-acting poison, and veterinary drugs, primarily used in agriculture and for the control of rodent populations,
- Persecution: shooting and trapping for different reasons that occur in the breeding areas, on migration routes, and in the wintering places,

Noting that these threats:

- Leave a long-term impact (at least several decades);
- Are aggravated by severe weather conditions;

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Emphasizing that these threats collectively contribute to high mortality rates among adult and juvenile eagles, as well as low breeding success affected by the abnormally high involvement of subadults among other reasons, resulting in population decline,

Unanimously support:

- The proposal of the Royal Society for the Protection of Birds (RSPB) to restart the initiative to develop a Global Action Plan for the Steppe Eagle conservation, establishing a Working Group and seeking assistance from the Convention on Migratory Species (CMS) Secretariat and Raptors MoU,
- The endorsement of the Association for the Conservation of Biodiversity of Kazakhstan (ACBK) to formulate a National Action Plan for Steppe Eagle Conservation in the Republic of Kazakhstan, submitting a proposal to relevant governmental bodies and providing expert guidance throughout the document’s development,
- A call for the Government of the Republic of Kazakhstan to elevate the Steppe Eagle’s status in the national Red Data Book, enhance legal penalties for harm to the species, and align compensation rates with those of the Golden Eagle (*Aquila chrysaetos*),

Address governmental bodies and other interested organizations in the species area as recognized experts on the Steppe Eagle, and

Recommend to:

- 1) Urgently implement suitable bird protection measures against electrocution on power lines, especially in breeding and mass migration areas,
- 2) Carry out the comprehensive risk assessment for large raptors (including the Steppe Eagle) in the planning, construction, and operation of wind and solar energy farms,
- 3) Establish a centralised monitoring and coordination at a national level to address and mitigate the main threats to the Steppe Eagle population,
- 4) Continuously monitor the Steppe Eagle’s wintering sites and migratory routes, including countries outside of the breeding area, to better understand and mitigate potential threats during these critical periods,
- 5) Involve more partner countries to intensify conservation outreach efforts at the community level, tailoring actions to each country’s specific context and relevance to the Steppe Eagle’s lifecycle,
- 6) Promote engagement and direct communication with different stakeholders whose economic and other activities affect the Steppe Eagle populations, including farmers and agricultural business, energy companies, veterinarians and anti-plague governmental services, and others.

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III. THE OUTCOMES OF THE II INTERNATIONAL WORKSHOP “RAPTORS AND ENERGY INFRASTRUCTURE”

Having listened to 23 reports presented at the seminar, presentations on results of studies on various aspects of the impact of power lines and wind farms on biodiversity, as well as *a having discussed* on initiatives to prevent and mitigate these impacts.

Noting that power lines and wind farms can have negative impacts on biodiversity, especially on flying animals such as birds and bats.

Having confirmed that the main threats from power lines are:

- death of animals from electrocution;
- death of birds as a result of collision with wires.

Having found out that the main threats from wind farms are:

- collision mortality with turbines
- habitat loss from the construction of wind-farm infrastructure.
- barrier effects via avoidance of wind-farm infrastructure, behavioral changes, and loss of habitat connectivity for animals.
- mortality on power line associated with new wind facilities.

Noting that Central Asia, in particular Kazakhstan, is an area with an extensive power transmission line infrastructure and high wind power potential. Most operating wind farms in Kazakhstan were built without consideration of rare species both nesting at project sites and migrating through them.

The participants of the workshop address to the governments and competent authorities / organizations of their countries with the following suggestions:

1. Applying the UN Sustainable Development Goals and other sustainable development tools in organizing stakeholder engagement process and building dialogues with interested parties to develop balanced decision.
2. Joining (if not already joined) representatives of countries (authorized bodies and organizations) to the activities of the Energy Task Force Powerline Working Group and the CMS Raptors MOU Electrocution discussion group.
3. Requesting, collecting and consolidating (at CMS level) information on the length, schematic location, and other specification of OPL dangerous for birds for each country.

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Going forward, workshop participants recommend:

- utilizing best practices from the global community to design and or operate power lines and wind farms. Minimization techniques also can be applied to already-operational wind farms.
- adopting a mitigation hierarchy of Avoid, Minimize, and Mitigate*,
- improving legislation and implementing policies, that protect critical ecosystems, habitats, species, and migration corridors also are strongly advised.

*The Avoidance phase involves recognizing threats to biodiversity, such as identifying ecosystems, habitats, species, and migration routes that would be adversely affected by wind facilities. Realistic proposals of alternatives are advised, as are conducting standardized baseline studies that can inform an environmental impact assessment and conducting risk modeling to devise alternative siting options. Considerations of options for turbine design, turbine-layout configuration, and other aspects of construction and operation that will minimize mortality and indirect loss are advised. The Avoidance phase helps lessen the cost and labor necessary for minimization and offsetting measures for an operational wind farm.

The Minimization phase can involve such actions as employing technologies that can detect incoming flights of volant animals and curtail the operation of turbines.

The Mitigation phase can involve such actions as providing monetary compensation for mortalities and lost habitat.

In order to implement the above recommendations, for Russia, Kazakhstan and other Central Asia countries, the seminar participants recommend:

1. Introduce into legislation and give a legal definition of the following concepts:
 - “migration corridor of migratory birds and bats”,
 - “buffer zones” within which economic activities should be restricted or prohibited in order to preserve endangered ecosystems and rare species at different life cycle stages,
 - “map of risk zones from energy facilities for birds and bats”,
 - “green energy” in the context of avoiding negative impact on biodiversity objects,
 - “proximity detector” for flying animals.
2. Develop national standards and pre-construction survey protocols to establish baseline environmental conditions and population levels of vulnerable species.
3. Developing national Standards for the protection of birds on overhead power lines (OPL) that should be consistent with the requirements and recommendations of the International Union for Conservation of Nature (IUCN) “Wildlife and power lines. Guidelines for preventing and mitigating wildlife mortality

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associated with electricity distribution networks”. It is important to include in such standards the definition of hazard parameters for birds in the structures of electricity distribution networks (including substations).

4. Develop and implement “map of risk zones from energy facilities for birds and bats”.
5. Prohibit the design and construction of bladed-turbine wind farms with a horizontal axis of rotation greater than 50 KW in bird migration corridors and in high risk areas for birds and bats.
6. Prohibit the operation of wind power farms during spring and fall migrations in migratory bird corridors when they are equipped with horizontal axis-rotation turbines but not equipped with automatic shutdown technology.
7. Develop a technical standard for “bird protection mechanisms used at wind energy facilities”.
8. Develop a methodology for assessing the impact of wind power plants on biodiversity and specifically adapted for the countries of Central Asia, in particular Kazakhstan.
9. Develop buffer zone parameters for listed Rare Species and species included in the international Red List and national Red Books, depending life cycle stage.
10. Develop post construction standards and protocols for mitigation, offsetting, or even dismantling of wind turbines, in case collisions are detected during operational monitoring.
11. Establish mitigation schemes, such as mitigation banks.

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IV. ALMATY DECLARATION ON THE SAKER FALCON: THE OUTCOMES OF THE INTERNATIONAL WORKSHOP “POPULATION STATUS AND PROBLEMS OF CONSERVATION OF THE SAKER FALCON”

More than 50 people took part in the satellite event. Nine reports were heard on the saker falcon in different parts of its range. The speakers presented information on the state of the saker falcon population at breeding sites, migrations and wintering grounds. Data from tracking the movement of birds from the Russian part of the Altai-Sayan region using trackers made it possible to obtain information about the critically low survival rate of young birds in the first years of life.

Based on the reports listened to, as well as the discussions, the seminar participants:

Noting that recent studies in Russia and Kazakhstan show that the local populations continued to decline over the last decades. The two main threats to the species are considered to be electrocution and illegal trapping; while the impact of climate change is likely to affect the species further in the future.

Welcoming that in Russia, the provision of artificial nests, reinforcement programmes, and the retrofitting of 10,000 km powerlines has been successfully implemented and law enforcement to combat illegal taking has been improved.

Recognising that legal protection alone has not brought satisfactory results in halting the species decline in Kazakhstan and Russia.

While recognising that knowledge gaps on the population status and trends in key Central Asian breeding Range States of the species, such as Kazakhstan, need to be determined.

Acknowledging that genomic research and other techniques can further inform decision-making on the determination of population conservation units.

The Participants in the Conference:

Recognise that the Saker Falcon Global Action Plan (SakerGAP) is the international document that guides conservation efforts for the species in its global range by all stakeholders, Governments, research communities, conservationists and users, working cooperatively.

Acknowledge the Saker Falcon Task Force (STF), established by the Parties to the Convention on the Conservation of Migratory Species of Wild Animals (CMS), as the international forum where science provides guidance to innovative conservation policies and practices for the implementation of the SakerGAP.

Welcome the collaborative work towards the development of an Adaptive Management Framework (AMF) for the Saker Falcon by the STF to address illegal taking and trade, as well as towards mitigating the electrocution of the Saker Falcon and other birds of prey.

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Call for the Range States (CMS Parties as well as non-Parties) to continue supporting the work of the STF to facilitate further communication and fundraising efforts towards the implementation of the SakerGAP.

Invite the Range States, the research community and other stakeholders to focus their efforts towards:

- 1) updating the information about national population sizes and trends for the update of the SakerGAP,
 - 2) the assessment of the relative impact of key pressures, such as electrocution on medium-voltage power lines and the illegal taking and trade of the Saker Falcon, and long-term changes in key habitats, in the European and Central Asian parts of the species range,
 - 3) the identification of Saker Falcon electrocution hot spots and priority power lines for mitigation,
 - 4) the retrofitting of priority power lines and the most dangerous pole types in key areas,
 - 5) the introduction of legal provisions that would ensure that new powerlines are bird-safe by design,
 - 6) the analysis of socio-economic drivers of use,
 - 7) the identification of hot spots of illegal taking and trade, and social groups involved in them, especially in Central Asia and the Middle East,
 - 8) the identification of gaps and potential contradictions in national and international policies and legislation to ensure that taking¹ Saker Falcons from the wild are, where legal, controlled and sustainable,
 - 9) the introduction of national laws and regulations to ensure that legal taking from the wild does not target largely depleted or decreasing populations monitored over three Saker Falcon generations,
 - 10) the development of law enforcement mechanisms to reduce illegal use of the Saker Falcon (harvest/capture/trade/keeping) through the increase in the compliance-friendliness of regulatory design, effective control and sanctioning,
 - 11) the assessment of the role of climate change in the survival of the species and the maintenance of its habitats and prey base,
 - 12) working collaboratively to develop a combined analysis of movements and survival based on satellite tracks and other data, and
 - 13) provide guidance for falcon release programs initiated by end-users and law enforcement bodies to increase the reintegration rate of released falcons into wild, breeding populations, and preferable into their original source population.
-