

EUROPE / NORTH AMERICA

COLCHIC RAINFORESTS AND WETLANDS

GEORGIA



Kolkheti Imnati mire channels © IUCN / Josephine Langley

WORLD HERITAGE NOMINATION – IUCN TECHNICAL EVALUATION

COLCHIC RAINFORESTS AND WETLANDS (GEORGIA) – ID N° 1616

IUCN RECOMMENDATION TO WORLD HERITAGE COMMITTEE: To inscribe the property under natural criteria (ix) and (x).

Key paragraphs of Operational Guidelines:

Paragraph 77: Nominated property meets World Heritage criteria.

Paragraph 78: Nominated property meets integrity, protection and management requirements.

1. DOCUMENTATION

a) Date nomination received by IUCN: Original nomination received in March 2019.

b) Additional information officially requested from and provided by the State Parties: During and after the IUCN field evaluation mission, the State Party of Georgia submitted additional information on the nominated area, including additional maps. Following the IUCN World Heritage Panel, a progress report was sent to the State Party on 19 December 2019. This letter advised on the status of the evaluation process and sought responses and clarifications on the status of invasive alien species; further details on invertebrates, fungi and freshwater species; feasibility of a single, larger buffer zone; possible inclusion of dune systems in the nominated area or buffer zone; and current status on development of ports and shipping facilities near the nominated area. The State Party submitted a formal response and additional information on 21 February 2020.

c) Additional literature consulted: Various sources, including: Connor, S.E., Thomas, I., Kvavadze, E.V. (2007). A 5600-yr history of changing vegetation, sea levels and human impacts from the Black Sea coast of Georgia. *The Holocene* 17(1):25-36; Garstecki, T. (2017). Feasibility assessment for a World Heritage nomination of the Colchic Forests and Wetlands under the natural criteria. Michael Succow Foundation for the Protection of Nature, Greifswald [online] <http://eprints.iliauni.edu.ge/6829/>; Green, M.J.B., Shubiridze, G. (2019). Expansion and Improved Management Effectiveness of the Achara Region's Protected Areas. Terminal Evaluation Report, GEF Project ID: 4835, UNDP PIMS ID: 4732; Krebs, M., Matchutadze, I., Bakuradze, T., Kaiser, R. (2017). Georgia. In: *Mires and peatlands of Europe: Status, distribution and conservation* (Joosten, H., Tanneberger, F., Moen A., editors), Stuttgart: Schweizerbart Science Publishers; Nakhutsrishvili, G., Zazanashvili, N., Batsatsashvili, K., Montalvo Mancheno, C.S. (2015). Colchic and Hyrcanian forests of the Caucasus: similarities, differences and conservation status. *Fl. Medit.* 25 (Special Issue): 185-192; Novák, P., Zukal, D., Kalníková, V., Chytrý, K., Kavgacı, A. (2019). Ecology and Syntaxonomy of Colchic forests in south-western Georgia (Caucasus Region). *Phytocoenologia* 49(3): 231-248.

d) Consultations: 8 desk reviews received. The mission met with a wide range of stakeholders including Agency of Protected Areas (APA) staff and rangers, representatives of the Ministry of Environment, Administration of the Autonomous Region of Adjara, municipalities, NGOs, donors, guesthouse owners, local agriculture and business owners (beekeepers, pastoralists, etc.), monks and scientific experts/researchers.

e) Field Visit: Angie Stringer and Josephine Langley, 28 September – 8 October 2019

f) Date of IUCN approval of this report: May 2020

2. SUMMARY OF NATURAL VALUES

The Colchic Rainforests and Wetlands is nominated as a serial property in the Caucasus region comprising seven component parts with a total area of 31,253 hectares (ha) and a 26,850 ha buffer zone (See table 1).

The component parts are located within an area extending 80 km north to south along the Black Sea coast of western Georgia, in the territory of three local government jurisdictions within Georgia: the Autonomous Republic of Adjara, plus the regions of Guria and Samegrelo–Zemo Svaneti. The altitude covered by the component parts ranges from sea level to 2,750 m. The nominated property is located in the Colchic biogeographical province, part of the Euxinian-Colchic ecoregion, recognized as an important climate refuge due to consistent warm and humid climate and proximity to the Black Sea. This region is of recognized global conservation significance as a Biodiversity Hotspot, WWF Global 200 Ecoregion and Centre for Plant Diversity, several Key Biodiversity Areas (birds, endemic species and freshwater biodiversity) and also includes two Ramsar Sites: Ispani and Kolkheti.

Component part 1 (Kintrishi-Mtiralala) is the largest component part, and is dominated by Colchic rainforests with an eastern border that is 27 km from the Black Sea coast, the component part ranges from 250 to 2750 m above sea level. It is mostly a dense mosaic of 23 forest associations with a prominent evergreen understory, and there are streams, rivers and some lower alpine grassland and thickets above the tree line. The diversity of the forest vegetation is

distinctive, including 48 tree, 65 shrub and seven liana species.

Component parts 2 to 7 are lowland sites, with a maximum elevation of 10 m above sea level with a mixture of Colchic lowland forests and wetlands. The wetlands include percolation bogs, fens and some portions of rivers. No marine area is included in the nominated property and the wetlands are all freshwater ecosystems. Parts of components 3, 6 and 7 are only separated from the Black Sea by narrow belts of low-lying coastal dune systems, which are not included in the nomination or the buffer zone.

Region	No	Nominated component parts	Area (ha)	Buffer zone (ha)
Adjara	1	Kintrishi-Mtirala	20,150	9,140
	2	Ispani	248	531
Guria	3	Grigoleti	125	328
	4	Imnati	3,418	13,386 ¹
Samegrelo – Zemo Svaneti	5	Pitshora	2,393	
	6	Nabada	2,976	2,586
	7	Churia	1,943	879
TOTAL			31,253	26,850

Table 1: Component parts constituting the nominated property, Colchic Rainforests and Wetlands.

¹Imnati and Pitshora nominated component areas share a common buffer zone.

Given the location in a biodiversity hotspot with high levels of endemism, species richness is high in the nominated property. Species records include at least approximately 1,100 plant, 67 mammal, 15 reptile, 10 amphibian, 55 fish and 327 bird species. Of the birds, 123 breed in the nominated property, and exhibit high levels of endemism. Several species are both local endemics and relict species such as the Colchic Crayfish (*Astacus colchicus*). While less research has been conducted on invertebrates, over 400 species have to date been identified.

The vegetation is a mix of temperate broadleaf, relict and restricted range species, with 82 endemic plants and 33 endemic vertebrates. The Colchic Mire Region contains distinctive peatlands and associated wetland species with high diversity, e.g. in the sphagnum moss taxonomic group, woody species, reptiles and amphibians.

19 species within the nominated property are threatened according to the IUCN Red List of Threatened Species. Six sturgeon, of which four are confirmed to breed in the area are Critically Endangered, among them the Colchic Sturgeon (*Acipenser colchicus* – CR), which is endemic to the rivers of Kolkheti. Four invertebrates, one reptile and

one bird species are Endangered, whilst another three invertebrates, one amphibian, two birds and one mammal are considered Vulnerable. The nominated property also harbors healthy populations of large mammal species that are not listed as globally threatened, but which are important in the regional context, including European Brown Bear (*Ursus arctos* – LC), Grey Wolf (*Canis lupus* – LC) and European Lynx (*Lynx lynx* – LC).

The property is nominated under criteria (ix) and (x) based on six attributes. The attributes noted as significant under criterion (ix) are the ecological processes related to the Colchic Rainforests, the ecological processes related to the Colchic mires and associated peatlands and the evolutionary processes related to the flora and fauna of the Colchic Centre of Plant Diversity Euxinian-Colchic ecoregion. The attributes noted as significant under criterion (x) are species richness, restricted range species and Threatened species.

The nominated property appears to hold significant value and benefits to the surrounding communities thanks to cultural and traditional use through beekeeping and foraging in the buffer zones. Further ecosystem services to Western Georgia include flood protection, buffer against sea level rise, and provision of drinking water from the rivers of component part 1 to the city of Batumi and neighboring communities.

3. COMPARISONS WITH OTHER AREAS

The nomination dossier sets out a very systematic comparative analysis. As expressed in its name, the nomination consists of two closely interrelated types of ecosystems: rainforests and wetlands. Thus, the global comparative analysis is divided into two parts under criterion (ix) and a third under criterion (x).

For the rainforest comparison, an initial screening of World Heritage and tentative lists yielded 25 terrestrial properties in the nemoral zone of the Holartic Realm. A thematic filter (focus of OUV on deciduous broad-leaved forest) narrowed the range of properties to 14. The Hyrcanian Forests (Iran, inscribed in 2019) and Hyrcan State Reservation (Azerbaijan, Tentative List since 1998) have the clearest similarities with the Colchic rainforests. However, there are profound climatic, structural and functional differences between the Colchic rainforests and the much more arid Hyrcanian forests. The nomination dossier justifies separate inscription as the nominated property is characterized by different selective pressures, adaptive trajectories and successional dynamics in the evolution of nemoral deciduous forests. The nominated property is also marked by a different flora, more tree and shrub species, and a richer vertebrate fauna.

The Colchic Rainforests and Wetlands have by far the smallest area in comparison with all inscribed properties of this comparison, but equal or exceed many of them in the richness of their flora and fauna: The nominated series occupies only 42% of the area of the next smallest (Hubei Shennongjia, China) and

only 2% of the area of the largest inscribed property in the comparison (Central Sikhote Alin, Russian Federation), but concentrates in its relatively tiny area a species richness of vascular plants and vertebrates (including overall counts and endemic species) comparable to the latter.

Regarding the wetlands, the dossier compares the nominated property with all boreal and nemoral mires globally, including in the southern hemisphere, because there are much stronger structural and functional similarities among mires of both hemispheres than is the case with forests. Six inscribed properties and three Tentative List sites are used for comparison, plus a Ramsar site (Kopuatai Peat Dome, New Zealand) which shows superficial similarities to the peatlands of the Colchic Mire region. The mires of the Colchic mire region, particularly its percolation bogs (i.e. exclusively rain-fed mires), represent a functional type of peatland that is not found anywhere else in the world, and that is at the same time the simplest type of mire in terms of its functionality. Since peatlands – in spite of their significant global area coverage and their even greater importance as terrestrial carbon stores – currently appear to be under-represented on the World Heritage List, the dossier asserts that inclusion of representative peatlands, and particularly their simplest type, on the World Heritage List is justified by this global comparison.

IUCN, in collaboration with UNEP WCMC, has undertaken supplementary comparative analysis, concluding that the ecosystems and biodiversity that characterise the nominated property appear to be of very high global significance, based on spatial analyses and literature review, both with regards to criteria (ix) and (x).

The nominated property is not found in a biogeographical unit which has been mentioned previously as a gap on the World Heritage List, nor does it overlap with any protected area considered to be amongst the most irreplaceable in the world for the conservation of mammal, bird and amphibian species. However, it overlaps with two Important Bird Areas (IBAs), Kolkheti and Kintrishi, which are considered globally significant, especially for migrating birds.

Regarding criterion (ix), the nominated property lies in ecoregions – two terrestrial and one freshwater – that are not well represented on the World Heritage List. In particular, there is currently no inscribed property in the Euxine-Colchic Broadleaf Forests ecoregion. The nomination is located entirely in the Caucasus terrestrial hotspot, as well as in a Centre of Plant Diversity and an Endemic Bird Area – the Caucasus –, which has only one inscribed site. The nominated property appears to be an excellent example of the Colchic swamp forests and peatlands, which are only found in the lowlands of Georgia.

With respect to criterion (x), the nominated property has a relatively high level of floral and faunal diversity compared to sites with similar forest and wetland features. The nominated property also has a high

proportion of endemic species, with numerous endemic plant species and almost a third of its mammals, amphibians and reptiles reported to be endemic. It also hosts significant numbers of globally threatened species, including many plants and birds. The nominated property is a key stopover for many globally threatened birds that migrate through the Batumi bottleneck.

Overall, the desk reviews received by IUCN confirmed the global significance of the nominated property under both criteria. In conclusion, IUCN considers that the nominated property constitutes a strong case to meet both criteria under which the site has been nominated.

4. INTEGRITY, PROTECTION AND MANAGEMENT

4.1. Protection

All protected areas in Georgia, except the category of protected landscapes, are state-owned. This also applies to the entire nominated area of the Colchic Rainforests and Wetlands, which is currently part of two national parks (Mtskheta and Kolkheti National Parks), two strict nature reserves (Kintrishi and Kobuleti Strict Nature Reserve), and a very small part of the nomination in Kintrishi Protected Landscape.

The component parts that are part of national parks are either within their strict protection zones or their visitor zones. The visitor zones of national parks differ from strict protection zones only in that they are accessible for visitors along marked trails and provide for small-scale visitor infrastructure. The development of small visitor infrastructure has to be in agreement with the long-term conservation objectives of the national park in question. No natural resource extraction is allowed in those visitor zones.

The buffer zones also consist of protected areas (except for 208 ha) and typically correspond to IUCN Protected Area Management Categories IV or V, or of Traditional Use Zones and/or Visitor Zones of National Parks (IUCN Protected Area Management Category II).

IUCN considers that the protection status of the nominated property meets the requirements of the Operational Guidelines.

4.2 Boundaries

The nomination describes the boundaries set for the component parts, which are all well protected, well researched and effectively managed existing protected areas. The areas included are subject to the highest levels of protection, have the least evidence of prior human impact and have no human activities other than limited low intensity visitation. All settlements, infrastructure and economic activities have been excluded from the nominated area. IUCN considers that this approach to delineate the site boundaries is adequate.

The nomination acknowledges the possibility of the creation of new protected areas in future (e.g. potential Racha-Lechkhumi-Lower Svaneti National Park), including further analysis that might provide opportunities for a future extension of the Colchic Rainforests and Wetlands. IUCN notes that there is indeed scope to extend the boundaries of the nominated property in the future. In particular, several freshwater KBAs in the Colchic region of Georgia are not fully covered and allow for further work to 1) extend existing protected areas, 2) collaborate with other landowners or 3) to create new protected areas. For migratory species, the boundaries only incorporate part of the resting and wintering areas for several important species. The Batumi Important Bird Area (GE 015) is a bottleneck of raptor migration, which partly overlaps with the southern portion of component part 1 – Mtirala-Kintrishi. However, seasonal migration counts are provided for the entire IBA and are not specific to the nominated area. On the other hand, raptor counts have not been undertaken in each component part and it is likely that raptors also roost in the lowland forests for Kolkheti National Park.

The partial inclusion of KBAs and IBAs is also due to the fact that the boundaries of the protected areas date back to their period of creation and were not the subject of strategic conservation planning using key biodiversity areas. Nevertheless, the nominated areas receive the most rainfall and structural variations and heterogeneity for the rainforests and contain the most representative relevant mires in different stages of succession for the lowlands are included in the nomination.

In terms of proposed buffer zones, IUCN notes that each component part has a separate buffer zone, except component parts 4 (Imnati) and 5 (Pitshora), which are connected through one shared buffer zone. The IUCN World Heritage Panel noted that integrity could be improved if the buffer zone of component parts 4 and 5 would be joined with the nearby buffer zones of component parts 6 (Nabada) and 7 (Churia) to improve connectivity and river habitats for the critically endangered Sturgeon. In response to the Panel's remarks, the State Party provided supplementary information, in which it confirmed its position on how to ensure the integrity of the nominated property, including the feasibility to expand the buffer zones between component parts 4, 5, 6 and 7, as well as in western margins to include coastal dunes. An extension of Kolkheti National Park is already in preparation to include the lower reaches of the Rioni River and the marine section adjacent to its estuary. The State Party also committed to extending the northern buffer zone of component part 7 (Churia).

In summary, IUCN concludes that the nominated property includes the elements that are essential to express its Outstanding Universal Value whilst noting that there is both scope to further enhance and broaden the conservation of the nominated area by extending the coverage of protected areas beyond the nominated property. Opportunities also exist to further strengthen the buffer zone arrangements, through the submission of a minor boundary modification in the

near term, reflecting the commitments made by the State Party in this regard.

IUCN considers that the boundaries of the nominated property meet the requirements of the *Operational Guidelines*.

4.3 Management

The nominated property is located in protected areas that are managed by the Agency of Protected Areas of Georgia (APA), established in 2008, and reporting to the Ministry of Environmental Protection and Agriculture of Georgia (MEPA).

The centralised approach to protected area administration has ensured that all component parts receive adequate oversight and that there is a consistent approach to management of the component parts in relation to management planning and resource allocation. All protected areas are required to have legally binding Management Plans, which may not be overruled by other plans. Three out of four management plans have been finalized, two of which were adopted in 2019; therefore it will be necessary to complete the fourth one and to implement these quickly to ensure fully cohesive management. In terms of integrated management for the entire serial property, IUCN notes that a joint management plan is planned to be completed which should be finalized as soon as possible.

The establishment of an Internal Coordination Group consisting of key government stakeholders of all concerned protected areas will assist in coordination of the serial property. Distribution of resources between the nominated component parts to effect active cooperation between the administrations of the component parts and sharing of information and responsibilities concerning ongoing capacity building and support, conservation status, emergency response and identification of risks will also enhance the properties coordinated management, as will the development of the proposed 'Integrated Management and Monitoring Document'. According to the nomination dossier, there are 68 staff assigned to the component protected areas, with a further 14 posts planned.

Funding, in addition to government budgets, has come from a number of NGOs, international organizations, including the Global Environment Facility (GEF) and government aid including from Germany and Norway and will continue until 2024. It will be important to sustain funding beyond 2024 to ensure effective management of the nominated property.

Based on reviews and assessments by the field mission, IUCN considers that governance arrangements are in line with good protected area management practice that involves a participatory approach to planning and management. An adequate and skilled management force is in place backed by a clear and strong legal framework. The management of protected areas is also supported by further

management tools, including a communication strategy, ecotourism strategy and action plan and a waste management plan. There is a statutory process for management planning with each protected area having a Regional Advisory Council, which includes a wide range of stakeholders.

IUCN considers that the management of the nominated property meets the requirements of the Operational Guidelines.

4.4 Community

All land in the nominated property is publicly owned and managed by the Government of Georgia. There are no inhabitants or built structures in the nominated area and population density is very low in the buffer zone (only 25 families) and adjacent areas. Stakeholder involvement in planning and management of protected areas in Georgia is legally prescribed in the 1966 Law of Georgia on the System of Protected Areas and implemented through Regional Advisory Boards (specific for each PA), which bring together representatives of municipalities, institutions active in the region, resource users and other important stakeholders. The field evaluation did not detect community opposition to the nomination and reports strong community support for the protected areas.

4.5 Threats

Overall threats to the nominated property appear to be low with generally a low population density in proximity of the component parts. Currently tourism does not appear to be a threat to the component parts with relatively low numbers of visitation. In 2018, there were 110,000 individual visits to the four protected areas and this has been increasing over the last 10 years. Planning has focused on concentrating the majority of tourism in the buffer zones. Hunting is generally banned in Georgian protected areas.

Hydropower plants are not allowed in protected areas under Georgian protected area legislation and the nomination dossier indicates that there are no hydropower projects planned in any of the component parts. The existing hydro station, located several kilometres from the Kintrishi National Park boundary on the Chakvistali River, has modifications to allow trout migration.

Climate change projections for the Colchic region, based on observed trends since 1936, anticipate increased temperature and increased rainfall for the region. The lowland areas may be subject to increased flooding to which the wetlands are well adapted as long as the integrity of the wetlands and lowland forests is maintained.

The State Party has provided details on invasive species and development projects in supplementary information. Two non-native pests from East Asia, the Box Tree Moth (*Cydalima perspectalis*), and the Fungus (*Calonectria pseudonaviculata*) have damaged a large proportion of the Boxwood of the Colchic

rainforests in component part 1, but regrowth and recovery has been observed since 2018. The Agency of Protected Areas has initiated the preparation of an IAS management plan, which will be elaborated in cooperation with the Protected Areas Development Fund in 2020.

In terms of development projects, IUCN sought additional information on port developments in the vicinity of the nominated property. The State Party clarified, firstly, that the Poti Sea Port, operating since the early 1900s, is located more than 4.5 km from the nominated areas, which are also separated by rivers. Secondly, the State Party noted that the Kulevi Oil Terminal, opened in 2008, is located less than a kilometer away from the nominated areas, but confirmed that no impacts on the nominated areas were identified by the project's EIA. Strict monitoring and reporting is in place. Thirdly and lastly, the State Party clarified that the Ankalia Deep Sea Port project was cancelled in 2020. The State Party has committed to extending the northern buffer zone of component part 7 to provide an additional layer of protection.

IUCN concludes that, overall, threats to the nominated property currently appear to be low, and those threats that do exist are subject to appropriate management measures. However, IUCN underscores that any impacts from the nearby ports need to be monitored carefully. A rigorous EIA that includes an assessment of potential impacts on the values of the nominated property as well as an assessment of cumulative impacts would be required should a resumption of the Ankalia port project be considered in future.

In conclusion, IUCN considers that the integrity, protection and management of the nominated property meet the requirements of the Operational Guidelines.

5. ADDITIONAL COMMENTS

5.1 Consideration in relation to serial properties

a) What is the justification for the serial approach?

The seven component parts cover discontinuous areas of mires and forests in different stages of development. Lowland mires and surrounding lowland Colchic forests included in the protected areas of component parts 2-7 are not contiguous to the mires and forests in different stages of development. The same applies to component part 1 whose mires and Colchic rainforests of different elevations are not adjacent to or contiguous with the mires and forests found elsewhere and in the other component parts. The wetland ecosystems are naturally restricted and warrant a serial approach to encompass the full range of values.

b) Are the separate component parts of the nominated property functionally linked in relation to the requirements of the Operational Guidelines?

The ecosystems and habitats represent an altitudinal range from sea level in the Colchic lowlands to the alpine meadows. The component parts are in proximity to each other spanning 60 km and are subject to the

same climatic and geological processes. These factors determine the functional linkages as evidenced by the common vegetation found in the component parts, which include key relict species from the Tertiary period, high levels of endemism and important habitats of globally threatened species as defined by the IUCN Red List of Threatened Species.

c) Is there an effective overall management framework for all the component parts of the nominated property?

The National Advisory Council for the World Heritage property will continue to assist in management coordination of the nominated property. It also provides support in fundraising, capacity building, stakeholder engagement, promotion of sites and support in addressing and mitigating threats. Each protected area will have an internal coordination group and World Heritage focal point. The organizational structure and management approach of the protected areas are consistent across all component parts. Based on the management of the protected areas, an Integrated Management and Monitoring Document with legal status will include triennial operational plans, annual action plans and resourcing to assist in the integrated management and monitoring of the nominated property.

6. APPLICATION OF CRITERIA

Colchic Rainforests and Wetlands (Georgia) has been nominated under natural criteria (ix) and (x).

Criterion (ix): Ecosystems/communities and ecological/biological processes

The nominated property comprises ancient Colchic rainforests with their characteristic vertical zoning and ecological succession, and wetlands, particularly Colchic mires, with their supporting processes and succession. A unique combination of influences from three mountain ranges to the north, east and south, with the Black Sea to the west, plus high precipitation and a narrow range in seasonal temperature variations results in conditions that have created outstandingly complex and diverse forest structures, peatland accumulations, high levels of endemism and intra species diversity.

The Colchic rainforests are highly humid temperate deciduous rainforests, and among the oldest nemoral broad-leaved forests globally. While they are distinguished from other temperate forests by their rich evergreen understoreys, they also display a remarkably dense mosaic of forest types, with 23 forest associations co-existing within an area of only about 200 km². Together with the Hyrcanian Forests, they are the most important relicts of Arcto-Tertiary forests in western Eurasia. Their peculiar and diverse community, which has survived the Pleistocene glacial cycles, includes a multitude of relict and endemic species. It reflects exceptionally constant climatic conditions and is an invaluable example of the manifold long-term evolutionary processes of forest biota over at least 10-15 million years.

The extensive paludified areas along the Black Sea coast are a result of evolutionary and ecological processes related to climate variability in an ancient warm-temperate ecoregion continuously vegetated since the Tertiary period. The exceptional character of the mires has led to the recognition of a distinct Colchic mire region. Their percolation bogs are of particular global importance as they do not exist anywhere else in the world. They can be considered the simplest and hence typical mire, due to precipitation which ensures an almost permanent water supply. Percolation bogs are essential for the functional understanding of all mires, and hence of terrestrial carbon storage in general.

IUCN considers that the nominated property meets this criterion.

Criterion (x): Biodiversity and threatened species

The nominated property represents a distinctive area of outstanding biodiversity within the wider Caucasus Global Biodiversity Hotspot, where a rich flora and fauna adapted to warm-temperate and extremely humid climate is concentrated. It belongs to one of the two most important refuge areas of Arcto-Tertiary geoflora in western Eurasia. The nominated property is characterized by a high level of floral and faunal diversity with significant numbers of globally threatened species and relict species, which survived the glacial cycles of the Tertiary.

The nominated property is home to approximately 1,100 species of vascular and non-vascular plants, as well as almost 500 species of vertebrates, and a high number of invertebrate species. It hosts an extremely high proportion of endemic species for a non-tropical, non-island region. There are 149 species of plants with a restricted range and almost one third of mammals, amphibians and reptiles are endemic. The contribution of endemic species to amphibians, reptiles and mammals of the region is at 28%.

Forty-four globally threatened or near-threatened species of vascular plants, 50 of vertebrates, and eight of invertebrates have been recorded in the Colchic Rainforests and Wetlands. The nominated property also harbors sturgeon species, including the Colchic Sturgeon (*Acipenser colchicus* - CR), and serves as a key stopover for many globally threatened birds that migrate through the Batumi bottleneck.

IUCN considers that the nominated property meets this criterion.

7. RECOMMENDATIONS

IUCN recommends that the World Heritage Committee adopts the following draft decision:

The World Heritage Committee,

1. Having examined Documents WHC/21/44.COM/8B and WHC/21/44.COM/INF.8B2;

2. Inscribes the **Colchic Rainforests and Wetlands (Georgia)** on the World Heritage List under natural criteria (ix) and (x);

3. Adopts the following Statement of Outstanding Universal Value:

Brief synthesis

The property is situated in Georgia, within the Autonomous Republic of Adjara as well as the regions of Guria and Samegrelo-Zemo Svaneti. It comprises a series of seven component parts, which are located close to each other within an 80 km long corridor along the warm-temperate and extremely humid eastern coast of the Black Sea. They provide an almost complete altitudinal series of the most typical Colchic ecosystems running from sea level to more than 2,500 m above sea level. The main ecosystems are ancient deciduous Colchic rainforests and wetlands – particularly percolation bogs and other mire types of the Colchic mire region, a distinct mire region within Europe and Eurasia.

The Colchic Rainforests and Wetlands are relict forests, which have survived the glacial cycles of the ice age. The extremely humid nemoral broad-leaved rainforests comprise a highly diverse flora and fauna, with very high densities of endemic and relict species. This is the result of millions of years of uninterrupted evolution and speciation processes within the Colchic Pliocene refugium. The peatlands of the Colchis mire region, which are closely interlinked with lowland Colchic rainforests, also reflect the mild and extremely humid conditions there. These allow for the existence of percolation bogs, the simplest functional type of mires, only occurring in the Colchis mire region. In addition to percolation bogs, there is a complete series of other succession stages of mire development in the Colchic wetlands.

Criteria

Criterion (ix)

The property comprises ancient Colchic rainforests with their characteristic vertical zoning and ecological succession, and wetlands, particularly Colchic mires, with their supporting processes and succession. A unique combination of influences from three mountain ranges to the north, east and south, with the Black Sea to the west, plus high precipitation and a narrow range in seasonal temperature variations results in conditions that have created outstandingly complex and diverse forest structures, peatland accumulations, high levels of endemism and intra species diversity.

The Colchic rainforests are highly humid temperate deciduous rainforests, and among the oldest nemoral broad-leaved forests globally. While they are distinguished from other temperate forests by their rich evergreen understoreys, they also display a remarkably dense mosaic of forest types, with 23 forest associations co-existing within an area of only about 200 km². Together with the Hyrcanian Forests, they are the most important relicts of Arcto-Tertiary forests in western Eurasia. This peculiar and diverse

community, which has survived the Pleistocene glacial cycles, includes a multitude of relict and endemic species. It reflects exceptionally constant climatic conditions and is an invaluable example of the manifold long-term evolutionary processes of forest biota over at least 10-15 million years.

The extensive paludified areas along the Black Sea coast are a result of evolutionary and ecological processes related to climate variability in an ancient warm-temperate ecoregion continuously vegetated since the Tertiary period. The exceptional character of the mires has led to the recognition of a distinct Colchis mire region. Their percolation bogs are of particular global importance as they do not exist anywhere else in the world. They can be considered the simplest and hence ideal-typical mire, due to almost permanent water supplied exclusively by precipitation. Percolation bogs are essential for the functional understanding of all mires, and hence of terrestrial carbon storage in general.

Criterion (x)

The property represents a distinctive area of outstanding biodiversity within the wider Caucasus Global Biodiversity Hotspot, where a rich flora and fauna adapted to warm-temperate and extremely humid climate is concentrated. It belongs to one of the two most important refuge areas of Arcto-Tertiary geoflora in western Eurasia. The property is characterized by a high level of floral and faunal diversity with significant numbers of globally threatened species and relict species, which survived the glacial cycles of the Tertiary.

The property is home to approximately 1,100 species of vascular and non-vascular plants, as well as almost 500 species of vertebrates, and a high number of invertebrate species. It hosts an extremely high proportion of endemic species for a non-tropical, non-island region. There are 149 species of plants with a restricted range and almost one third of mammals, amphibians and reptiles are endemic. The contribution of endemic species to amphibians, reptiles and mammals of the region is at 28%.

Forty-four globally threatened or near-threatened species of vascular plants, 50 of vertebrates, and 8 of invertebrates have been recorded in the Colchic Rainforests and Wetlands. The property also harbors sturgeon species, including the Colchic Sturgeon, and serves as a key stopover for many globally threatened birds that migrate through the Batumi bottleneck.

Integrity

The component parts of the Colchic Rainforests and Wetlands have been selected based on a careful regional analysis. The boundaries of component parts incorporate attributes necessary to convey the Outstanding Universal Value, mostly following natural features such as mountain ridges. The component parts cover most of the existing mires of the Colchis mire region, and the best preserved and most representative rainforests. The property includes more than 90% of the altitudinal range at which Colchic rainforests occur, and the great majority of typical

forest associations. They also comprise a complete successional series of the mires characteristic of the Colchis mire region. The property as a whole holds the great majority of the Colchic flora and fauna, and an even greater proportion of the endemic plant species found in the wider region is concentrated here.

There were significant losses to the Colchic rainforests and mires across the Colchic region until the late 20th Century. In contrast, the forests and mires inside the property have remained fully intact both structurally and functionally, as shown by their community structure and ecological processes. While some of the Colchic mires were slightly degraded by nearby draining in the past, their current hydrological intactness and resilience is ensured by their dependence on atmospheric precipitation, high mire oscillation capacity, the stabilizing effect of the nearby sea, and extensive upstream buffer zones.

Protection and management requirements

The component parts of the property are effectively protected against local anthropogenic threats. Only small parts of some of the buffer zones are slightly affected by an acceptable level of traditional natural resource use. All the component parts of the property, and all but 208 ha of the buffer zone, are situated on state-owned land within legally designated protected areas. These are either strictly protected areas (IUCN Protected Area category Ia), or those zones of National Parks (IUCN Protected Area category II) that afford the highest levels of protection. Only a very small part of the property belongs to a protected landscape (IUCN Protected Area category V). The boundaries of these protected areas are known and accepted by the local population.

The protected areas that cover the property are managed by the Agency of Protected Areas of the Ministry of Environmental Protection and Agriculture of Georgia, through its local Protected Area Administration. Sustainably funded integrated management of the entire property is required in addition to the implementation of comprehensive management plans for all four protected areas. Coordination of component areas is enabled as all are managed by the Agency of Protected Areas. An integrated management framework of the property has been developed and requires finalization.

There is scope for the protected areas to be expanded further, based on strategic conservation planning using Key Biodiversity Areas, which may provide an

additional layer of protection to the property, and possibly allow for future extensions to both the property and buffer zones to be considered. This is particularly important in view of existing and potential developments in proximity of the property and along the Black Sea coast. Any development projects need to be subject to rigorous Environmental Impact Assessment procedures, and should not go ahead in case of potential negative impacts on the property's Outstanding Universal Value.

4. Commends the State Party for its commitment to expand the buffer zones of the property and to consider further enhancement of the conservation of the property by potentially adding additional areas, especially to protect critically endangered sturgeon through plans for a new protected area adjacent to the property;

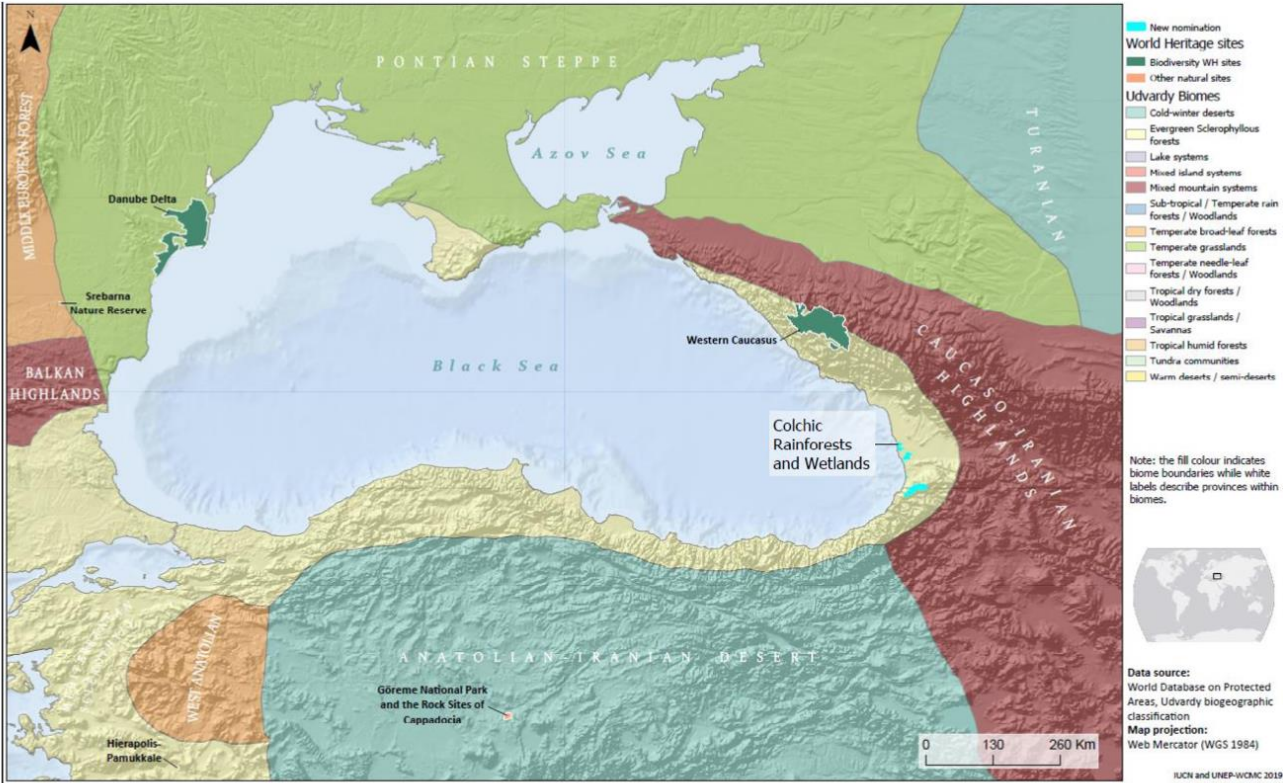
5. Strongly encourages the State Party to submit the proposed extensions of the buffer zones of the Churia component part towards the North and of the Nabada component part to support the conservation of the sturgeon population as a minor boundary modification, if possible, by **1 February 2023**;

6. Requests the State Party to

- a) Continue to assess the feasibility of expanding the buffer zones around component parts 4, 5, 6, and 7 to ensure that they have higher connectivity, and to provide further details of the conclusions of this feasibility study to the World Heritage Centre, for review by IUCN, by **1 December 2022**,
- b) Continue to assess the feasibility of expanding the buffer zone to protect coastal dunes that provide a barrier between the unique percolation mires and the Black Sea,
- c) Finalize the Joint Management Plan for the entire serial property as a matter of priority and submit it to the World Heritage Centre for review by IUCN.

7. Acknowledges with thanks the support provided by donors and international development agencies to the protection and management of the property and encourages these donors to maintain and, if feasible, strengthen this support to contribute to the effective management and governance of this property in the long term.

Map 1: Location of the nominated property



Map 2: Nominated property and buffer zone

