Western Caucasus

SITE INFORMATION

Country: Russian Federation
Inscribed in: 1999
Criteria: (ix) (x)

Site description:
The Western Caucasus, extending over 275,000 ha of the extreme western end of the Caucasus mountains and located 50 km north-east of the Black Sea, is one of the few large mountain areas of Europe that has not experienced significant human impact. Its subalpine and alpine pastures have only been grazed by wild animals, and its extensive tracts of undisturbed mountain forests, extending from the lowlands to the subalpine zone, are unique in Europe. The site has a great diversity of ecosystems, with important endemic plants and wildlife, and is the place of origin and reintroduction of the mountain subspecies of the European bison. © UNESCO
**SUMMARY**

**2014 Conservation Outlook**

**Significant concern**

While the values of the site have been relatively well-protected until now thanks to the site’s inaccessibility, plans for the large-scale development of tourism and skiing resorts and supporting infrastructure put the property’s Outstanding Universal Value at immediate and serious risk. These plans are accompanied by a significant weakening of the legal framework for the conservation of this and other sites in the Russian Federation. All planned projects, if implemented, would lead to a dramatic loss in biodiversity value of parts of the property in the short term. In combination with the inefficient conservation regime and the lack of a sustainable tourism strategy, this will likely trigger a long term degradation process of other values through threats like logging, poaching and uncontrolled visitation in the long term.

**Current state and trend of VALUES**

**Low Concern**

**Trend: Deteriorating**

As far as the current status of the ecosystem and biodiversity values are known, they still appear to be relatively intact, thanks to the relative inaccessibility of the area until recently. However, most of them show a deteriorating trend or are predicted to deteriorate in the near future, because of ongoing and planned infrastructure developments in the property. The biodiversity values associated with avifauna and mammalian fauna of the entire property require an assessment and monitoring of their conservation status.

**Overall THREATS**

**Very High Threat**

The values of the property are under serious and increasing threat from improved access, tourism infrastructure development and use, and also
potentially logging. The planned construction of touristic and mountain skiing facilities at Lagonaki Plateau, a highly sensitive and important part of the property, will pose a very serious threat to its OUV.

**Overall PROTECTION and MANAGEMENT**

**Serious Concern**

The current protection and management regime of the property is ineffective in relation to the main current and emerging threats (development of tourism and mountain skiing infrastructure, unsustainable tourism use, and potentially unsustainable logging). This ineffectiveness is primarily caused by an apparent lack of political will to prioritize conservation, inadequate legal framework, and fragmented and overcomplicated institutional setup for management, as well as a number of secondary weaknesses.
FULL ASSESSMENT

Description of values

Values

World Heritage values

► Warm-temperate forest ecosystems
  Criterion: (ix)

Key part of Colchic tertiary refuge of warm-temperate forest ecosystems. Rich vertical zonation of forest belts, subalpine, alpine and nival ecosystems from 250 to ca. 2,000 m a.s.l., with predominantly mixed oak woods, beech-fir woods, dark fir woods with Caucasian spruce, mountain birch and maple forests, subalpine and alpine grass and rhododendron communities, as well as alpine shrub and short-grass communities. These ecosystems, which also harbor a rich fauna and are part of the Caucasus global biodiversity hotspot, are among the least affected by humans in Europe, due to their inaccessibility (UNEP-WCMC, 2011).

► Subalpine, alpine and nival ecosystems
  Criterion: (ix)

Rich vertical zonation of subalpine, alpine and nival ecosystems from ca. 2,000 to 3,360 m a.s.l., with predominantly subalpine and alpine grass and rhododendron communities, as well as alpine shrub and short-grass communities. Together with the above, these ecosystems are part of the Caucasus global biodiversity hotspot, and among the least affected by humans in Europe (UNEP-WCMC, 2011).

► Raptor migration bottleneck
  Criterion: (x)
Mountain passes are an important migration bottleneck for various Eurasian raptor species, including globally threatened species (e.g. Imperial Eagle Aquila heliaca VU) (UNEP-WCMC, 2011).

**Plant species diversity and endemism**

Criterion:(x)

1,580 species of vascular plants, one third of which are endemic to the Caucasus. Many additional ones are relict species, or globally/nationally threatened (WHC, 1999).

**Avifauna**

Criterion:(x)

Property is part of Caucasus Endemic Bird Area (BirdLife International, 2012), with populations of Caucasian Black Grouse (Tetrao mlokosiewicz NT) Caucasian Snowcock (Tetraogallus caucasicus LC) and at least one satellite population of Great Rosefinch (Carpodacus rubicilla), a species of which the next area of distribution is located in Central Asia, as well as a rich raptor fauna (both resident and on migration).

**Mammal fauna**

Criterion:(x)

81 species of mammals, including carnivores (e.g. European Mink Mustela lutreola, Brown Bear Ursos arctos, Lynx Lynx lynx, Wolf Canis lupus), large herbivores (including Caucasian Red Deer Cervus elaphus maral, Western Tur Capra caucasica EN, and Caucasian Chamois Rubicapra rubicapra caucasica). Reintroduced population of European Bison Bison bonasus (WHC, 1999).

**Herpetofauna**

Criterion:(x)

Two globally threatened viper species which are endemic to the Caucasus (Vipera kaznakovi EN and V. dinniki VU), one globally threatened sub-species of tortoise and seven additional species of herpetofauna (UNEP-WCMC, 2011).
Assessment information

Threats

Current Threats

High Threat

The property has been relatively well protected by its inaccessibility in the past but has become much more accessible recently, due to new roads and infrastructure development. This has already increased threats from habitat loss/degradation by infrastructure development, disturbance, littering and fires through uncontrolled visitation, and unsustainable logging.

Tourism/ Recreation Areas

Very High Threat

Inside site

The continuing construction, maintenance and use of the “Biosphere Centre” as a recreational facility and other observed recreational facilities with their supporting infrastructure, and uncontrolled touristic uses, threaten the ecosystem and biodiversity values in those (rather limited) parts of the property in their vicinity (IUCN, 2012a). Various works have been carried out in 2013, including cable car construction at “Biosphere centre” and upgrade of Babuk Aul forest road (SOC, 2014).

Roads/ Railroads

Low Threat

Inside site

Outside site

The continued existence, maintenance and use of the Lunnaya Polyana Road, including possible secondary effects of improved accessibility, represents a locally significant threat to the values of the property, which is only partly controlled by existing access restrictions (IUCN, 2012a).
Logging/ Wood Harvesting
High Threat
Inside site

Logging (including illegal and nominally legal “sanitary” logging without clear justification) was reported to be a continuing if less serious problem in 2010, particularly in the Nature Monuments and Nature Park in the Adygean part of the property (Debonnet & Lethier, 2010). Considering the improved access to the property through road construction and the challenges to protection enforcement, this remains a high threat.

Commercial hunting
Data Deficient
Inside site

Reportedly a serious problem in the 1990s and reduced since (UNEP-WCMC, 2011), but no up-to-date information available.

Fire/ Fire Suppression
Low Threat
Inside site
Outside site

Some evidence of localized forest fires reported in 2008 (Rao & Lethier, 2008), but apparently not a major threat.

Potential Threats
Very High Threat

The trend to improved accessibility and intensified use of the property, particularly for mountain skiing and other forms of tourism, is likely to accelerate in the near future, particularly in relation to the infrastructure built for the Sochi 2014 Olympic Games and the planned construction of touristic and mountain skiing facilities at Lagonaki Plateau, a highly sensitive and important part of the property.

Tourism/ Recreation Areas
Very High Threat
Inside site

Lagonaki plateau has a high ecological value and hosts an outstanding flora biodiversity, thereby critically contributing to the OUV of the property under both World Heritage criteria (ix) and (x). The current plans to develop tourist and mountain skiing facilities on Lagonaki plateau are therefore putting the OUV of the property under threat (IUCN, 2012a). The most recent State Party report (2014) notes that a proposal for boundary modifications is being prepared to exclude part of the Lagonaki plateau from the site in order to permit construction of large-scale tourism facilities there (SOC, 2014).

▶ Roads/ Railroads

High Threat
Inside site
Outside site

Road construction and use in combination with any extension of touristic use inside the property enabled by such roads (e.g. at the “Biosphere Centre” recreational facility) would threaten the integrity of ecosystem and biodiversity values of the property. It might also increase access for illegal logging activities (IUCN, 2012a).

▶ Tourism/ visitors/ recreation

Low Threat
Inside site

In the absence of a functional tourism impact monitoring system or sustainable tourism strategy (IUCN, 2012a), the potential impact of tourism on the values of the property (disturbance, habitat destruction through facilities development, collection of biodiversity, potentially illegal hunting) are significant but will probably be rather localized.

Protection and management

Assessing Protection and Management

▶ Tourism and interpretation

Serious Concern
The development of large scale tourism and skiing facilities is currently the main threat to the OUV of the property (IUCN, 2012a). An integrated sustainable tourism development strategy is urgently needed, and interpretation efforts lag behind tourism development activities.

▶ **Legal framework and enforcement**
  **Serious Concern**

The legal framework is ineffective as it allows the development of major tourism infrastructure inside the property, and with potentially catastrophic consequences for its OUV (IUCN, 2012a). The Russian Federation lacks a framework law to define the unified management of World Heritage sites, which often consist of several protected areas of various designations (Debonnet & Lethier 2010). The recently adopted Federal Law N°406-FZ (28 December 2013) adapts the Federal Law on Specially Protected Areas, further weakening the protection status of strict nature reserves, including parts of the property (SOC, 2014).

▶ **Monitoring**
  **Data Deficient**

No information about monitoring system available.

▶ **Research**
  **Data Deficient**

Inventorying, mapping and some research on biodiversity have been going on since the formation of the Caucasus Biosphere Reserve, the main component protected area of the property, in 1924. Between 1981 and 1996, 15 volumes on ecosystem dynamics in the Biosphere Reserve were collated (UNEP-WCMC, 2011). No information about the current procedure and activities in the research field are available.

▶ **Relationships with local people**
  **Data Deficient**

While local government authorities including the government of Adygea Autonomous Republic continue to cooperate with and influence decisions of
the property, information about relationships with local people is missing.

► Integration into regional and national planning systems
**Serious Concern**

The recent Federal Law No. 365-FZ on “special economic zones in the Russian Federation” and the Order of the Government of the Russian Federation on development of infrastructure within the special economic zone at Lagonaki Plateau show that the objective “conservation and management of the OUV of the property” is not integrated and mainstreamed into regional and national planning systems (EWNC, 2012b, IUCN, 2012a).

► Management system
**Some Concern**

A management plan for the entire property has been approved in 2009, but is lacking an integrated sustainable tourism strategy, is very general, and is not being fully implemented (Debonnet & Lethier, 2010). It has been recommended to complement this management plan by more specific operational plans. The management system of the property has to cope with the challenge that it consists of several PAs of various designations and subordinations, which makes application of a unified management approach difficult.

► Management effectiveness
**Some Concern**

No systematic management effectiveness assessment for the property has been published recently. The management of the Caucasus Biosphere Reserve appears to be generally effective, while the management of the nature monuments and nature park inside Adygea Autonomous Republic and the relatively new Sochi National Park is considered less effective (Debonnet & Lethier, 2010). It appears that the management authorities of the property lack the necessary power to tackle the most serious threats to the property’s OUV.

► Implementation of Committee decisions and recommendations
**Serious Concern**
The 2012 State of Conservation Report highlighted the fact that key recommendations and information requests of the World Heritage Committee, particularly of Decisions 32 COM 7B.25, 34 COM 7B.24 and 35 COM 7B.24 were not met by the State Party, such as regarding the development of tourism and mountain skiing facilities on Lagonaki Plateau, the development of other infrastructure inside and immediately adjacent to the property, the clarifications of the boundaries, monitoring programmes, and the establishment of a sustainable tourism strategy (IUCN, 2012a). As of 2014 there has been no further progress with the implementation of the World Heritage Committee decisions and recommendations (SOC, 2014)

**Boundaries**

**Serious Concern**

The most recent SOC report (2014) notes that “there remains no buffer zone around the property and the situation of the buffer zone on the northern boundary of the property has not yet been clarified”. The State Party has also indicated that a boundary modification proposal is being prepared to exclude part of Lagonaki plateau from the property to allow for major tourism infrastructure development (SOC report, 2014).

**Sustainable finance**

**Data Deficient**

No information available.

**Staff training and development**

**Data Deficient**

The only component PA with significant staff is the Caucasus Biosphere Reserve, which had 199 staff including 45 scientific staff in 1997 (UNEP-WCMC, 2011). It is unclear if there are staff development or training programmes at the property.

**Sustainable use**

**Some Concern**

The Caucasus Biosphere Reserve as the core protected area of the property
excludes resource use, following the Soviet “Zapovednik” (Strict Nature Reserve) approach (MNRE of RF, 2012). It has been effectively managed. Logging has been reported from some of the Nature Monuments and the Nature Park in the Adygean part of the property (Rao & Lethier, 2008), but it is unlikely that this was planned as a sustainable use. There appears to be no sustainable use (or tourism) strategy for the property.

▶ Education and interpretation programs
   Data Deficient

   An education/interpretation unit was formed in 1997 and some programmes (such as an annual March of the Parks) are being carried out (MNRE of RF, 2012), but no details about such activities are available.

Overall assessment of protection and management
   Serious Concern

   The current protection and management regime of the property is ineffective in relation to the main current and emerging threats (development of tourism and mountain skiing infrastructure, unsustainable tourism use, and potentially unsustainable logging). This ineffectiveness is primarily caused by an apparent lack of political will to prioritize conservation, inadequate legal framework, and fragmented and overcomplicated institutional setup for management, as well as a number of secondary weaknesses.

▶ Assessment of the effectiveness of protection and management in addressing threats outside the site
   Some Concern

   The property has been relatively well-protected against outside threats, because of its inaccessibility. This is now changing with large-scale infrastructure projects and the ongoing opening to tourism. Since there appear to be no management activities or strategies focused on outside threats, this may turn into a clear management weakness in the future.

▶ Best practice examples

   In 2010, a decree was signed by the Prime Minister to establish an ecological
polygon, creating a strictly protected corridor linking the property with Teberdinsky Strict Nature Reserve (TSNR), thus creating a continuous strict protected area over a length of 200 km in the Caucasus mountains. The creation of large continuous protected areas is important for the long-term success of conservation measures aimed at the integrity of ecosystem and biodiversity values (particularly large mammals) of the property, also in the face of imminent climate change impacts. However, corridors will only be effective if the core PAs that they link are managed effectively. This is currently not the case in this property.

### State and trend of values

#### Assessing the current state and trend of values

**World Heritage values**

- **Warm-temperate forest ecosystems**
  - **Low Concern**
  - **Trend:** Deteriorating

  The inaccessibility of the area has ensured a high integrity of its forest ecosystems until recently, but these are now (since the turn of the century) at increasing risk of being degraded following new infrastructure development. A limited but significant degree of logging has also been observed (Debonnet & Lethier, 2010).

- **Subalpine, alpine and nival ecosystems**
  - **Low Concern**
  - **Trend:** Deteriorating

  The inaccessibility of the area has ensured a high integrity of its subalpine, alpine and nival ecosystems until recently, but these are now at increasing risk of being degraded following new infrastructure development, particularly for tourism and mountain skiing such as on Lagonaki Plateau (IUCN, 2012a).

- **Raptor migration bottleneck**
  - **Data Deficient**
  - **Trend:** Data Deficient
No status or trend information about the integrity of the functioning of the property as a raptor migration bottleneck is available.

► **Plant species diversity and endemism**  
   **Low Concern**  
   **Trend:** Deteriorating

Plant species diversity including that of globally threatened, endemic and relict species is still relatively intact, but likely to become increasingly threatened if construction projects in key local centres of plant diversity such as Lagonaki Plateau, Mt Fisht and Mt Oshten areas go ahead.

► **Avifauna**  
   **Good**  
   **Trend:** Stable

None of the restricted-range avifauna of the Caucasus Endemic Bird Area, to which the property belongs, is considered globally threatened. Other key components of the property’s avifauna also appear to be generally intact (BirdLife International, 2012).

► **Mammal fauna**  
   **Data Deficient**  
   **Trend:** Data Deficient

The mammal fauna was reduced drastically by poaching before the inscription of the property – between 1990 and 1997 the populations of Red Deer, Chamois and Bison decreased by 62% and that of Western Tur by 46% (UNEP-WCMC, 2011). No comparably steep decline has been reported since inscription, but results of a 1999-2008 comparative wildlife study have not been submitted to the World Heritage Committee (Decision 33 COM 7B.29). Therefore, the status and trend of mammals is assessed as data deficient.

► **Herpetofauna**  
   **High Concern**  
   **Trend:** Deteriorating

Among key species of the property’s herpetofauna, the Caucasian Viper Vipera kaznakovi EN overlaps with the lower parts of the property, where its
population appears to be small and only marginally viable (MNRE of RF, 2012). Since this species (and to a lesser degree other herpetofauna such as Dinnik’s Viper V. dinniki VU) are threatened by habitat loss and persecution (IUCN, 2012b), and since several amphibian species may be threatened by water pollution (Cartwright, 2010), the overall trend of this biodiversity value of the property is inferred to be deteriorating.

Summary of the Values

▶ Assessment of the current state and trend of World Heritage values
Low Concern
Trend: Deteriorating

As far as the current status of the ecosystem and biodiversity values are known, they still appear to be relatively intact, thanks to the relative inaccessibility of the area until recently. However, most of them show a deteriorating trend or are predicted to deteriorate in the near future, because of ongoing and planned infrastructure developments in the property. The biodiversity values associated with avifauna and mammalian fauna of the entire property require an assessment and monitoring of their conservation status.

Additional information

Key conservation issues

▶ Insufficient resources and capacity
National

The staff of the various PAs that constitute the property have insufficient resources and capacity to manage the property effectively (UNEP-WCMC, 2011). This concerns monitoring, communication and transport equipment and possible operational budgets. The issue is particularly serious for those parts outside the Caucasus Biosphere Reserve.
Lack of sustainable tourism planning
Local

Both the infrastructure developed for the Sochi 2014 Olympic Games and the planned tourism and skiing infrastructure developments will lead to a sharp increase of visitation to the property (IUCN, 2012a). A sustainable tourism strategy is needed to ensure that this increase in tourism is managed in a sustainable way and does not increase threats to the property.

Fragmented and overcomplicated management system without a functional management authority for the entire property
Local

The property consists of a Biosphere Reserve, a National Park, a nature Park, and three Nature Monuments and lacks one central administration that is responsible for the entire property (UNEP-WCMC, 2011). Apart from the fact that the latter categories do not afford a sufficient level of protection to the property, this fragmentation poses a serious challenge to its overall management.

Lack of a unified legal basis for the management of natural World Heritage sites in the Russian Federation
National

There is currently no national law establishing common standards for the overall management and institutional setups for all natural World Heritage sites on the territory of the Russian Federation. This also complicates the establishment of an effective management framework at this particular property (Debonnet & Lethier, 2010).

Benefits

Understanding Benefits

Does management of the site provide jobs (e.g. for managers or rangers)?

The Reserve offered 199 jobs in 1997 (UNEP-WCMC, 2011) in a remote area
with little population. This has probably not changed significantly since, although there may be room for increasing the number of jobs in the property.

▶ **Collection of wild plants and mushrooms**

Wild plant collection is currently not permitted, at least in the Caucasus Biosphere Reserve. However, sustainable wild plant collection schemes could contribute to creating income for local businesses and indirectly (through fees) to the protected areas constituting the property themselves.

▶ **Sacred natural sites or landscapes**

Because of its inaccessibility, the property has retained considerable wilderness values until the present. This also significantly contributes to its OUV.

▶ **Outdoor recreation and tourism**

Mountain tourism is practiced at a moderate intensity already on site. If developed in a responsible way, the site may offer a unique opportunity to experience an undisturbed high-mountain landscape including its wildlife. This opportunity may be lost if large-scale infrastructure developments are carried out as planned.

▶ **Importance for research**

The site has already contributed significantly to the overall scientific understanding of the Western Caucasus (UNEP-WCMC, 2011). If conserved effectively, it may also provide one of a few case studies of an undisturbed temperate forest/mountain ecosystem, which might also function as a reference for ecosystem restoration efforts elsewhere.

▶ **Collection of genetic material**

The exceptional diversity of endemic, relict and globally threatened plants in parts of the property (e.g. Lagonaki Plateau) may offer the possibility for collecting genetic material for a wide range of uses.
Summary of benefits

Although the property already offers multiple benefits to the adjacent population, the citizens of the Russian Federation and the global scientific and conservation community, the potential for a systematic and sustainable exploration and use of its various ecosystem services is by far not fully exploited currently. A sustainable management regime aimed at maximizing these uses (nature-based tourism, knowledge building) may well have the potential to generate economic benefits far exceeding those of large scale tourism facilities driven by short-term economic interest.

Projects

Compilation of active conservation projects

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<th>Project duration</th>
<th>Brief description of Active Projects</th>
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<td>1</td>
<td>WWF Russia</td>
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<td>Leopard reintroduction project Northern Caucasus</td>
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Compilation of potential site needs

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<tr>
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<th>Brief description of potential site needs</th>
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<tr>
<td>1</td>
<td>N.A.</td>
<td>Development of a sustainable tourism strategy</td>
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<td>2</td>
<td>N.A.</td>
<td>Establishment of a comprehensive monitoring system for key biodiversity values across the entire property</td>
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<td>3</td>
<td>N.A.</td>
<td>Scoping study on potential economic values of ecosystem services and ways for their optimization</td>
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<td>4</td>
<td>N.A.</td>
<td>Training programme for PA staff of the property in general PA management</td>
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# REFERENCES

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