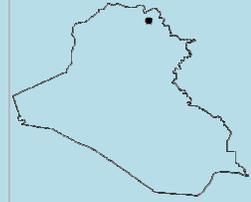


Rawanduz Gorge (Gali Ali Beg, Bekhal Falls & Jundyan) (E12)



Surveyed in winter and summer of 2007 and summer of 2008.

Admin Area: Erbil

Coordinates: N 36° 37' 53" E 44° 26' 46"

Area: 881 ha

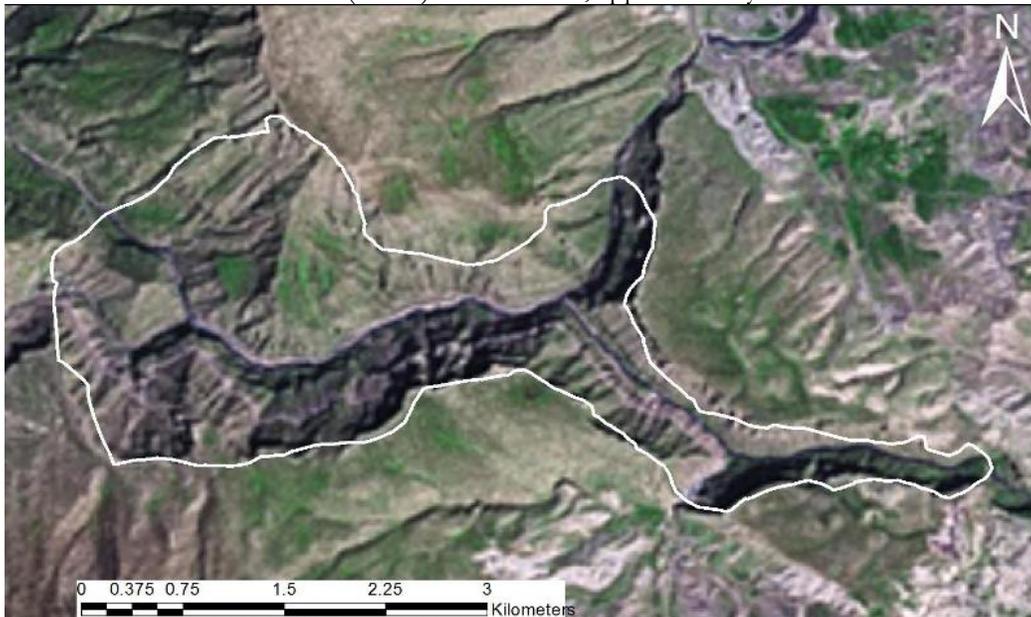
Altitude: 570-712 m

IPA Criteria: Under assessment

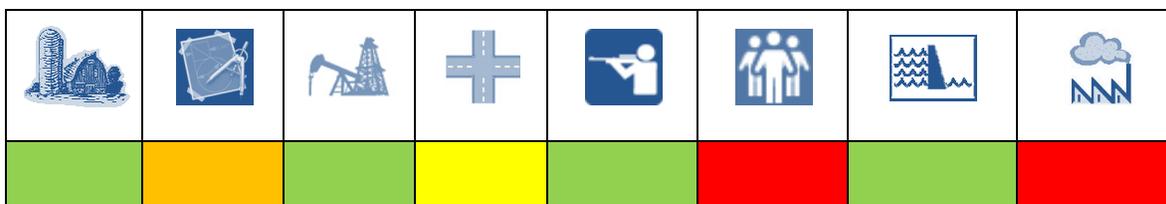
Status: Unprotected

Ecoregion: Zagros Mountains Forest Steppe (PA0446)

Directional information: This site is located about 62 km northeast of Erbil City. The nearest large settlements are the towns of Soran (Diana) & Rawanduz, approximately 9 km northeast of the site.



(Left) Gali Ali Beg (K. Ararat, 2010); (Right) Bekhal Falls (A. Bachmann, 2009)



Site Description: This site centers on the deep Rawanduz Gorge and three resort areas: Gali Ali Beg, which has a large waterfall and plunge pool; Bekhal Falls, 7 km upstream, a large stream issuing from near the base of the mountain; and Jundyan, on the slope of Handren Mountain located on the main road between Choman and Soran, it enjoys a spring which dries periodically and reappears during spring. All resort areas are on side-spurs to the main Rawanduz Gorge. The area features high cliffs and fast flowing streams and rivers. At Gali Ali Beg the plunge pool and the banks downstream are hardened with stone and cement. Downstream of the main resort area is a site developed for picnics, restaurants, and shops. Water quality sampling was done at the pool and downstream on the west bank, where the stream is approximately 7m across. The site is close to the villages of Majidawa, Balakian, Basher and Belangr. Bekhal Falls is overlooked by the Pank Tourist Resort, which was opened in 2007 and is continuing to be developed on the bluff above. Numerous pipes (some in use, some defunct) take water from the falls and there is considerable development, in, around and above the falls by shops and small restaurants that cater to tourists. Water quality sampling was done where the water issues from the mountain side and downstream of the main tourist areas.

The Rawanduz Gorge itself that connects these two resort areas contains the Rawanduz River, which collects water coming from Hagi Omran, Choman and the Halgurd-Sakran Mt areas and flows approximately 23 km to the west-northwest where it joins the Greater Zab River. The gorge runs roughly east to west and is very deep with often sheer cliff walls. The road from Gali Ali Beg to the towns of Rawanduz and Soran (also known as Diana) crosses the gorge downstream from Gali Ali Beg and hugs the north base of the gorge. This road was built in the 1930s by the British to open up the area to the north for “trade and administration” (Hamilton, 1930). A second road upstream from Gali Ali Beg to Bekhal Falls travels higher up on the gorge wall on its south side. Water sampling was also done on the Rawanduz River across from the confluence with the stream from Gali Ali Beg as well as in Jundyan. The following sub-sites were visited during the survey effort:

Sub-Site Code	Sub-Site Name	Nearest Town	Coordinates					
			North			East		
E12	Gali Ali Beg	Khalifan	36	37	53	44	26	46
E12	Bekhal fall	Rawanduz	36	37	03	44	29	47
E6	Jundyan	Soran	36	37	35	44	35	39

Important Bird Observations: During the surveys a total of 13 species was recorded. Eastern Cinereous Bunting *Emberiza semenovi* (Near Threatened and an Irano-Turanian biome-restricted species) was breeding but this did not trigger inclusion under criterion A3.

Other Important Fauna

Mammals, Reptiles, and other Fauna: Data were not collected.

Fish: A brief survey was conducted in 2008 when three species were observed. According to Coad (2010) one is a species of economic importance (*Alburnus mossulensis*) and two species of no economic importance, but whose conservation status is unknown in Iraq (*Capoeta damascina* and *Silurus triostegus*). More extensive work is needed to survey the fish resources of this basin.

Plants& Habitats: This site contains about 75 plant species. Two waypoints were surveyed in the main habitat types.

1. Mountain Forest Vegetation-Oak Forests (Low Sub-Zone) (N 36° 38' 17" E 44° 29' 36"). This habitat was characterized by *Quercus aegilops* (tree), *Pistacia eurycarpa*, *P. kbinjuk*, *Prunus sp.*, and *Capparis spinosa* (shrubs), and *Dianthus pendulus* (herb).
2. Mountain Forest Vegetation-Mountain Riverine Forest (N 36° 37' 42" E 44° 27' 15"). This habitat was characterized by *Platanus orientalis* and *Salix sp.* (trees), and *Phragmites australis* (grass). Other characteristic species include *Tribulum terrestris*, *Polygonum sp.*, *Plantago virginica*, and *Epilobium sp.*

The ecological condition was most disturbed, with an ecological scale of five. The slope was between moderate (6-14°) and very steep (45-69°). The site is located in the Zagros range, where the geology is sedimentary limestone, and the soil type is sandy clay. The non-vegetated area covers about 30% in the forest.

Conservation Issues: This site is heavily impacted by tourists and picnickers who come from all over Iraq to see the dramatic gorge. The two waterfall resorts and the gorge are very popular in spring and summer. The artificial pool at Gali Ali Beg and the river banks at both sites are heavily polluted by garbage from picnickers. The Rawanduz river carries the sewage from the nearby villages and town of Diana (Soran) and Rawanduz. The presence of tourists and pollution were each assessed as very high threats. Both sites suffer from unplanned and chaotic tourism development and this was assessed as a high threat. The roads within the gorge have caused some erosion.

Recommendations: Due to its popularity, tourism and tourism development will continue to be key human activities within the gorge. It is recommended that a comprehensive tourism management plan be developed with local stakeholders to control and guide these activities and identify ways to mitigate human impacts. In both areas, it is recommended that shops, restaurants and picnic areas be pulled back slightly from some areas of the falls, pools and streams to allow natural vegetation regrowth. Public areas and walkways should be designated and signs placed to raise awareness of the importance of the historical and natural resources of the site and encourage sustainable use.

References

- Coad, B.W. (2010). *Freshwater Fishes of Iraq*. PENSOFT Publishers, Sofia-Moscow. No. 93.
- Hamilton, A.M. (1930). *Road through Kurdistan: travels in Northern Iraq*. <http://books.google.fr/books?id=bfNajoa3BtIC&pg=PA52&lpg=PA52#v=onepage&q&f=false>. Retrieved 18 June 2012