
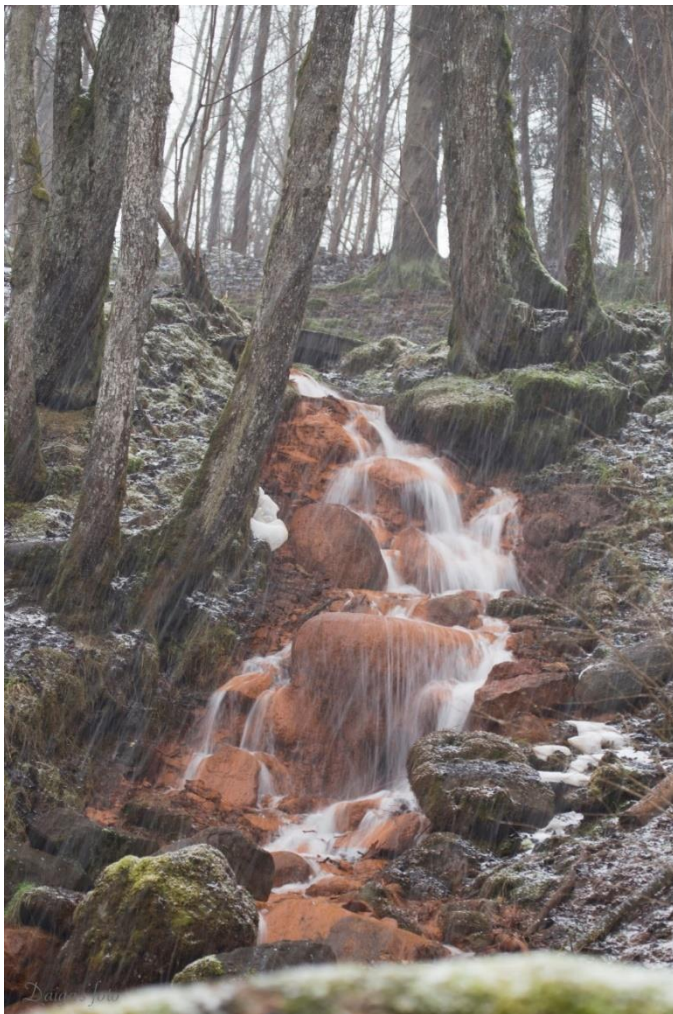




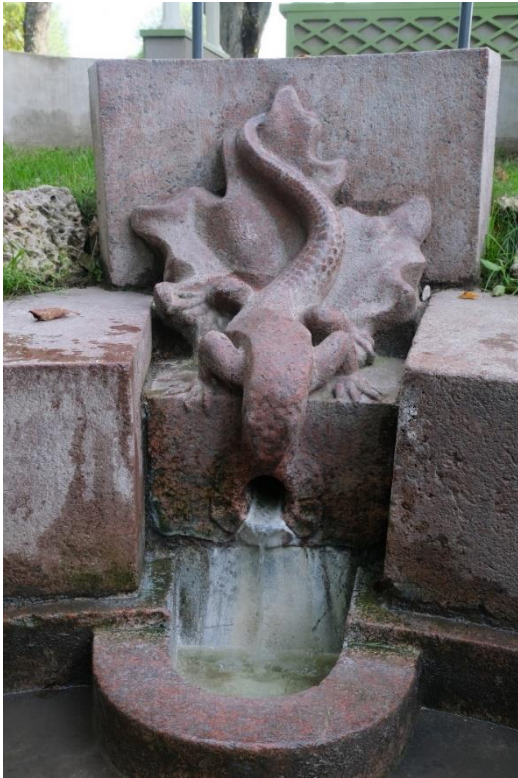
Country (NIKAS)	NIKAS springs	Coordinates / Nearby City	Spring discharge (Q in l/s,min/av/max) / tapped or not	Criteria* order / Main justification */ H-historic, A-aesthetic, S-scientific, E-Economic, Ec-ecologic	Data collected by
Latvia 	1. Dāvida mill springs (Dāvida dzirnavu avoti)	57.26802° 25.38773° Z = 110 m asl Ridzene	25/-/34 Not tapped	A, S, H, Ec, E A beautiful spring system on the bank of river Vaive, springs are in red colour due to precipitation of dissolved iron. Quite a popular geosite as a tourist destination. Relatively strong springs that precipitates iron and tufa. The springs are associated with the habitats - Mineral-rich springs and springfens (EU Biotope Code 7160), Petrifying springs with tufa formation (7220*), Tilio-Acerion forests of slopes, screes and ravines (9180*). Old water mill at the site has been powered by nearby stream. Proclaimed as Latvian Geological and Geomorphological Natural Monument, within Gauja National Park, Natura 2000 territory.	Jānis Bikše
	2. Ķemeri sulfur spring “Ķirzacīņa” (“Little Lizard”) (Ķemeru sēravots “Ķirzacīņa”)	56.948101° 23.5023994 ° Z = 3.9 m asl Kemeri	0.1/-/0.2 Not tapped	H, A, E, S The spring is just one outflow of sulfuric springs in the Ķemeri vicinity out of many others, the largest of which is ‘Lūžņu grāvja” sulfur spring (discharge up to 14.5 l/s). Springs are rich in sulphates and release hydrogen sulphide gas due to gypsum sediments in the source aquifer and nearby peat bogs. Ķemeri Springs, known for their healing properties, gained attention in the late 18th century and became an official health resort in 1838 under Emperor Nicholas I. At the turn to the 20 th century, a pavilion is being built on the Ķemeri sulfur spring as well as a bronze sculpture with a boy on the back of a dolphin. During both of the World Wars the sculpture has been destroyed. A pavilion is built on top of the spring, while the outflow is emerging from a sculpture of lizard (ķirzacīņa). The spring is located within the historical Ķemeri resort, where several national monuments of architecture and culture stands. The Ķemeri Resort park is a popular site as a tourist destination where spring “Ķirzacīņa” play important part.	Jānis Bikše
	3. Kulšēnu sulfur spring (Kulšēnu sēravots)	56.432369° 24.486355° Z = 27.5 m asl Ozolaine	-/c.140/- Not tapped	A, E, S, Ec Probably the largest spring discharge in Latvia, although lack of measurements does not allow to confidently judge about it. The spring is rich in sulphates and release hydrogen sulphide gas due to gypsum sediments in the source aquifer and nearby peat bogs. A relatively large spring pond with transparent, deep water makes this spring a quite popular geosite as a tourist destination. The spring is associated with the habitat - mineral-rich springs and springfens (EU Biotope Code 7160). It is proclaimed as Latvian	Jānis Bikše

				Geological and Geomorphological Natural Monument and Natura 2000 site. The Geosite of the Year in Latvia in 2011.	
4. Mežmuižas springs (Mežmuižas avoti)	57.100867° 24.799719° Z = 77.4 m asl	/?/ Two small collection chambers for nearby households		H, A, E, S, Ec A beautiful ravine where the spring is outflowing and a pond where the water is collected. There are several (up to 7) individual spring outflow locations among fractured dolomites, all within the same ravine. The spring has been used to power watermills which were used also to pulverize tufa formed by the same spring. Quite a popular geosite as a tourist destination, place of extreme cold-water bathing. The spring is associated with the habitat - mineral-rich springs and springfens (EU Biotope Code 7160). Included within nature reserve, Natura 2000 territory, importance of petrifying tufa.	Jānis Bikše

NIKAS – Dāvida mill springs (Dāvida dzirnavu avoti)



Dāvida mill springs (February 2016; Photo by Zigmunds Kazanovskis)



NIKAS – Kēmeri sulfur spring “Kırzaciņa” (“Little Lizard”) (Kēmeru sēravots “Kırzaciņa”)

Kēmeri sulfur spring “Kırzaciņa” (September 2021; Photo by Jānis Bikše)



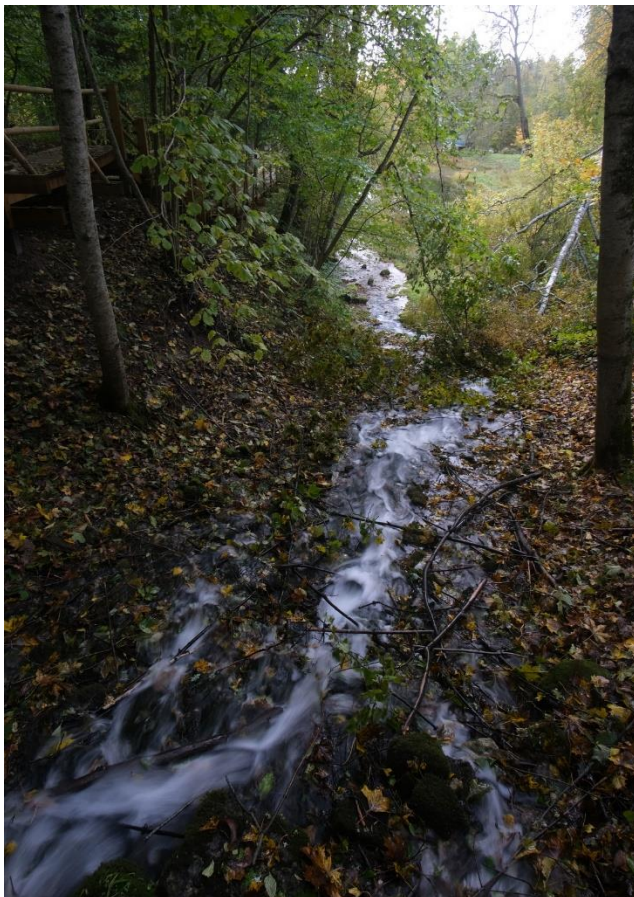
Pavilion of the Kēmeri sulfur spring “Kırzaciņa” (September 2021; Photo by Jānis Bikše)

NIKAS – Kulšēnu sulfur spring (Kulšēnu sēravots)



Kulšēnu sulfur spring (September 2021; Photo by Jānis Bikše)

NIKAS – Mežmuižas springs (Mežmuižas avoti)



A spring stream connecting spring outflow to the pond (October 2023; Photo by Jānis Bikše)



A pond where spring water is collected (October 2023; Photo by Jānis Bikše)