

REPORT FOR THE STATUS OF THE RHODOPEAN LILY  
(*Lilium rhodopaeum*) in the locality near village of Stoykite,  
Smolyan district, Bulgaria – 2021

The locality of the Rhodopean lily has been visited twice this year (26.06. and 14.08.2021).

Total number of population of the species is 355 individuals, 267 of them are flowering and 68 vegetative. Insects or cattle have damaged 15 of all.

Between the flowering individuals there are 267 with single bloom, 45 with two blooms, and 9 with tree blooms in inflorescence.

Ratio of the flowering/vegetative individuals is about 4.22 (287F/68V) in favor of flowering ones.

The trend for high total population number continues this year, despite a slight decline of about 3% due to decreasing of the number of vegetative individuals. An increase of almost 10% is observed in flowering individuals.

Again, this year, with kind assistance of Regional inspectorate of environment and waters – Smolyan, have been avoid impact by grazing in the population of the Rhodopean lily until the end of flowering season. Grazing started late enough - in august, when the vegetation period was finished, which is very favorably for the species.

After four years of increasing number of flowering individuals, fortunately, this year Rhodopean lilies success to form about seven fruit capsules! (see photos). Probably, due to climatic features, or perhaps due to intensive grazing after vegetation period, but Rhodopean lily, somehow managed to form fruit capsules. Propagation by seeds should be usual for normal development of the populations, and it is a sign for stabilization and growing of the population.

We will continue with our efforts to manage this valuable territory for the Rhodopean lily population.

Table 1. Results of census studies 2008-2021.

Year	number of flowering individuals	number of vegetative ind.	ratio of flowering/vegetative ind.	number of damaged ind.	total number of ind.	increasing/decreasing of total number of ind. In percentage to previous year
2008	122	66	1,85	28	188	-
2010	96	-	-	19	96	-48,94
2011	145	-	-	-	145	51,04
2012	78	52	1,50	-	130	-10,34
2013	17	46	0,37	-	63	-51,54
2014	42	11	3,82	15	53	-15,87
2015	41	4	10,25	14	45	-15,09
2016	56	23	2,43	5	79	75,56
2017	75	34	2,21	34	109	37,97
2018	117	31	3,77	10	148	35,78
2019	123	71	1,73	30	194	31,08
2020	262	107	1,99	36	369	90,21
2021	287	68	3,43	15	355	-3,79

**Photos:**

Photo 1. General view of the locality



Photo 2. Flowering individuals



Photo 3. Fruit capsules



Photo 4. Grazing



Photo 5. Trampled dry stems



Photo 6. Unsuccessful fruit capsule forming

