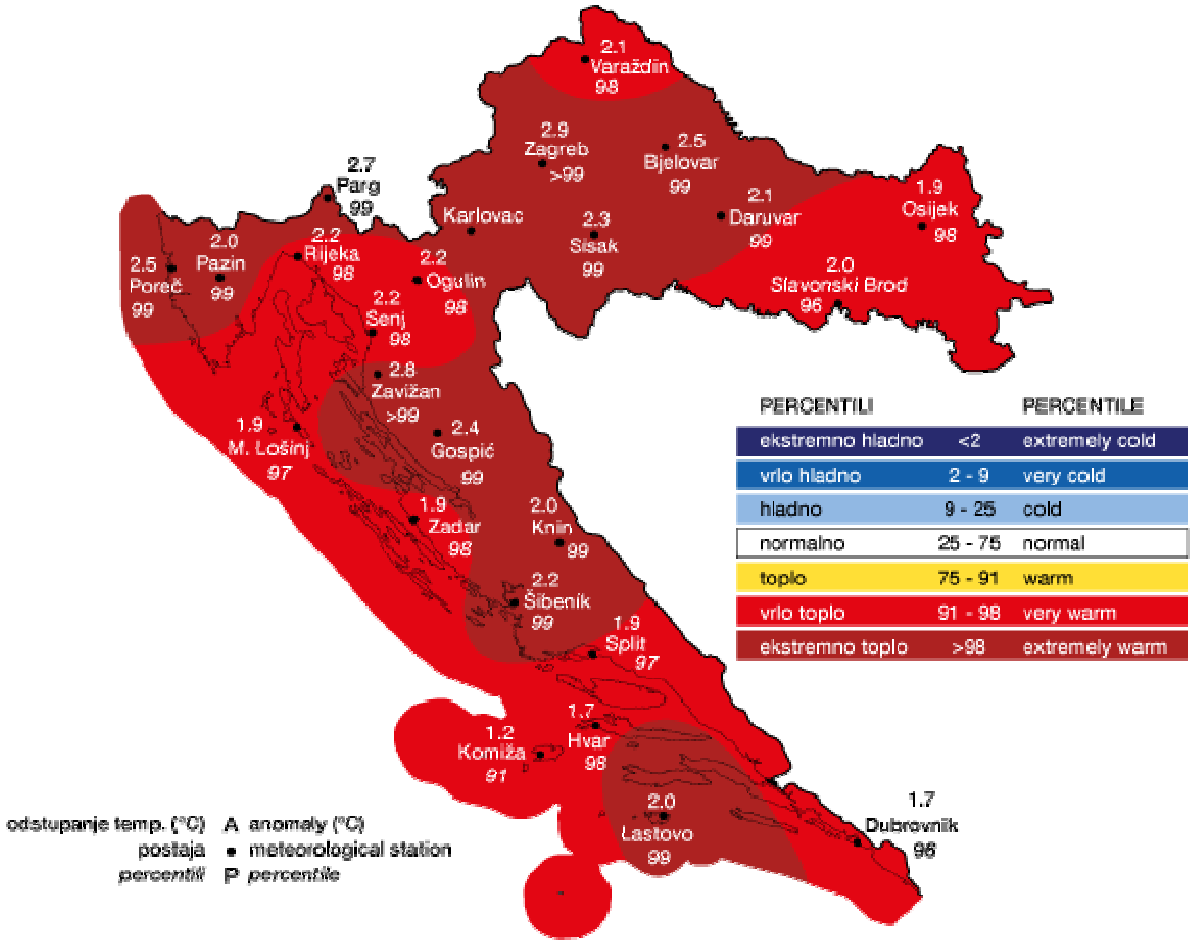
Climate Report for Croatia for Summer 2019

Air temperature anomalies for Croatia in summer 2019

Throughout Croatia the average seasonal air temperature for summer 2019 was above the multi-annual avrage (1981 - 2010) as indicated by positive seasonal air temperature anomalies. Corresponding air temperature anomalies for summer (June, July, August) 2019 were within a 1.2 °C - 2.9 °C range.

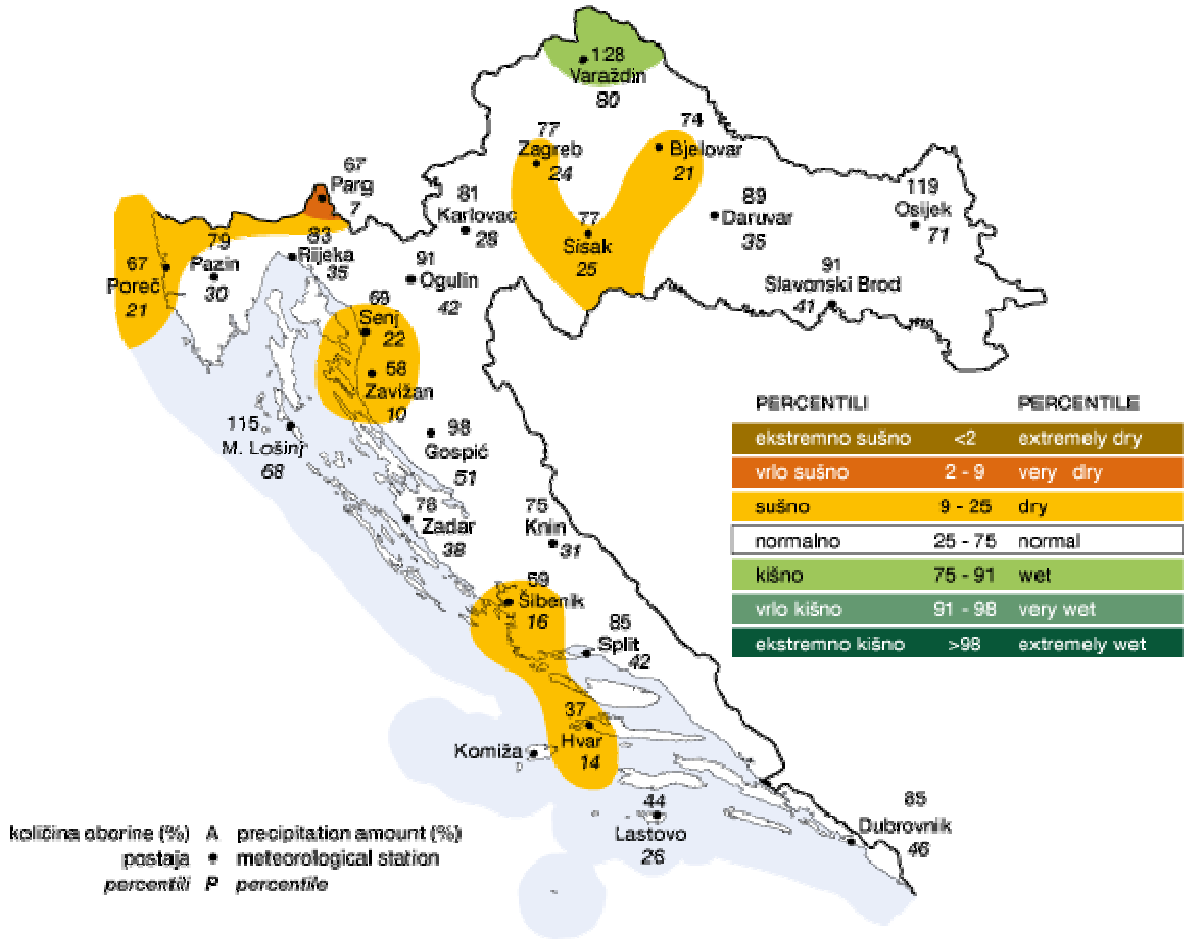
According to percentile ranks and classification ratings, thermal conditions in Croatia in summer 2019 have been described by the following categories: **very warm** (Eastern Croatia, wider Varaždin area as well as part of the Northern, Middle and Southern Adriatic) and **extremely warm** (the rest of Croatia).



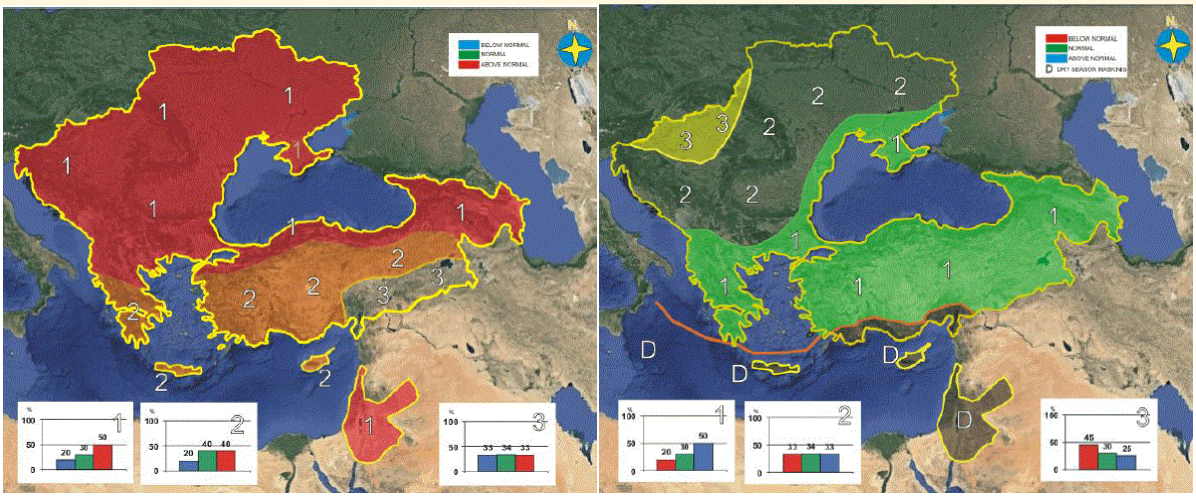
Precipitation amounts for Croatia in summer 2019

An analysis of precipitation amounts for summer 2019 given in percentages (%) of 1981 - 2010 average, shows that these precipitation amounts in Croatia were mainly below the average. Corresponding precipitation amounts for summer 2019 were within the range of 37 % - 128 % of the multi-annual average for this season.

According to percentile ranks and classification ratings, precipitation amounts for summer 2019 have been described by the following categories: **dry** (wider areas of Zagreb, Bjelovar and Sisak, part of the Northern and Middle Adriatic), **very dry** (wider area of Parg), **wet** (wider Varaždin area) and **normal** (the rest of Croatia).



SEECOF-21 CLIMATE OUTLOOK VALIDATION



Graphical presentation of the 2019 summer temperature (left) and precipitation (right) outlook.

Air temperature anomalies for Croatia in summer 2019

According to the SEECOF-21 climate outlook, for all Croatian teritory, there were chance for above normal summer temperatures. Probability for exceeding the average summer season temperature was 50%.

The summer season in Croatia according to multi-annual average 1981-2010 was for the whole teritory above normal (1.2 °C - 2.9 °C).

We can conclude that the outlook for the summer 2019 according the temperature was very good.

Precipitation amounts for Croatia in summer 2019

According to the SEECOF-21 climate outlook, summer precipitation sum in the northernmost part of Croatia was forecasted below-average with probability of 45%, normal with probability of 30% and above-average with probability of 25%. At the rest of Croatia it had no preference for any climate defined categories, with an equal probability of all three terciles.

The actual precipitation amounts were mainly below the average.

According to percentile ranks and classification ratings the categorie very dry were in mountain region in the wider area of Parg, dry was in the part of the Northern and Middle Adriatic and wider areas of the city of Zagreb, Bjelovar and Sisak. The rest of Croatia were in the categorie normal and just wider area of city of Varaždin was in categorie wet.

We can conclude that the outlook for the summer 2019 according the precipitation was satisfactory except for the northernmost part of Croatia where precipitation deficit was forecasted.

Country	Seasonal temperature (JJA)		Seasonal precipitation (JJA)		High Impact Events
	Observed	SEECOF-21 climate outlook for temperature	Observed	SEECOF-21 climate outlook for precipitation	
Croatia	**Above normal**	**Above normal** (20,30,50)	**Below normal** (wider area of Parg, wider areas of city of Zagreb, Bjelovar and Sisak, and part of the Northern and Middle Adriatic) **Above normal** (wider area of city of Varaždin)	**Below normal** (45,30,25) The northernmost part of Croatia **No predictive signal** (33,34,33) The rest of Croatia	**Summer 2019** was very warm and extremely warm. In all three months heat waves were observed (two each in June and July and three in August) – and only in June there were several maximum air temperatures which exceeded the absolute maximum on record (Dubrovnik, Hvar, Pazin, Poreč, Zadar, Parg, Puntijarka and Zavižan). In all three months convective related severe weather phenomena (thunderstorms, hail, heavy rains, flash floods, waterspouts) were observed mostly all over Croatia.