

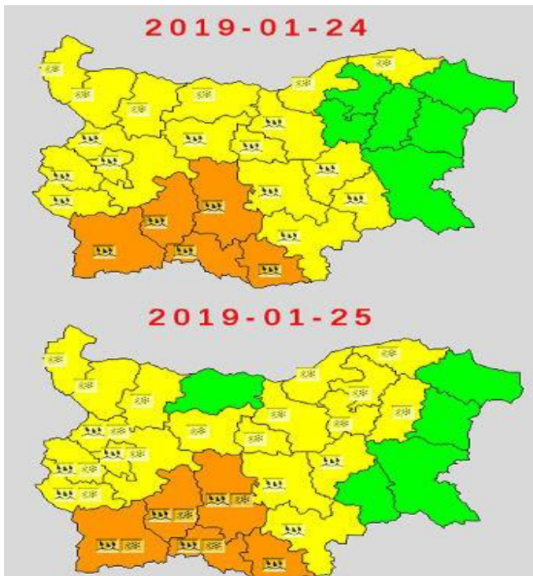
Meteoalarm warnings for Sofia: October-April 2010-2021

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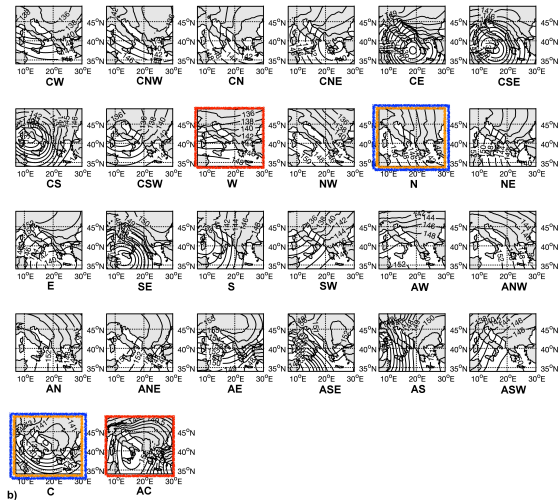


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5th Seminar: "Physics and chemistry of the Earth system"
26 September 2023, Bania Bulgaria



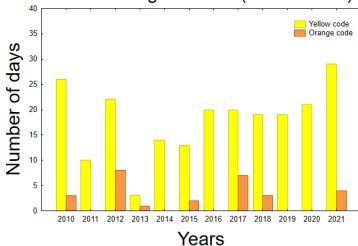
- 8 Directional (W, NW, N, NE, E, SE, S, SW)
- 8 Cyclonic (CW, CNW, CN, CNE, CE, CSE, CS, CSW)
- 8 Anticyclonic (AW, ANW, AN, ANE, AE, ASE, AS, ASW), C and A



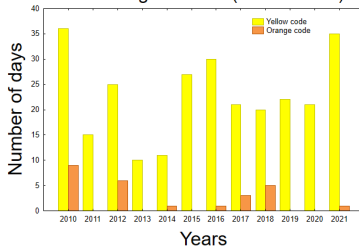
Annual climatology: May-September vs October-April (2010-2021)

- May-September: 21% of severe warnings precipitation (rain and hail)
- October-April: 30% of severe warnings precipitation (rain and snow)

Summer Warnings in Sofia (2010 - 2021)

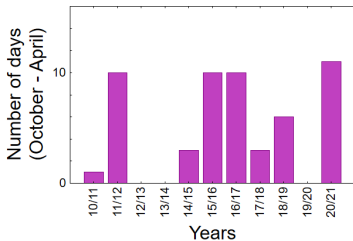


Winter Warnings in Sofia (2010 - 2021)

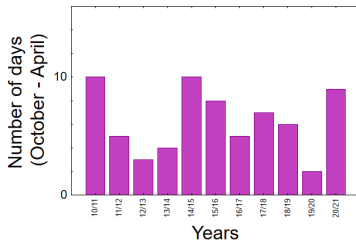


Sofia warning climatology by year: cold, rain, snow, wind

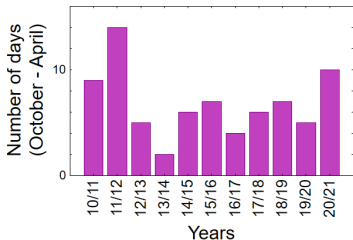
Cold warnings (2010 - 2021)



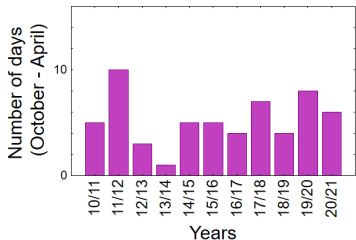
Rain warnings (2010 - 2021)



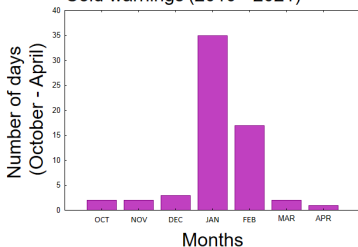
Snow warnings (2010 - 2021)



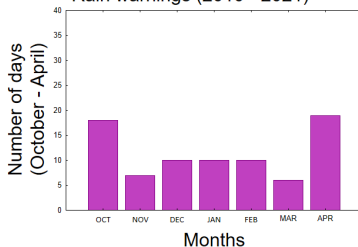
Wind warnings (2010 - 2021)



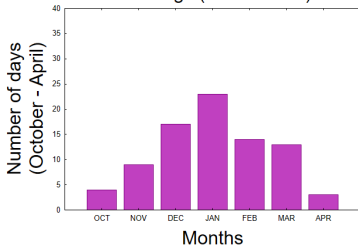
Cold warnings (2010 - 2021)



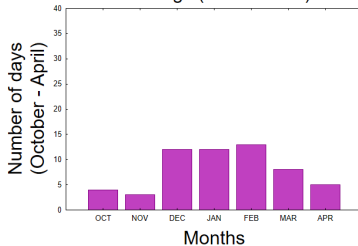
Rain warnings (2010 - 2021)

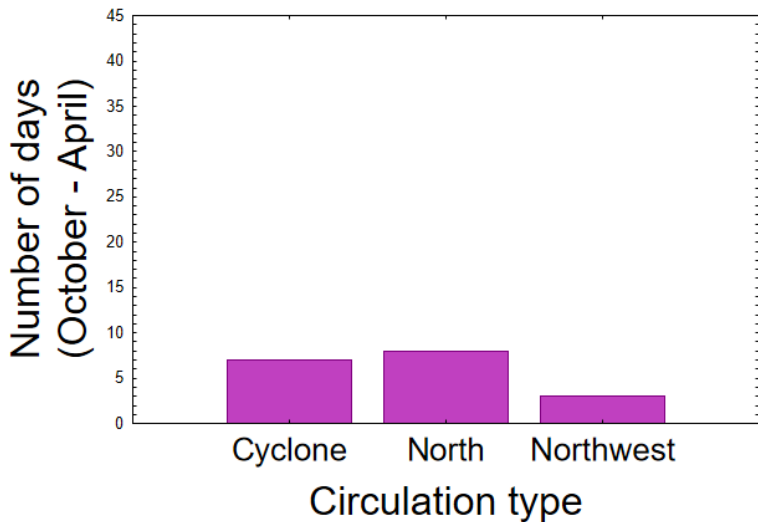


Snow warnings (2010 - 2021)

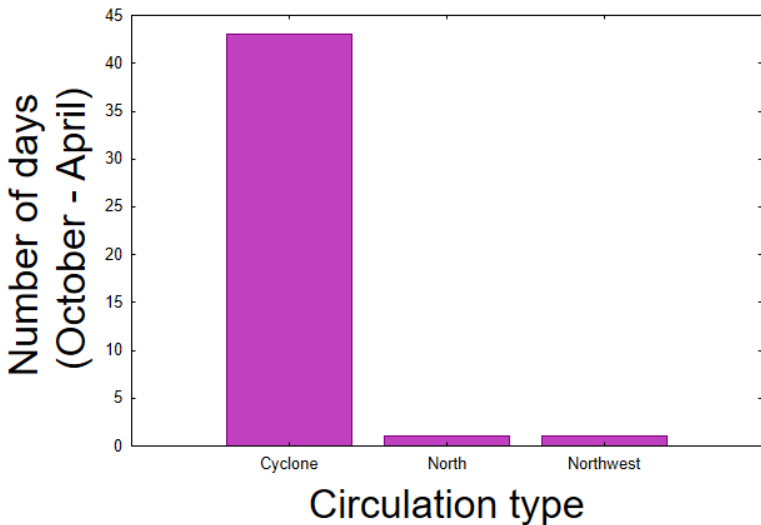


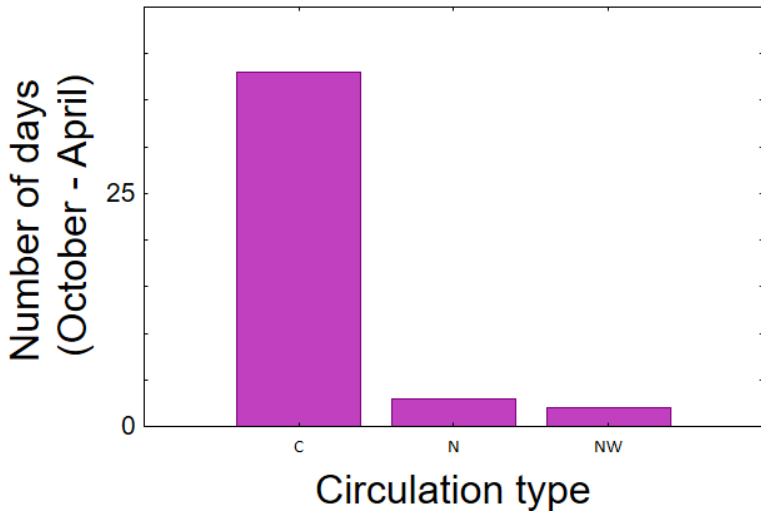
Wind warnings (2010 - 2021)

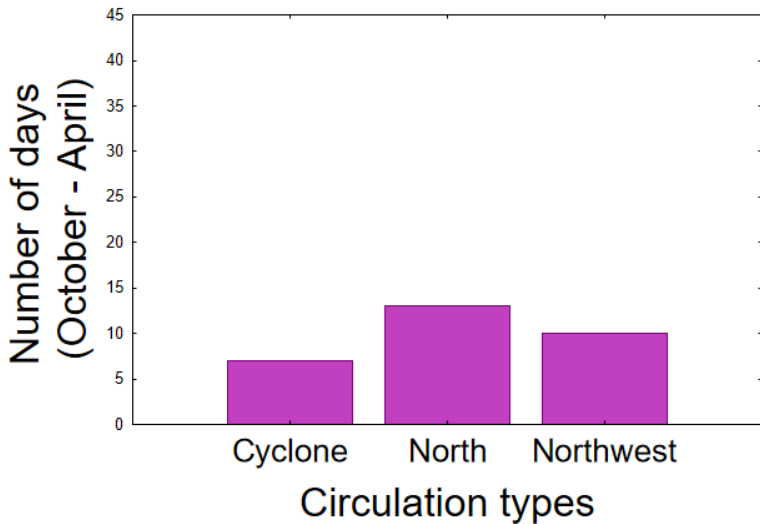




Circulation types: Rain October-April 2010-2018







- Meteoalarm yellow and orange code Sofia October-April 2010-2021: 320 days from which cold, rain, snow and wind 282 days
- October-April 2010-2021: Cold - 62 days (19%) Rain - 80 (25%); Snow - 83 (26%); Wind - 57 (18%)
- MAX: Cold 2020/2021 - 11 days; Rain 2010/11 & 2014/15 - 10 days; Snow 2011/12 - 14 days; Wind 2011/12 - 10 days
- MAX: Cold - January - 35 days; Rain&April - 19 days; Snow January - 23 days; Wind - February 13 days
- Mediterranean cyclone: Snow - 38 days (58% of all circulations), Rain - 43 days (65% of all circulations)

Acknowledgement:

- Prof. Piia Post from University of Tartu for providing circulation classification.

THANK YOU!