Regional Eastern Europe Fire Monitoring Center (REEFMC)

Регіональний Східноєвропейський центр моніторингу пожеж

Address: Kyiv, 03041, Dniprovska Naberezhna St. 7A, office 104.
Tel. +38 067 2611682
E-mail: reefmc@nubip.edu.ua URL: https://nubip.edu.ua/node/9083

Information bulletin[1] № 3

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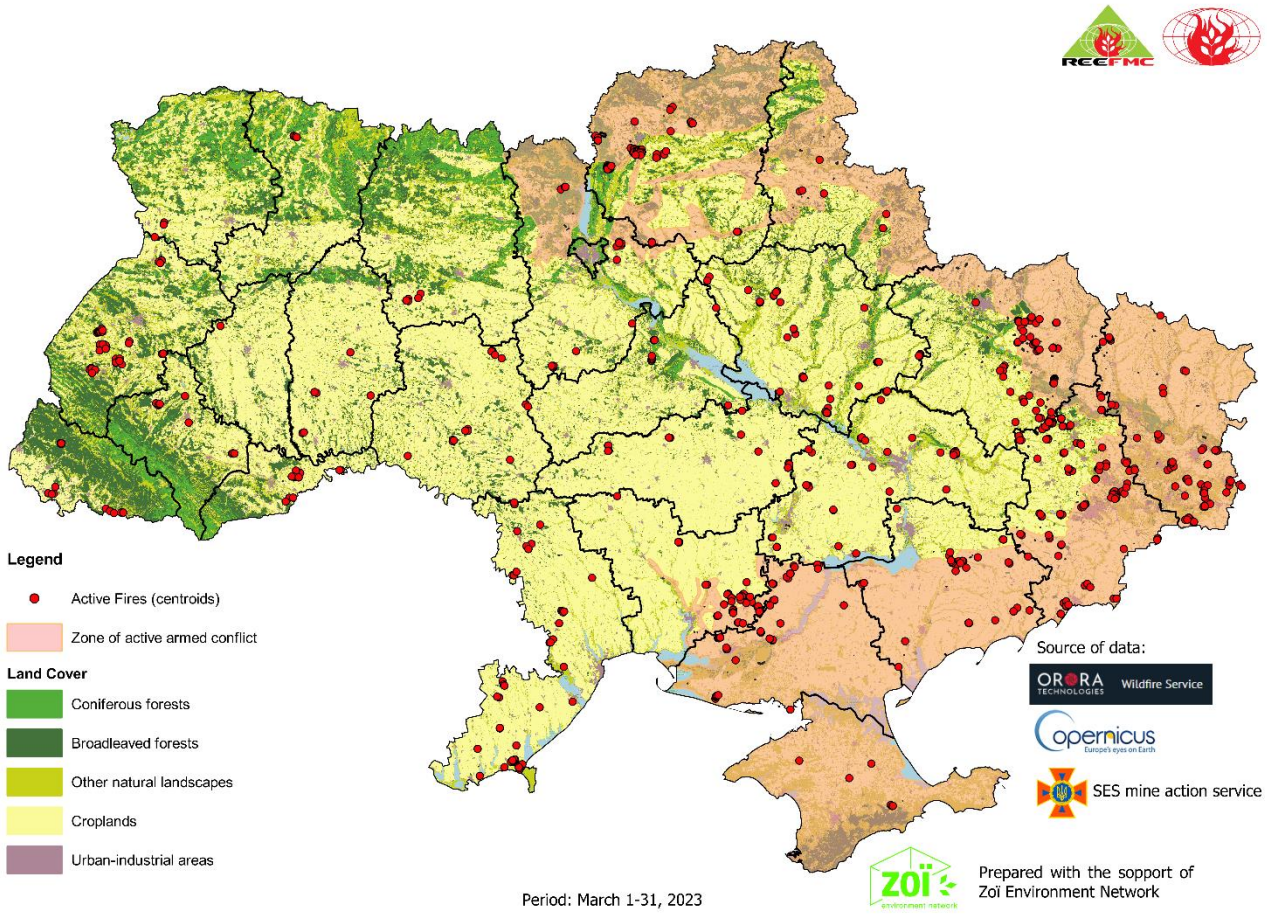
FIRES ON THE TERRITORY OF UKRAINE

(in ecosystems, agricultural lands and in cities [2])

For the period of 01.03.2023 to 31.03.2023

1. Map of active fires on the territory of Ukraine for the period of 01.03.2023 to 31.03.2023



[1] The bulletin was prepared with the financial support of the Swiss organization «Zoï Environment Network» www.zoinet.org

[2] Methodology for fire monitoring is presented on the last page of this bulletin

Table 1. Statistics of fires on the territory of Ukraine for the period of 01.03.2023 to 31.03.2023

Oblast	Numbers of fires	Area of fires, ha	Distribution of fire area by types of landscapes, ha					Area of fires in nature conservation zones[1]
			forests	including coniferous	agriculture lands	other natural landscapes	settlements	
Crimea	6	127	0	0	76	51	0	0
Vinnytsia	16	120	15	0	92	13	0	0
Volyn	3	259	0	0	76	183	0	0
Dnipropetrovska	37	1496	25	0	1139	328	4	236
Donetsk	115	2714	94	0	991	1616	13	693
Zhytomyr	6	75	0	0	75	0	0	0
Transcarpathian	16	549	21	0	451	75	2	11
Zaporizhzhya	34	1341	29	0	728	583	1	73
Ivano-Frankivsk	9	467	0	0	274	172	21	86
Kyiv	19	639	26	0	203	409	1	90
Kirovograd	16	110	0	0	92	11	7	14
Luhansk	71	3685	92	0	1680	1899	14	1214
Lviv	44	1226	41	0	397	785	3	157
Mykolaiv	43	885	0	0	820	58	7	5
Odesa	48	3760	34	0	1079	2645	2	2485
Poltava	38	689	39	0	201	446	3	307
Rivne	3	90	3	1	45	42	0	0
Sumy	6	188	0	0	77	111	0	31
Ternopil	1	31	0	0	31	0	0	0
Kharkiv	64	1349	30	0	255	1064	0	989
Kherson	51	701	23	0	416	258	4	144
Khmelnytsky	6	44	2	0	24	13	5	11
Cherkasy	14	226	1	0	162	63	0	16
Chernivtsi	13	269	5	0	202	62	0	0
Chernihiv	77	2952	101	5	888	1962	1	910
Total, ha	**756**	**23992**	**581**	**6**	**10474**	**12849**	**88**	**7472**
Including the direct impact of military battles, buffer zone 60 km (30+30 km)								
Dnipropetrovs'k	6	498	1	0	434	62	1	20
Donetsk	103	2493	88	0	954	1439	12	623
Zaporizhzhia	33	1288	29	0	676	583	0	73
Kyiv	10	535	3	0	163	368	1	90
Luhansk	35	1557	59	0	556	942	0	215
Mykolaiv	39	852	0	0	807	38	7	5
Sumy	6	188	0	0	77	111	0	31
Kharkiv	61	1322	30	0	242	1050	0	981
Kherson	51	701	23	0	416	258	4	144
Chernihiv	77	2952	101	5	888	1962	1	910
Total, ha	**421**	**12386**	**334**	**5**	**5213**	**6813**	**26**	**3092**
%	**56**	**52**	**57**	**83**	**50**	**53**	**30**	**41**

Note:

[1] In the research, we have used the network of nature conservation areas of European importance, which was created to implement the provisions of the Berne Convention on the Protection of Wild Flora and Fauna and Natural Habitats in Europe (Emerald Network) (http://emerald.net.ua/).

[2] Direct impact of military operations - 60 km along frontline with both sides (30+30) of most intensive shelling and concentration of troops. Daily front line coordinates were provided by ZOI Network for define fires that occurred in the zone of direct impact (ZDI).

2. Map of fires in the nature conservation areas (Emerald Network) for the period from 01.03.2023 to 31.03.2023.

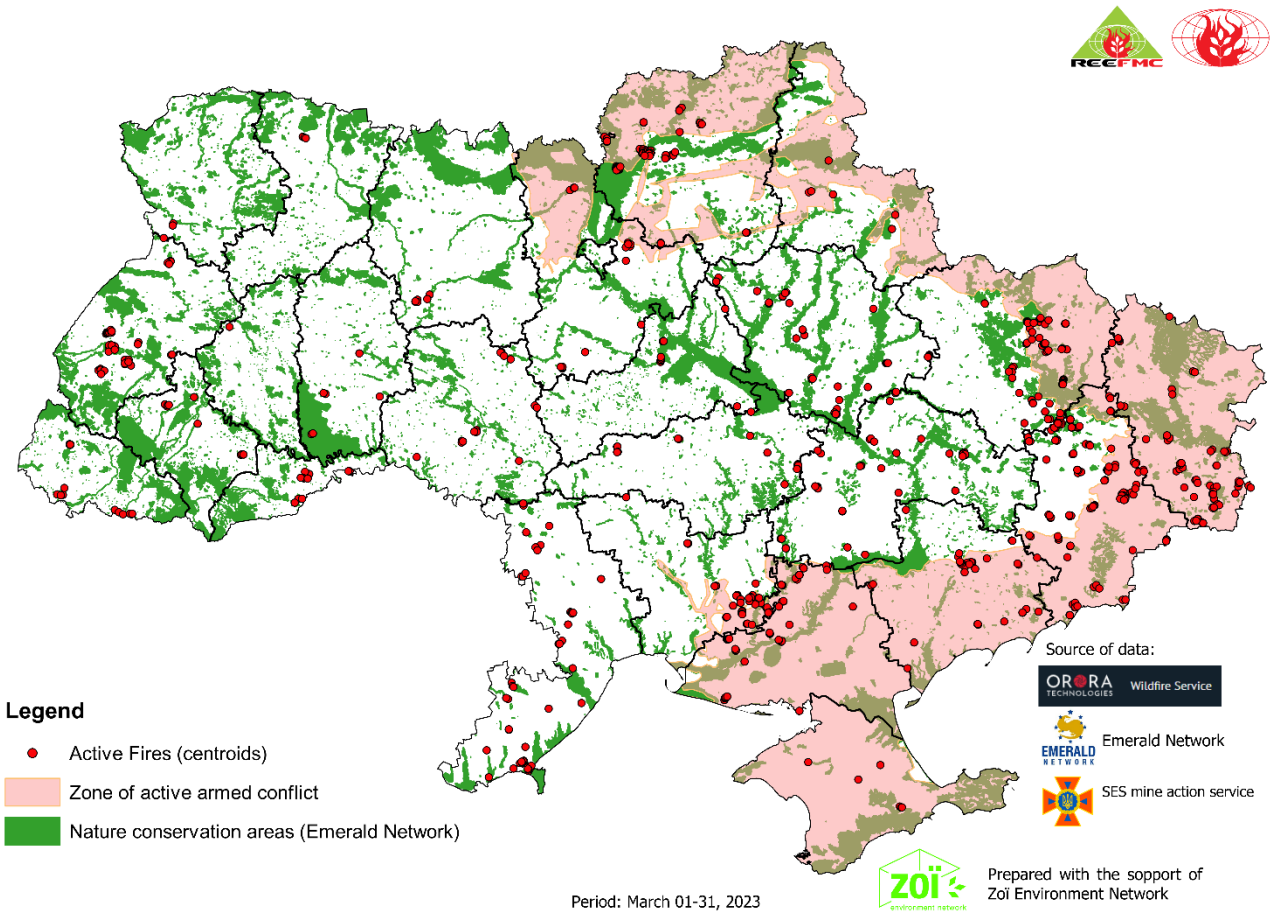


Table 2. Statistics of fires in the areas of nature conservation (Emerald network) for the period of 01.03.2023 to 31.03.2023

Oblast	Area of fires, ha	Distribution of fire area by types of landscapes, ha				
		forests	including coniferous	agriculture lands	other natural landscapes	settlements
Dnipropetrovs'k	236	3	0	110	123	0
Donetsk	693	49	0	87	557	0
Transcarpathian	11	7	0	0	4	0
Zaporizhzhya	73	23	0	22	28	0
Ivano-Frankivsk	86	0	0	57	29	0
Kyiv	90	0	0	58	32	0
Kirovograd	14	0	0	8	6	0
Luhansk	1214	75	0	498	641	0
Lviv	157	1	0	32	124	0
Mykolaiv	5	0	0	5	0	0
Odesa	2485	0	0	12	2473	0
Poltava	307	18	0	140	148	1
Sumy	31	0	0	0	31	0
Kharkiv	989	26	0	144	819	0
Kherson	144	20	0	0	124	0
Khmelnytsky	11	0	0	9	0	2
Cherkasy	16	0	0	8	8	0
Chernihiv	910	97	5	102	711	0
Total	**7472**	**319**	**5**	**1292**	**5858**	**3**

Oblast	Area of fires, ha	Distribution of fire area by types of landscapes, ha				
		forests	including coniferous	agriculture lands	other natural landscapes	settlements
Including the direct impact of military battles, buffer zone 60 km (30+30 km)						
Dnipropetrovs'k	20	0	0	10	10	0
Donetsk	623	47	0	84	492	0
Zaporizhzhia	73	23	0	22	28	0
Kyiv	90	0	0	58	32	0
Luhansk	215	48	0	25	142	0
Mykolaiv	5	0	0	5	0	0
Sumy	31	0	0	0	31	0
Kharkiv	981	26	0	143	812	0
Kherson	144	20	0	0	124	0
Chernihiv	910	97	5	102	711	0
Total	**3092**	**261**	**5**	**449**	**2382**	**0**
%	**41**	**82**	**100**	**35**	**41**	**0**

Note:

[1] In the research, we have used the network of nature conservation areas of European importance, which was created to implement the provisions of the Berne Convention on the Protection of Wild Flora and Fauna and Natural Habitats in Europe (Emerald Network) (http://emerald.net.ua/).

[2] Direct impact of military operations - 60 km along frontline with both sides (30+30) of most intensive shelling and concentration of troops. Daily front line coordinates were provided by ZOI Network for define fires that occurred in the zone of direct impact (ZDI).

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3. Methodology for fire monitoring

Daily front line coordinates were provided by ZOI Network for define fires that occurred in the zone of direct impact (ZDI). Distribution of burned land cover types within fire perimeters were mapped using the Copernicus Dynamic Land Cover map at 100 m resolution for 2019 (Copernicus Global Land Operations "Vegetation and Energy"), which provides a detailed description of land cover as of 2019 with a resolution of 100 m. Detailed information about the product - https://land.copernicus.eu/global/sites/cgls.vito.be/files/products/CGLOPS1_ATBD_LC100m-V2.0_I2.00.pdf.

The network of nature conservation areas of European importance, which was created to implement the provisions of the Berne Convention on the Protection of Wild Flora and Fauna and Natural Habitats in Europe (Emerald Network) (http://emerald.net.ua/), was used for the analysis of areas of nature conservation value that were affected by fires.

The analysis was performed using a free geographic information system. QGIS (3.2.1), which is one of the most functional and convenient desktop geographic information systems.