

## Răsăritul și Apusul Soarelui în anul 2019

pentru orașul Tulcea

Longitudine 28°47'57" Est

Latitudine 45°10'22" Nord

Zi	IANUARIE	FEBRUARIE	MARTIE	APRILIE	MAI	IUNIE	IULIE	AUGUST	SEPTEMBRIE	OCTOMBRIE	NOIEMBRIE	DECEMBRIE	Zi
	Răsare Apune	Răsare Apune	Răsare Apune	Răsare Apune	Răsare Apune	Răsare Apune	Răsare Apune	Răsare Apune	Răsare Apune	Răsare Apune	Răsare Apune	Răsare Apune	
01	M 07:44 16:33	V 07:26 17:12	V 06:44 17:51	L 05:46 18:32	M 04:55 19:10	S 04:21 19:45	L 04:21 19:56	J 04:49 19:33	D 05:26 18:43	M 06:02 17:46	V 06:43 16:53	D 07:23 16:24	01
02	M 07:44 16:34	S 07:24 17:13	S 06:42 17:53	M 05:44 18:33	J 04:53 19:11	D 04:20 19:45	M 04:22 19:56	V 04:50 19:31	L 05:27 18:41	M 06:03 17:44	S 06:44 16:52	L 07:24 16:24	02
03	J 07:44 16:35	D 07:23 17:15	D 06:40 17:54	M 05:43 18:35	V 04:52 19:13	L 04:20 19:46	M 04:22 19:56	S 04:51 19:30	M 05:28 18:39	J 06:05 17:42	D 06:46 16:50	M 07:25 16:24	03
04	V 07:44 16:36	L 07:22 17:16	L 06:38 17:55	J 05:41 18:36	S 04:50 19:14	M 04:20 19:47	J 04:23 19:55	D 04:53 19:29	M 05:30 18:37	V 06:06 17:41	L 06:47 16:49	M 07:26 16:23	04
05	S 07:44 16:37	M 07:21 17:17	M 06:37 17:57	V 05:39 18:37	D 04:49 19:15	M 04:19 19:48	V 04:23 19:55	L 04:54 19:27	J 05:31 18:36	S 06:07 17:39	M 06:48 16:48	J 07:27 16:23	05
06	D 07:43 16:38	M 07:19 17:19	M 06:35 17:58	S 05:37 18:38	L 04:47 19:16	J 04:19 19:49	S 04:24 19:55	M 04:55 19:26	V 05:32 18:34	D 06:08 17:37	M 06:50 16:46	V 07:28 16:23	06
07	L 07:43 16:39	J 07:18 17:20	J 06:33 18:00	D 05:35 18:40	M 04:46 19:18	V 04:18 19:49	D 04:25 19:54	M 04:56 19:24	S 05:33 18:32	L 06:10 17:35	J 06:51 16:45	S 07:29 16:23	07
08	M 07:43 16:40	V 07:17 17:22	V 06:31 18:01	L 05:33 18:41	M 04:45 19:19	S 04:18 19:50	L 04:26 19:54	J 04:57 19:23	D 05:34 18:30	M 06:11 17:33	V 06:53 16:44	D 07:30 16:23	08
09	M 07:43 16:41	S 07:15 17:23	S 06:29 18:02	M 05:32 18:42	J 04:43 19:20	D 04:18 19:51	M 04:26 19:53	V 04:58 19:22	L 05:36 18:28	M 06:12 17:31	S 06:54 16:43	L 07:31 16:23	09
10	J 07:42 16:42	D 07:14 17:25	D 06:28 18:04	M 05:30 18:44	V 04:42 19:21	L 04:17 19:51	M 04:27 19:53	S 05:00 19:20	M 05:37 18:26	J 06:14 17:30	D 06:55 16:41	M 07:32 16:22	10
11	V 07:42 16:43	L 07:13 17:26	L 06:26 18:05	J 05:28 18:45	S 04:41 19:22	M 04:17 19:52	J 04:28 19:52	D 05:01 19:19	M 05:38 18:24	V 06:15 17:28	L 06:57 16:40	M 07:33 16:23	11
12	S 07:42 16:45	M 07:11 17:27	M 06:24 18:06	V 05:26 18:46	D 04:39 19:24	M 04:17 19:52	V 04:29 19:52	L 05:02 19:17	J 05:39 18:22	S 06:16 17:26	M 06:58 16:39	J 07:34 16:23	12
13	D 07:41 16:46	M 07:10 17:29	M 06:22 18:08	S 05:24 18:47	L 04:38 19:25	J 04:17 19:53	S 04:30 19:51	M 05:03 19:16	V 05:40 18:21	D 06:17 17:24	M 06:59 16:38	V 07:35 16:23	13
14	L 07:41 16:47	J 07:08 17:30	J 06:20 18:09	D 05:23 18:49	M 04:37 19:26	V 04:17 19:53	D 04:30 19:50	M 05:04 19:14	S 05:42 18:19	L 06:19 17:22	J 07:01 16:37	S 07:36 16:23	14
15	M 07:40 16:48	V 07:07 17:32	V 06:18 18:10	L 05:21 18:50	M 04:36 19:27	S 04:17 19:54	L 04:31 19:50	J 05:06 19:12	D 05:43 18:17	M 06:20 17:21	V 07:02 16:36	D 07:36 16:23	15
16	M 07:40 16:50	S 07:05 17:33	S 06:16 18:11	M 05:19 18:51	J 04:35 19:28	D 04:17 19:54	M 04:32 19:49	V 05:07 19:11	L 05:44 18:15	M 06:21 17:19	S 07:04 16:35	L 07:37 16:23	16
17	J 07:39 16:51	D 07:04 17:35	D 06:15 18:13	M 05:17 18:52	V 04:34 19:29	L 04:17 19:55	M 04:33 19:48	S 05:08 19:09	M 05:45 18:13	J 06:23 17:17	D 07:05 16:34	M 07:38 16:24	17
18	V 07:38 16:52	L 07:02 17:36	L 06:13 18:14	J 05:16 18:54	S 04:33 19:31	M 04:17 19:55	J 04:34 19:47	D 05:09 19:08	M 05:46 18:11	V 06:24 17:15	L 07:06 16:33	M 07:39 16:24	18
19	S 07:38 16:53	M 07:00 17:37	M 06:11 18:15	V 05:14 18:55	D 04:32 19:32	M 04:17 19:55	V 04:35 19:46	L 05:10 19:06	J 05:48 18:09	S 06:25 17:14	M 07:08 16:32	J 07:39 16:24	19
20	D 07:37 16:55	M 06:59 17:39	M 06:09 18:17	S 05:12 18:56	L 04:30 19:33	J 04:17 19:56	S 04:36 19:46	M 05:12 19:04	V 05:49 18:07	D 06:27 17:12	M 07:09 16:31	V 07:40 16:25	20
21	L 07:36 16:56	J 06:57 17:40	J 06:07 18:18	D 05:10 18:58	M 04:30 19:34	V 04:17 19:56	D 04:37 19:45	M 05:13 19:02	S 05:50 18:05	L 06:28 17:10	J 07:10 16:30	S 07:40 16:25	21
22	M 07:35 16:58	V 06:56 17:42	V 06:05 18:19	L 05:09 18:59	M 04:29 19:35	S 04:18 19:56	L 04:38 19:44	J 05:14 19:01	D 05:51 18:03	M 06:29 17:09	V 07:12 16:30	D 07:41 16:26	22
23	M 07:35 16:59	S 06:54 17:43	S 06:03 18:21	M 05:07 19:00	J 04:28 19:36	D 04:18 19:56	M 04:39 19:43	V 05:15 18:59	L 05:52 18:01	M 06:31 17:07	S 07:13 16:29	L 07:41 16:26	23
24	J 07:34 17:00	D 06:52 17:45	D 06:01 18:22	M 05:05 19:01	V 04:27 19:37	L 04:18 19:56	M 04:40 19:42	S 05:16 18:57	M 05:54 17:59	J 06:32 17:05	D 07:14 16:28	M 07:42 16:27	24
25	V 07:33 17:02	L 06:51 17:46	L 05:59 18:23	J 05:04 19:03	S 04:26 19:38	M 04:18 19:56	J 04:41 19:41	D 05:18 18:56	M 05:55 17:58	V 06:33 17:04	L 07:15 16:28	M 07:42 16:27	25
26	S 07:32 17:03	M 06:49 17:47	M 05:58 18:24	V 05:02 19:04	D 04:25 19:39	M 04:19 19:56	V 04:42 19:40	L 05:19 18:54	J 05:56 17:56	S 06:35 17:02	M 07:17 16:27	J 07:42 16:28	26
27	D 07:31 17:04	M 06:47 17:49	M 05:56 18:26	S 05:01 19:05	L 04:24 19:40	J 04:19 19:56	S 04:44 19:39	M 05:20 18:52	V 05:57 17:54	<b>D 06:36 17:01</b>	M 07:18 16:26	V 07:43 16:29	27
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30	M 07:28 17:09		S 05:50 18:30	M 04:56 19:09	J 04:22 19:43	D 04:21 19:56	M 04:47 19:35	V 05:24 18:47	L 06:01 17:48	M 06:40 16:56	S 07:22 16:25	L 07:43 16:31	30
31	J 07:27 17:10		<b>D 05:48 18:31</b>		V 04:22 19:44		M 04:48 19:34	S 05:25 18:45		J 06:42 16:55		M 07:44 16:32	31

Note:

1. Pentru întreg anul orele de răsărit și apus ale Soarelui sunt date în **Timp Legal Român** - UTC+2h
2. În anul 2019 **Ora de Vară** - UTC+3h este introdusă între 31 Martie și 27 Octombrie

## Începutul și sfârșitul Crepusculului Civil în anul 2019

pentru orașul Tulcea

Longitudine **28°47'57"** Est

Latitudine **45°10'22"** Nord

Zi	IANUARIE	FEBRUARIE	MARTIE	APRILIE	MAI	IUNIE	IULIE	AUGUST	SEPTEMBRIE	OCTOMBRIE	NOIEMBRIE	DECEMBRIE	Zi
	Început Sfârșit	Început Sfârșit	Început Sfârșit	Început Sfârșit	Început Sfârșit	Început Sfârșit	Început Sfârșit	Început Sfârșit	Început Sfârșit	Început Sfârșit	Început Sfârșit	Început Sfârșit	
01	M 07:10 17:07	V 06:54 17:43	V 06:14 18:21	L 05:17 19:02	M 04:22 19:43	S 03:45 20:21	L 03:44 20:33	J 04:15 20:06	D 04:55 19:13	M 05:33 18:15	V 06:12 17:24	D 06:50 16:58	01
02	M 07:10 17:08	S 06:53 17:44	S 06:12 18:22	M 05:15 19:03	J 04:20 19:44	D 03:44 20:22	M 03:44 20:33	V 04:16 20:05	L 04:57 19:11	M 05:34 18:14	S 06:14 17:23	L 06:51 16:57	02
03	J 07:10 17:08	D 06:52 17:46	D 06:11 18:24	M 05:13 19:05	V 04:19 19:45	L 03:43 20:23	M 03:45 20:33	S 04:18 20:04	M 04:58 19:10	J 05:35 18:12	D 06:15 17:21	M 06:52 16:57	03
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15	M 07:07 17:21	V 06:36 18:02	V 05:49 18:39	L 04:50 19:21	M 04:02 20:02	S 03:39 20:31	L 03:55 20:26	J 04:33 19:44	D 05:13 18:46	M 05:50 17:50	V 06:30 17:08	D 07:03 16:57	15
16	M 07:07 17:22	S 06:35 18:03	S 05:47 18:41	M 04:48 19:22	J 04:00 20:03	D 03:39 20:32	M 03:56 20:25	V 04:35 19:43	L 05:14 18:44	M 05:52 17:49	S 06:32 17:07	L 07:03 16:57	16
17	J 07:06 17:24	D 06:33 18:05	D 05:45 18:42	M 04:46 19:23	V 03:59 20:04	L 03:39 20:32	M 03:57 20:24	S 04:36 19:41	M 05:16 18:42	J 05:53 17:47	D 06:33 17:06	M 07:04 16:57	17
18	V 07:06 17:25	L 06:32 18:06	L 05:43 18:43	J 04:45 19:25	S 03:58 20:05	M 03:39 20:33	J 03:58 20:23	D 04:37 19:39	M 05:17 18:40	V 05:54 17:45	L 06:34 17:05	M 07:05 16:58	18
19	S 07:05 17:26	M 06:30 18:08	M 05:41 18:45	V 04:43 19:26	D 03:57 20:07	M 03:39 20:33	V 03:59 20:22	L 04:39 19:37	J 05:18 18:38	S 05:55 17:44	M 06:35 17:04	J 07:05 16:58	19
20	D 07:05 17:27	M 06:29 18:09	M 05:40 18:46	S 04:41 19:28	L 03:56 20:08	J 03:39 20:33	S 04:01 20:21	M 04:40 19:36	V 05:19 18:37	D 05:57 17:42	M 06:37 17:04	V 07:06 16:59	20
21	L 07:04 17:29	J 06:27 18:10	J 05:38 18:47	D 04:39 19:29	M 03:54 20:09	V 03:40 20:33	D 04:02 20:20	M 04:41 19:34	S 05:21 18:35	L 05:58 17:40	J 06:38 17:03	S 07:06 16:59	21
22	M 07:03 17:30	V 06:26 18:12	V 05:36 18:49	L 04:37 19:30	M 03:53 20:10	S 03:40 20:34	L 04:03 20:19	J 04:43 19:32	D 05:22 18:33	M 05:59 17:39	V 06:39 17:02	D 07:07 17:00	22
23	M 07:02 17:31	S 06:24 18:13	S 05:34 18:50	M 04:36 19:32	J 03:52 20:12	D 03:40 20:34	M 04:04 20:18	V 04:44 19:30	L 05:23 18:31	M 06:01 17:37	S 06:40 17:01	L 07:07 17:00	23
24	J 07:02 17:32	D 06:23 18:14	D 05:32 18:51	M 04:34 19:33	V 03:51 20:13	L 03:40 20:34	M 04:05 20:17	S 04:45 19:28	M 05:24 18:29	J 06:02 17:36	D 06:42 17:01	M 07:08 17:01	24
25	V 07:01 17:34	L 06:21 18:16	L 05:30 18:53	J 04:32 19:34	S 03:50 20:14	M 03:41 20:34	J 04:06 20:15	D 04:46 19:27	M 05:25 18:27	V 06:03 17:34	L 06:43 17:00	M 07:08 17:01	25
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27	D 06:59 17:36	M 06:18 18:18	M 05:26 18:55	S 04:29 19:37	L 03:48 20:16	J 03:42 20:34	S 04:09 20:13	M 04:49 19:23	V 05:28 18:23	<b>D 06:06 17:31</b>	M 06:45 16:59	V 07:09 17:03	27
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31	J 06:55 17:42		<b>D 05:19 19:01</b>		V 03:45 20:20		M 04:14 20:08	S 04:54 19:15		J 06:11 17:25		M 07:10 17:06	31

Note:

1. Pentru întreg anul orele de început și sfârșit ale Crepusculului Civil sunt date în **Timp Legal Român** - UTC+2 h
2. În anul 2019 **Ora de Vară** - UTC+3 h este introdusă între 31 Martie și 27 Octombrie