

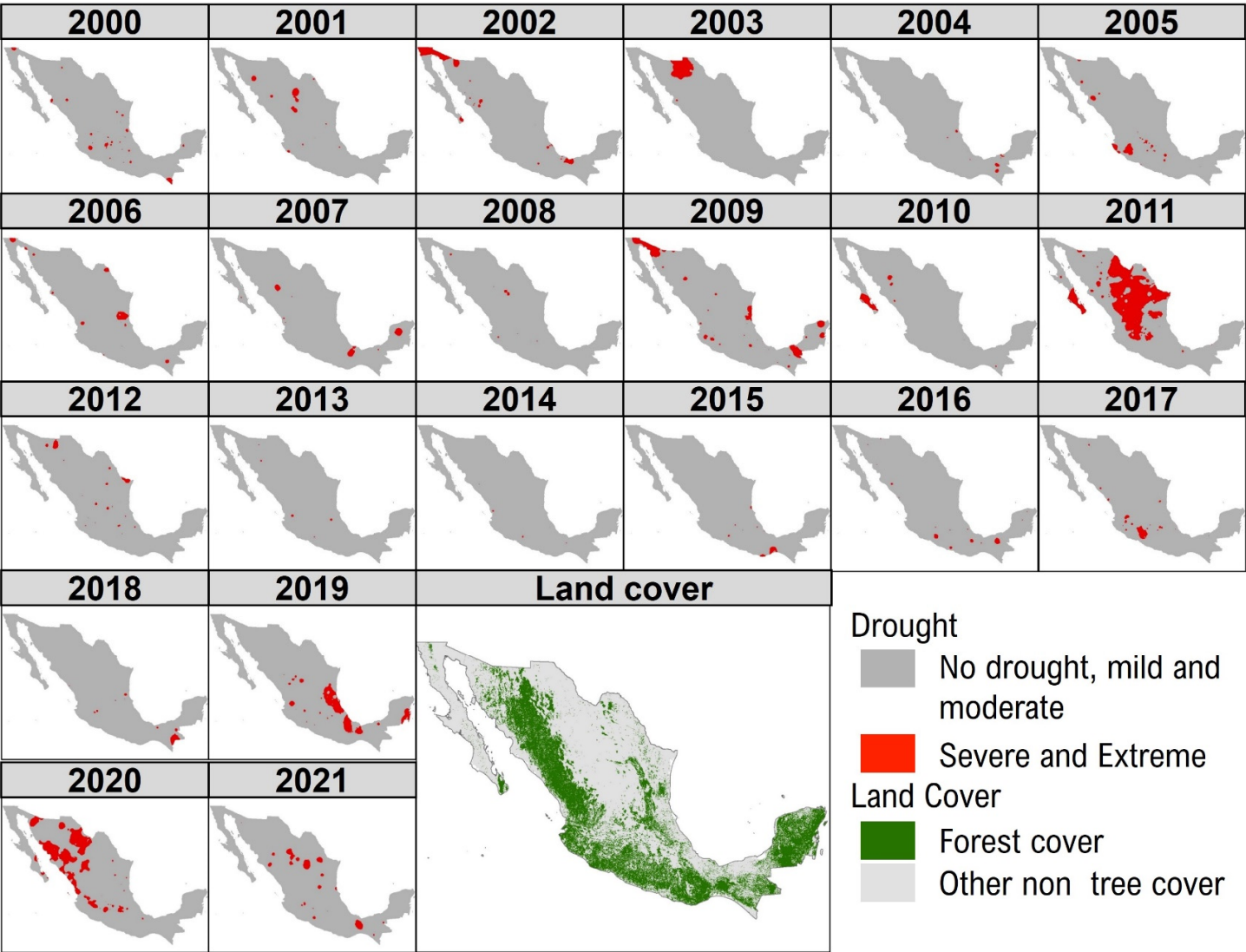
# Spatio-temporal analysis of the frequency of droughts in Mexico's forest ecosystems

## Supplementary Material S1. Mexican weather stations.



# Spatio-temporal analysis of the frequency of droughts in Mexico's forest ecosystems

Supplementary Material S2. Annual mapping of severe and extreme droughts from 2000 to 2021.



# Spatio-temporal analysis of the frequency of droughts in Mexico's forest ecosystems

## Supplementary Material S3. Severe and extreme drought area by category and frequency.

	Annual frequency and area affected by severe and extreme drought (km <sup>2</sup> )							
Year number Forest category	0	1	2	3	4	5	6	Total area
Cloud forest	7,765	3,879	918	344	14	1		12,921
Coniferous	28,882	24,476	5,550	1,386	86	2		60,382
Coniferous and broadleaved	56,032	37,584	6,675	1,705	116	8		102,120
Broadleaved	32,740	29,618	8,166	2,239	275	187	3	73,228
Other wooded areas	1,153	1,528	381	333	206			3,601
Highland and midland tropical forests	72,201	28,027	5,758	1,544		6		107,536
Lowland tropical forests	43,959	40,037	7,613	4,374	671	18		96,672
Secondary forest vegetation	57,109	35,432	7,014	1,049	107	139	11	100,860
Secondary rainforests vegetation	52,312	34,912	7,999	2,430	626	100	17	98,395
Total area	352,153	235,492	50,074	15,403	2,100	461	31	655,714

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**Supplementary Material S4. Annual area affected by severe drought by category, in km<sup>2</sup>**

Year \ Fores category	Cloud forest	Coniferous	Coniferous and broadleaved	Broadleaved	Other wooded areas	Highland and midland tropical forests	Lowland tropical forests	Secondary forest vegetation	Secondary rainforests vegetation	Total area
2000	108	988	474	433	1	469	574	988	998	5,033
2001	153	390	182	365	36	44	878	301	431	2,780
2002	162	1,574	929	2,475	51	169	2,431	1,499	1,161	10,451
2003	0	117	2,245	3,753	135	0	875	890	700	8,715
2004	174	60	168	55	0	336	145	207	376	1,521
2005	99	746	2,683	1,390	17	381	4,545	2,841	4,826	17,528
2006	91	428	801	1,762	167	109	2,609	524	1,236	7,727
2007	691	531	507	270	0	4,202	44	684	1,363	8,292
2008	0	0	9	41	0	17	17	71	135	290
2009	451	1,522	1,245	1,053	81	9,972	2,480	1,215	4,524	22,543
2010	50	1,421	1,094	540	31	11	2,341	427	230	6,145
2011	57	7,844	11,290	9,063	1,178	18	9,946	12,225	4,754	56,375
2012	42	100	1031	2,243	2	9	28	615	229	4,299
2013	71	117	410	72	0	1	318	106	164	1,259
2014	2	2	0	7	0	26	129	1	245	412
2015	182	162	238	64	0	1,222	1,625	370	1,888	5,751
2016	189	4	320	173	1	1,633	954	400	2,318	5,992
2017	0	364	1,259	896	138	5	1,966	1,017	1,903	7,548
2018	469	230	464	23	0	1,823	234	1,756	1,125	6,124
2019	2,801	586	1,876	3,580	374	11,057	6,169	2,589	6,587	35,619
2020	126	11,423	11,522	10,147	317	2,157	15,588	9,821	5,445	66,546
2021	124	1,112	843	602	61	2,178	909	898	2,380	9,107
Total area	6,042	29,721	39,590	39,007	2,590	35,839	54,805	39,445	43,018	290,057

# Spatio-temporal analysis of the frequency of droughts in Mexico's forest ecosystems

## Supplementary Material S5. Annual area affected by extreme drought by category, in km<sup>2</sup>

Year \ Fores category	Cloud forest	Coniferous	Coniferous and broadleaved	Broadleaved	Other wooded areas	Highland and midland tropical forests	Lowland tropical forests	Secondary forest vegetation	Secondary rainforests vegetation	Total area
2000	131	184	401	4	0	202	70	301	411	1,704
2001	29	0	1	107	1	32	305	3	249	727
2002	0	405	74	239	3	1	166	386	190	1,464
2003	0	1,262	6,358	6,386	15	0	26	921	74	15,042
2004	15	0	30	51	0	236	30	43	244	649
2005	0	0	32	141	3	133	254	233	661	1,457
2006	7	0	227	252	357	6	863	104	581	2,397
2007	0	1,286	725	406	0	3801	119	728	626	7,691
2008	0	0	0	0	0	0	0	3	0	3
2009	0	891	141	156	4	261	65	582	308	2,408
2010	0	379	418	119	0	0	697	60	42	1,715
2011	136	3,466	5,085	4,437	136	95	1,485	7,844	4,420	27,104
2012	21	132	99	833	0	0	0	31	4	1,120
2013	82	0	87	20	0	7	147	22	25	390
2014	0	0	0	0	0	0	16	0	2	18
2015	10	5	42	4	0	139	697	14	724	1,635
2016	0	0	8	4	0	378	36	3	133	562
2017	48	135	1,374	596	12	0	2,453	697	2,867	8,182
2018	0	0	168	151	0	7	141	451	415	1,333
2019	305	65	763	210	277	2,742	1,369	324	3,264	9,319
2020	0	2,075	916	1,376	701	37	6,991	1,474	1,840	15,410
2021	0	99	73	289	12	296	427	155	1,220	2,571
Total area	784	10,384	17,022	15,781	1,521	8,373	16,357	14,379	18,300	102,901