

Attribute	LRF	RBFF	PolyF	RFF	LRB	RBFB	PolyB	RFB	Mean%folds	SD
AMO	10	70	80	40	10	30	50	70	45	27.2554058
DMI	0	80	70	30	0	30	50	90	43.75	34.615232
GlobalT	10	60	90	40	40	30	50	90	51.25	27.9987245
GlobalSSTA	10	60	100	30	30	20	40	100	48.75	34.8209707
Nino3.4	30	60	70	30	10	40	50	90	47.5	25.4950976
SAM	30	80	90	40	60	60	60	80	62.5	20.5287255
SOI	100	80	80	20	40	60	50	100	66.25	28.7538817
TPI	0	70	100	40	10	10	70	80	47.5	37.7018378
TSSST	10	80	70	50	0	30	50	100	48.75	34.4082631
AMO*DMI	0	60	90	30	20	60	50	100	51.25	33.9905449
AMO*GlobalT	10	70	80	50	0	10	50	100	46.25	36.6206421
AMO*GlobalSSTA	20	70	80	30	10	10	60	100	47.5	34.537764
AMO*Nino3.4	20	70	90	40	40	10	30	70	46.25	27.7424378
AMO*SAM	0	90	90	40	30	50	50	60	51.25	29.9702233
AMO*SOI	20	70	90	30	30	10	50	80	47.5	29.6407056
AMO*TPI	10	70	80	30	10	0	40	100	42.5	36.9362385
AMO*TSSST	10	50	50	30	10	20	20	90	35	27.2554058
DMI*GlobalT	0	80	70	40	10	20	50	100	46.25	35.4310195
DMI*GlobalSSTA	0	80	80	40	10	20	40	80	43.75	32.9230705
DMI*Nino3.4	0	70	60	20	0	10	40	90	36.25	34.2000418
DMI*SAM	100	80	70	30	20	60	70	80	63.75	26.6926956
DMI*SOI	10	60	60	50	20	30	50	100	47.5	28.1577191
DMI*TPI	0	70	70	30	10	20	40	90	41.25	32.2656385
DMI*TSSST	0	80	60	50	0	20	40	100	43.75	36.2284419
GlobalT*GlobalSSTA	20	70	100	60	10	30	50	100	55	34.2261387
GlobalT*Nino3.4	10	70	70	40	10	10	40	100	43.75	33.7797488

GlobalT*SAM	10	80	90	50	40	20	60	70	52.5	28.1577191
GlobalT*SOI	0	80	60	30	20	40	40	100	46.25	32.4862608
GlobalT*TPI	0	80	70	40	0	20	20	80	38.75	33.9905449
GlobalT*TSSST	10	80	80	40	10	70	30	100	52.5	34.537764
GlobalSSTA*Nino3.4	10	80	60	30	20	20	40	90	43.75	29.7309363
GlobalSSTA*SAM	10	80	90	30	0	40	30	90	46.25	35.831949
GlobalSSTA*SOI	0	70	80	30	40	30	20	90	45	31.6227766
GlobalSSTA*TPI	20	80	80	40	10	0	30	90	43.75	35.0255009
GlobalSSTA*TSSST	40	70	80	30	10	30	20	100	47.5	31.9597962
Nino3.4*SAM	60	50	60	30	60	20	30	90	50	22.6778684
Nino3.4*SOI	30	70	60	40	30	10	40	90	46.25	25.5999442
Nino3.4*TPI	0	70	40	20	0	20	30	100	35	34.6410162
Nino3.4*TSSST	80	60	80	30	30	10	10	90	48.75	32.7053949
SAM*SOI	20	40	60	50	40	10	10	90	40	27.2554058
SAM*TPI	50	30	70	20	40	10	30	100	43.75	29.2464894
SAM*TSSST	20	60	90	40	10	10	40	100	46.25	34.615232
SOI*TPI	50	70	60	40	50	30	30	100	53.75	23.2609421
SOI*TSSST	10	60	50	30	40	10	20	100	40	30.2371578
TPI*TSSST	50	60	70	30	10	10	0	100	41.25	34.8209707
Mean%folds	20	69.3333333	74.8888889	35.7777778	20	24.6666667	39.3333333	91.3333333		
SD	25.226249	11.7550763	14.2417795	9.16735535	16.9222822	17.2679419	15.4331403	10.3572548		

Supplementary Table S1. The five major precipitation attributes identified (highlighted in yellow), for the October to March **warm season**. They had the highest percentages of appearances above 50% in the 10-fold, cross-validation of the eight ML schemes, applied to the 1965-2018 observed precipitation data set. Column 1 shows the 45 possible climate drivers either singularly or as two-way combinations. Columns 2–8 show the eight different ML schemes (2 linear & 6 non-linear) as described and referenced in the text. **Columns 9 and 10, show the mean percentage of folds and standard deviation, respectively.** NOTE: It is not known *a priori* which ML technique would perform best. That is why we choose **many (eight) machine learning techniques** to average the number of times an attribute appears in the folds.