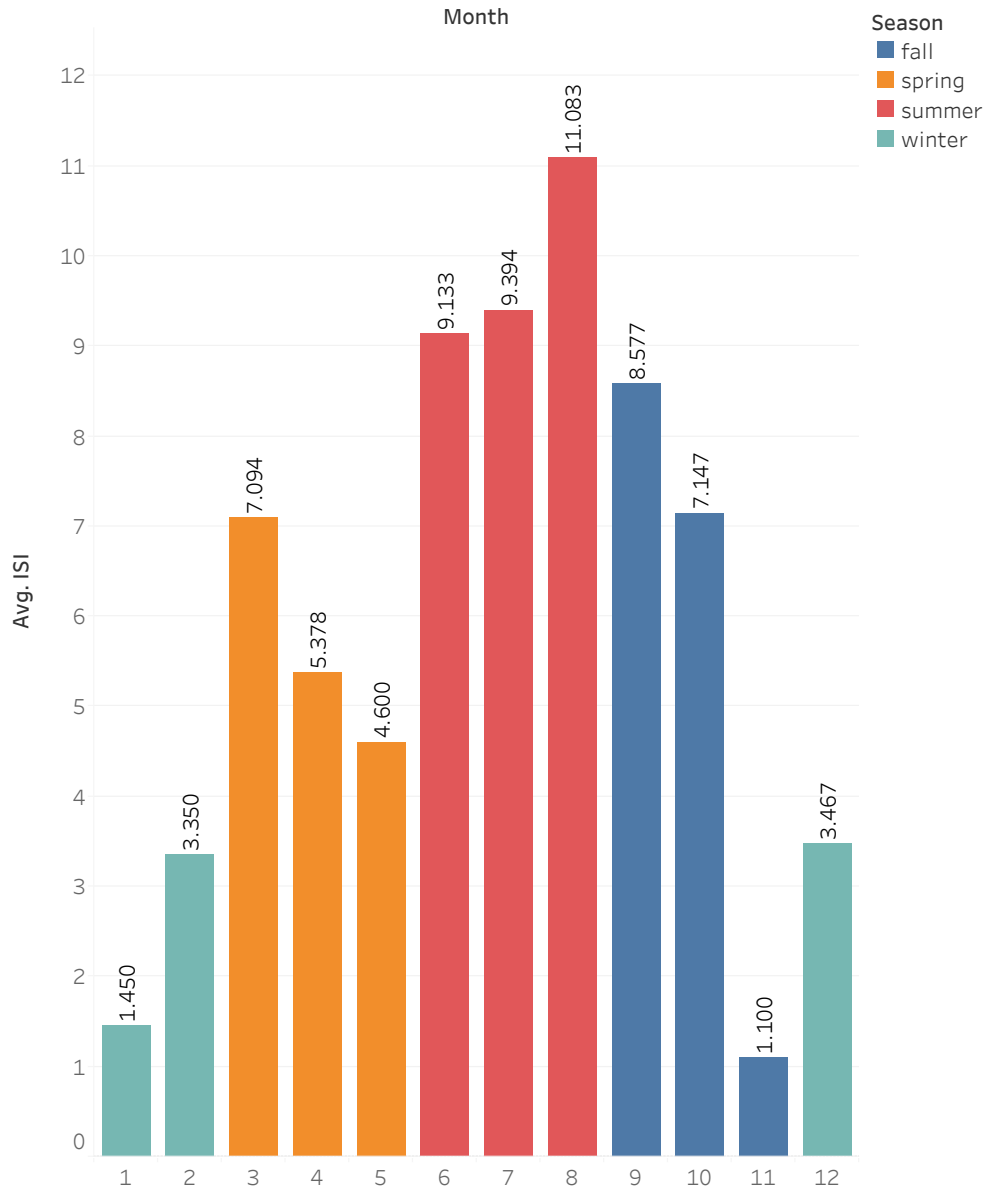
Average ISI per Month



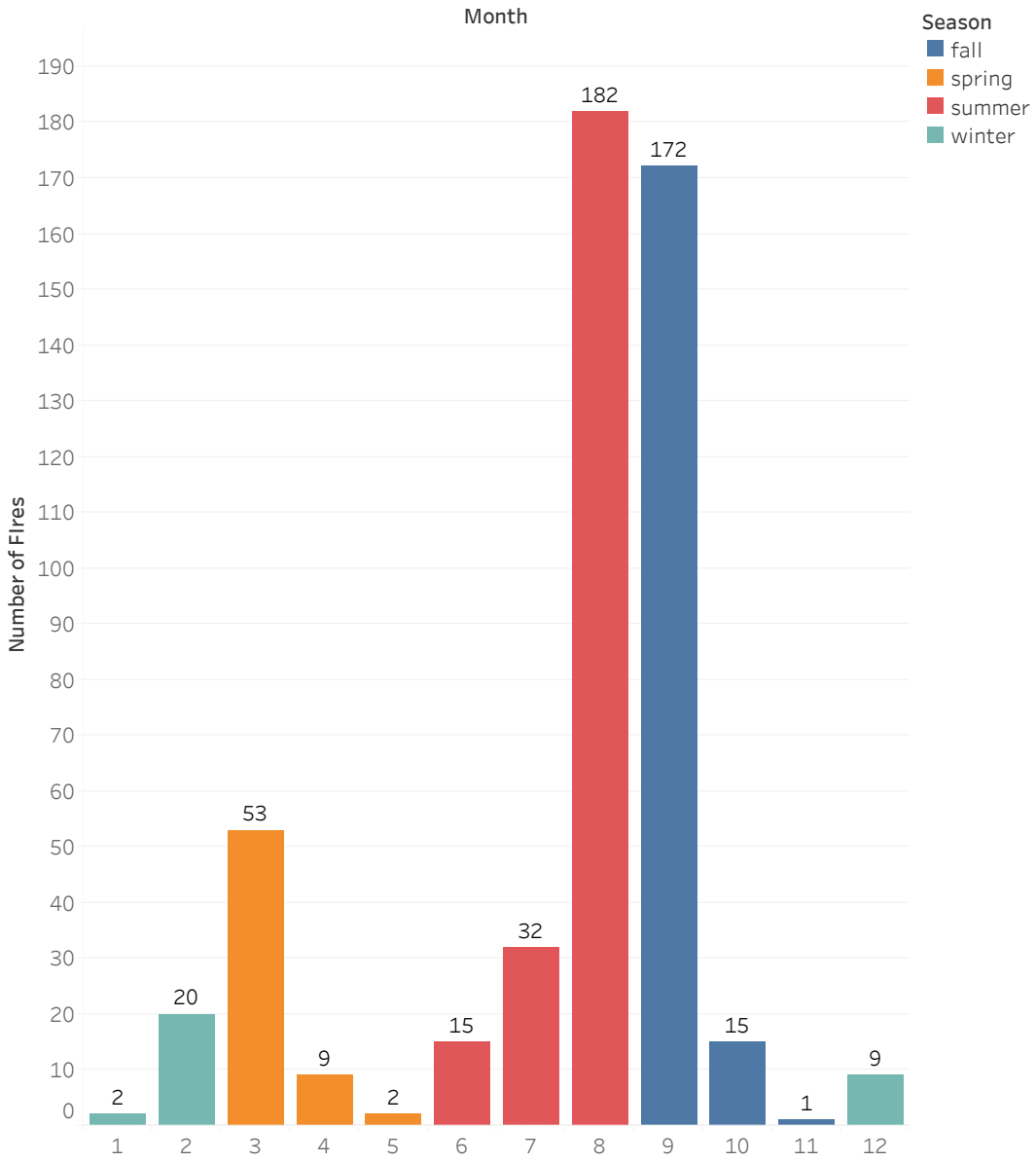
Average of ISI for each Month. Color shows details about Season. The marks are labeled by average of ISI. The data is filtered on ISI Danger Risk, Action (ISI Danger Risk,Month) and Action (Month,Season). The ISI Danger Risk filter keeps extreme, high, low and moderate. The Action (ISI Danger Risk,Month) filter keeps 37 members. The Action (Month,Season) filter keeps 12 members. The view is filtered on Season, which keeps fall, spring, summer and winter.

Seasonal ISI Average

Season	
spring	6.775
summer	10.719
fall	8.423
winter	3.261

Average of ISI broken down by Season. The data is filtered on ISI Danger Risk, which keeps extreme, high, low and moderate. The view is filtered on Season, which keeps fall, spring, summer and winter.

Count Of FIre Per Month



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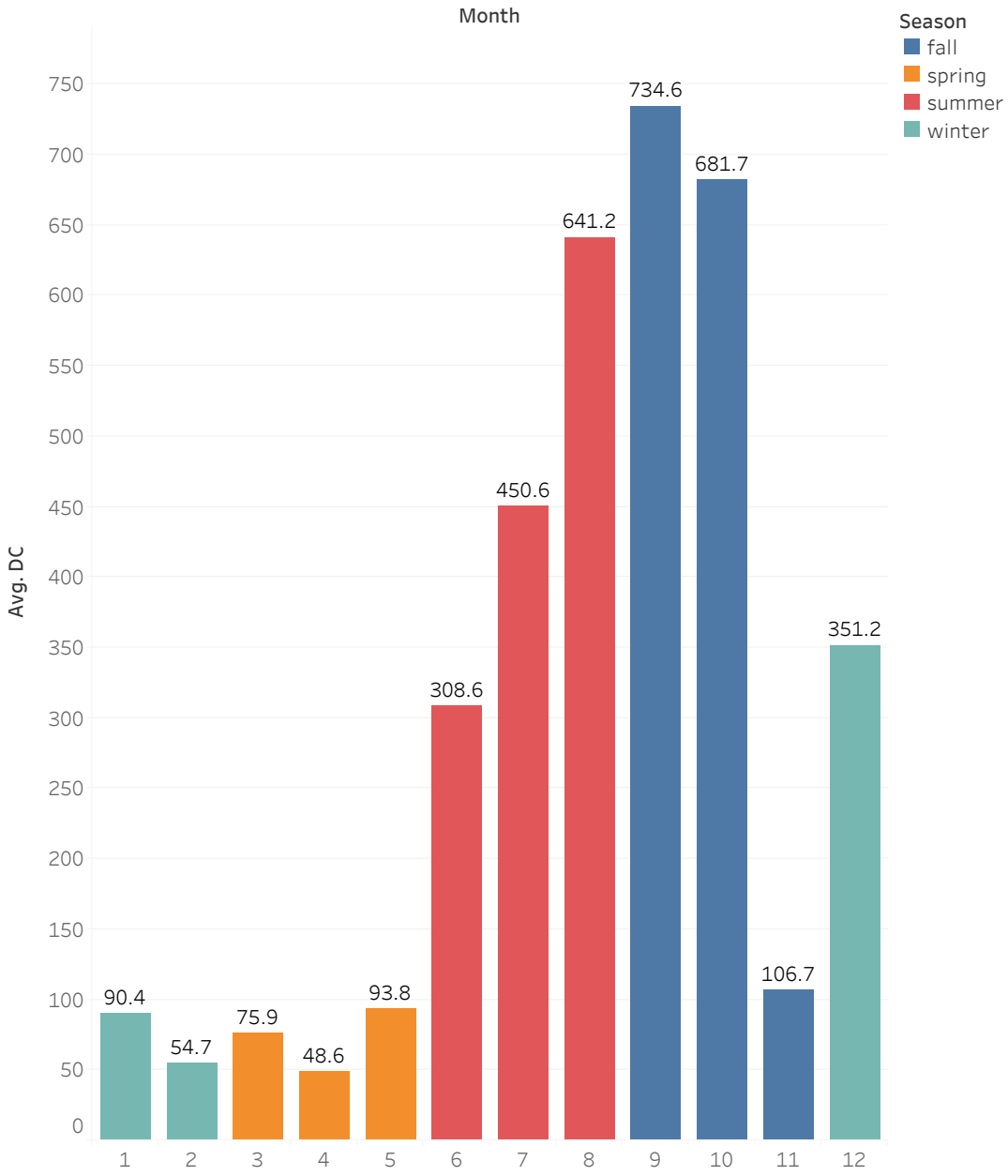
Number of Fires Per Season

Season	ISI Danger Risk	
spring	extreme	6
	high	36
	moderate	21
	low	1
summer	extreme	115
	high	104
	moderate	3
	low	7
fall	extreme	32
	high	143
	moderate	10
	low	3
winter	high	6
	moderate	16
	low	9

Count of Month broken down by Season and ISI Danger Risk. The view is filtered on ISI Danger Risk and Season. The ISI Danger Risk filter keeps extreme, high, low and moderate. The Season filter keeps fall, spring, summer and winter.

Average DC Per Month



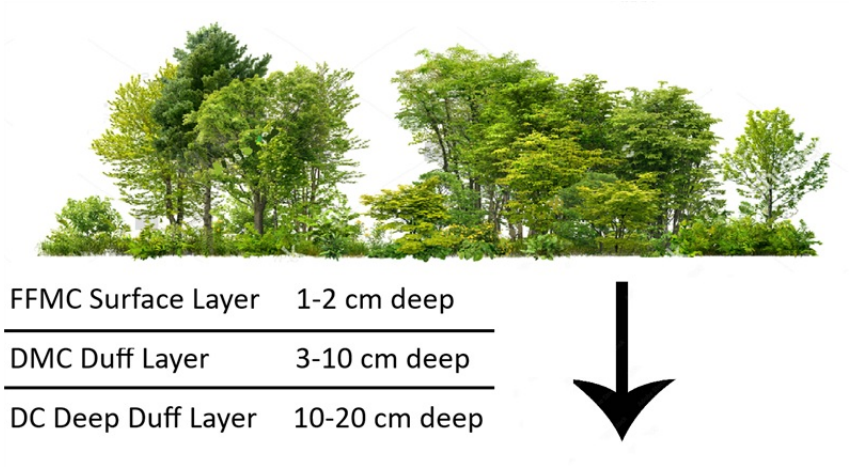
Average of DC for each Month. Color shows details about Season. The marks are labeled by average of DC. The data is filtered on ISI Danger Risk and Action (Month,Season). The ISI Danger Risk filter keeps extreme, high, low and moderate. The Action (Month,Season) filter keeps 12 members. The view is filtered on Season, which keeps fall, spring, summer and winter.

Fire Analysis- Initial Spread Index as a Inidactor for Fire Control Difficulty

Why Choose Initial Spread Index (ISI)?

<u>Initial Spread Index(ISI)</u>

- Rate of fire spread
- Fine Fuel Moisture Code (FFMC) + wind speed (km/h)
- A higher ISI index, the more difficult the fire will be to control on grassland



Numerical minimums for each danger class.

Nova Scotia	Low	Moderate	High	Extreme
FFMC	0.0	80.9	86.9	90.0
DMC	0.0	15.9	30.9	51.0
DC	0.0	140.0	240.0	341.0
ISI	0.0	2.2	5.0	10.0
BUI	0.0	20.0	36.0	61.0
FWI	0.0	3.0	10.0	23.0

Fire Analysis- Number of Fires To Initial Spread Index (ISI)

Seasonal ISI Average

Season	
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-Average ISI for all fires
-ISI increases and decreases following seasonal trend

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-The higher the seasonal ISI average, the higher number of fires that were harder to control

Highlight ISI Danger Risk
No items highlighted

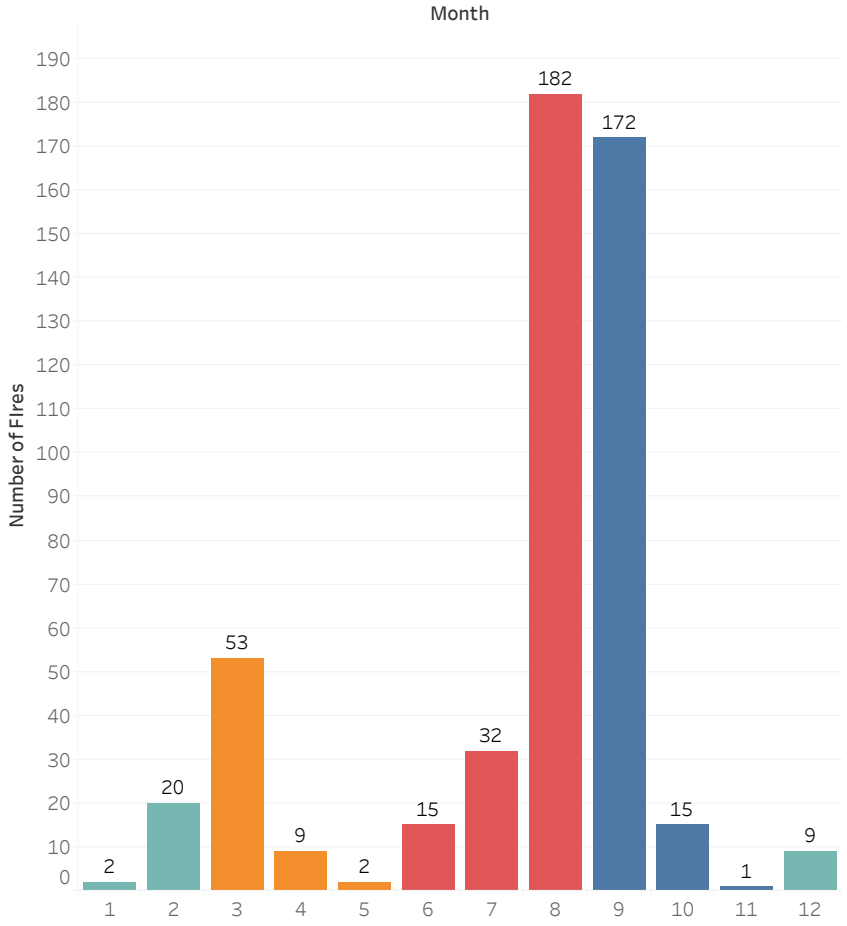
ISI Danger Risk
- [x] extreme
- [x] high
- [x] low
- [x] moderate

Highlight Season
No items highlighted

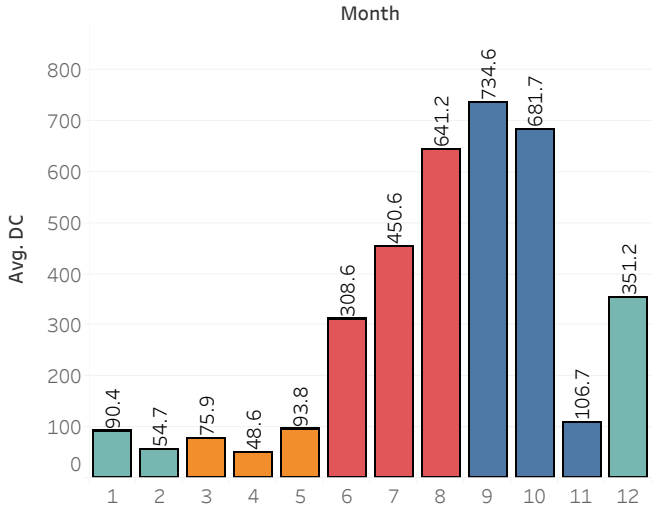
Season
- [x] fall
- [x] spring
- [x] summer
- [x] winter

Fire Analysis- Number of Fires, Initial Spread Index(ISI), Drought Code (DC)

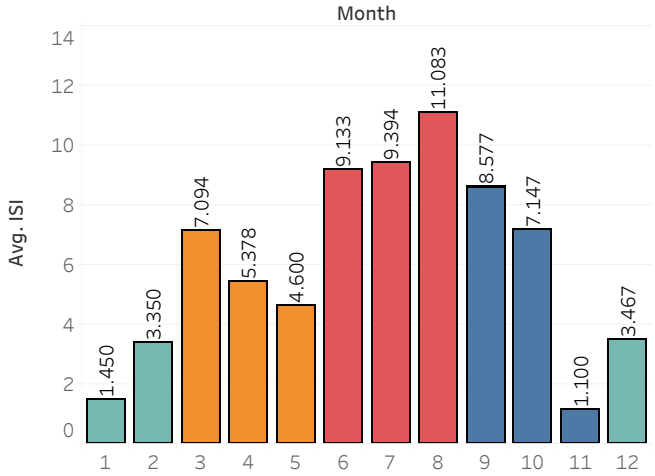
Count Of FIre Per Month



Average DC Per Month



Average ISI per Month



HIghest number of fires in Summer, Fall, Spring, and then Winter

DC highest in Summer and Fall

Season
All

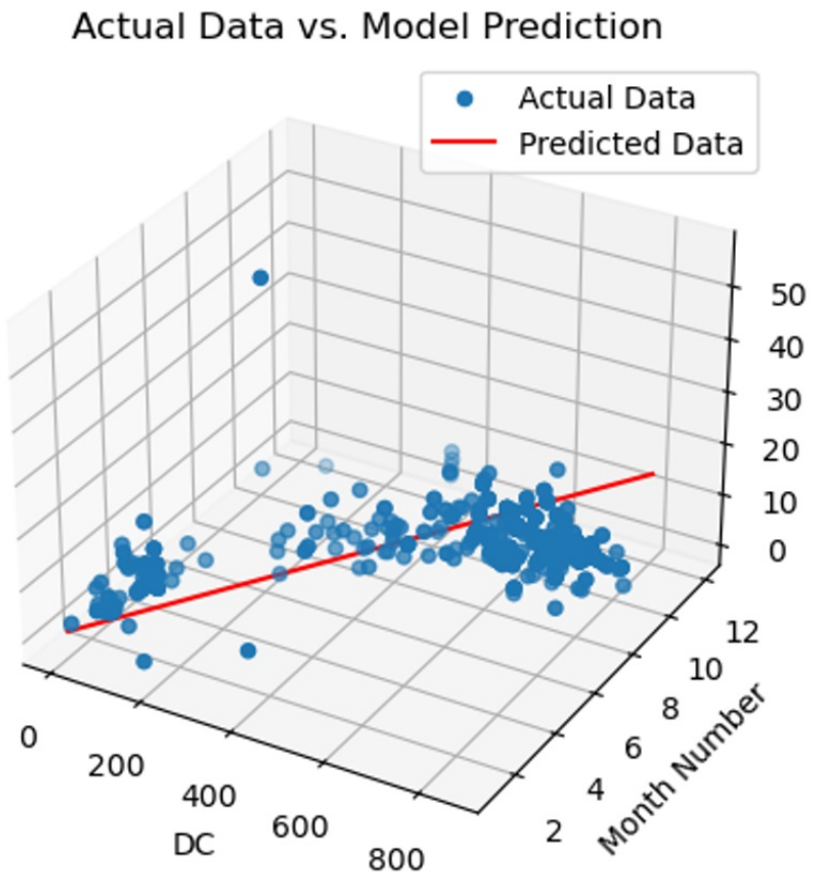
ISI Danger Risk
All

Season
fall
spring
summer
winter

Average ISI boken down by month

Highest Average ISI in summer

Fire Analysis- Modelling Initial Spread Index (ISI) to Drought Code (DC) and Month Number



Multilinear Regression

Can DC and the month of fire predict for ISI?
Adjusted R-squared = 0.770

Final Equation:

ISI = (-0.000428*DC) + (1.167389*month number)

Fire Analysis- Future Directions

* Rain and temperature could be included in the analysis.

* The average fire indexes for days without fires can be compared to days with fires.

* Include indexes such as FWI (Fire Weather Index) and BUI (Build Up Index)

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Montesinho Natural Park Wildfire Analysis

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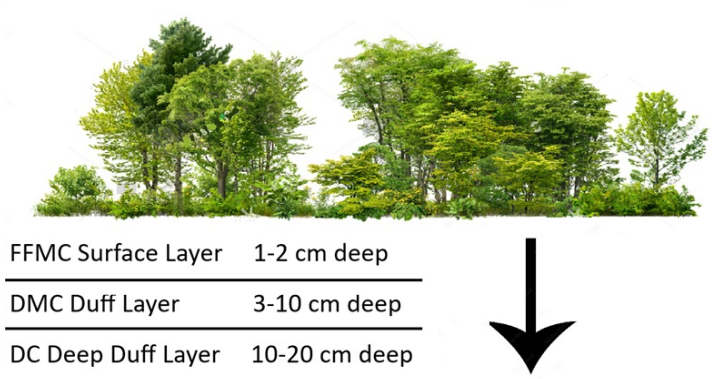

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Highlight Season
No items highlighted

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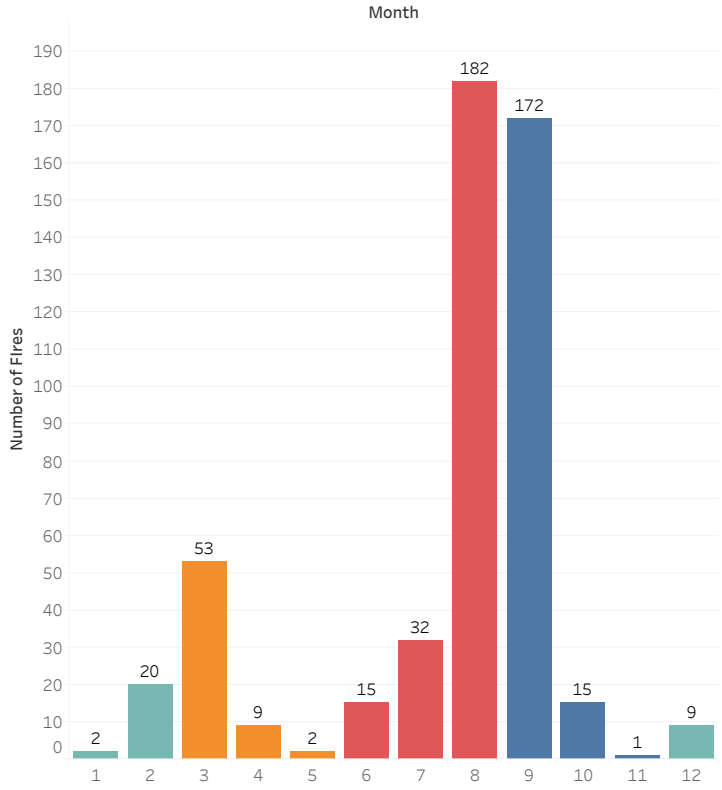
Montesinho Natural Park Wildfire Analysis

Fire Analysis- Number of Fires, Initial Spread Index(ISI), Drought Code (DC)

Count Of FIre Per Month



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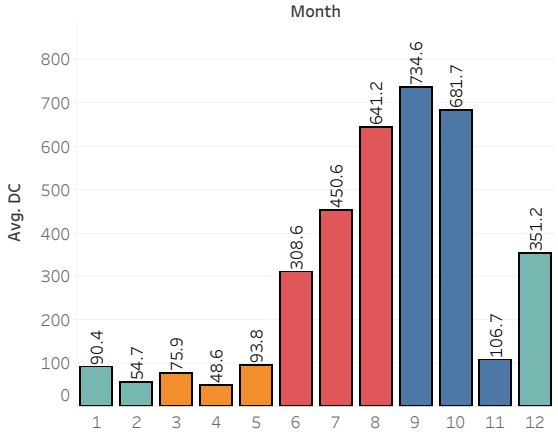

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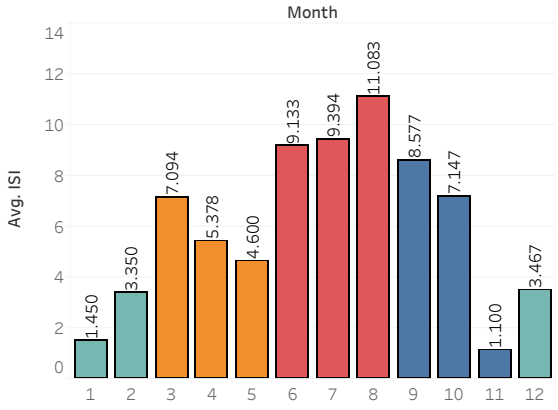

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Season
All

ISI Danger Risk
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- fall
- spring
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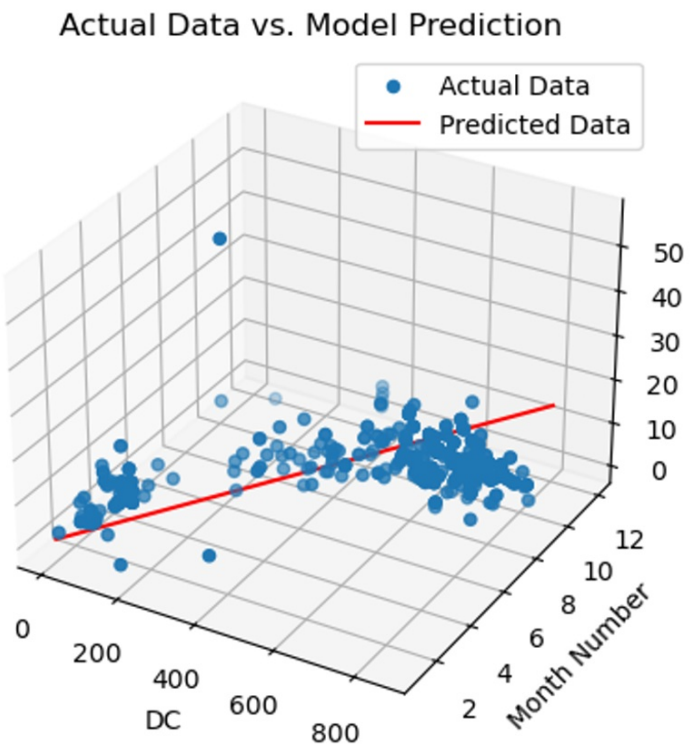

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