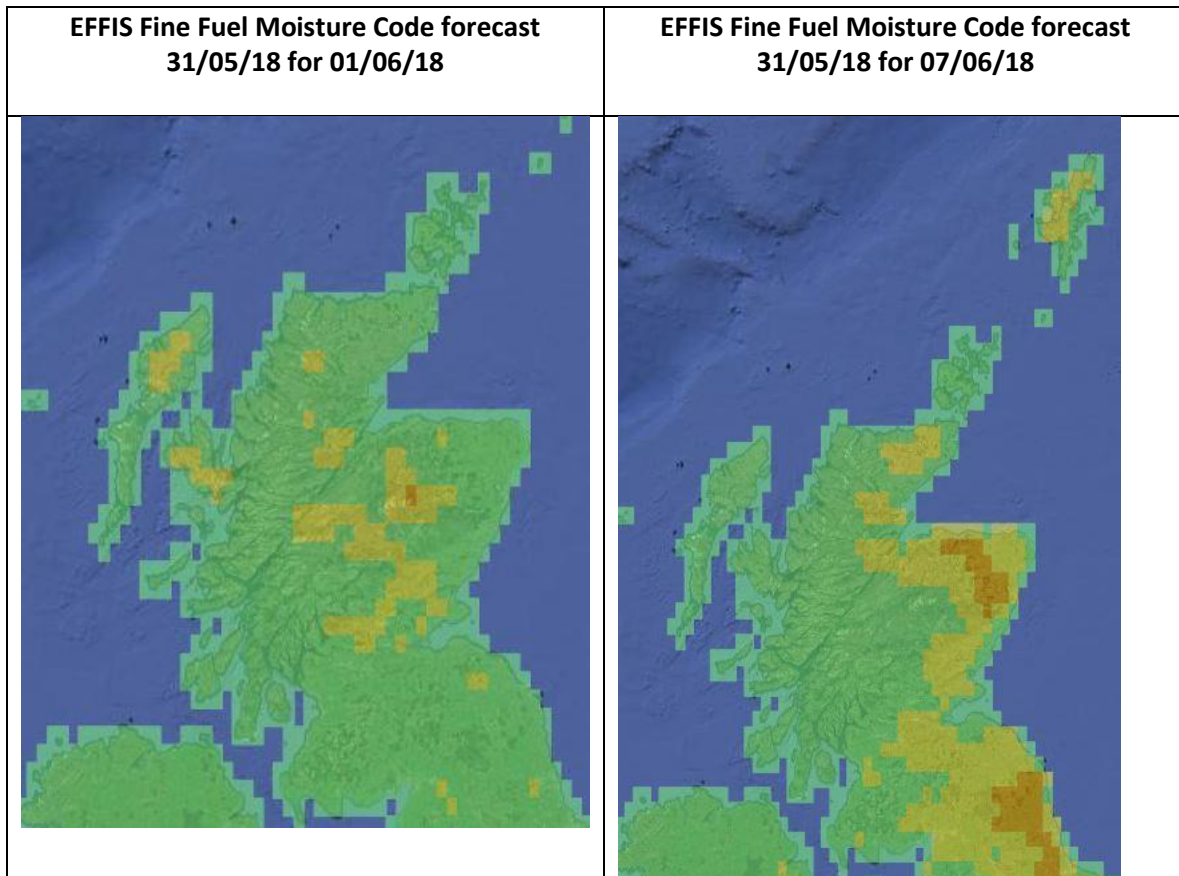


**Wildfire Danger Assessment for Friday 1<sup>st</sup> June to Thursday 7<sup>th</sup> June 2018 for Scotland.**

Wildfire danger assessments are made on a broad area basis. For more local risk assessments both the seasonal condition of fuels and local weather conditions should be taken into account.



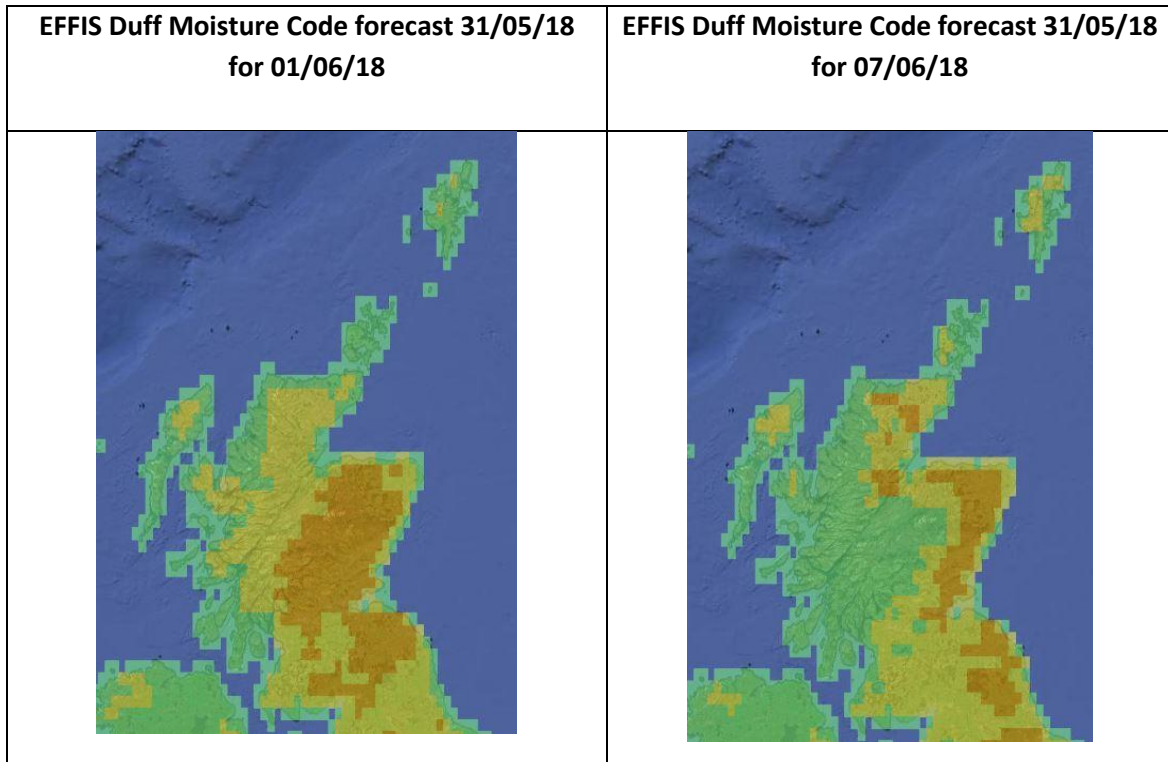
**The EFFIS FFMC forecast for the period 01/06/18 - 07/06/18 first indicates a moderate to high ignition potential in parts of the central highland, then becoming focussed on the east of Scotland Shetland.**

Images courtesy of European Forest Fire Information Service (EFFIS)

**EFFIS FFMC Fire Danger class bands:**

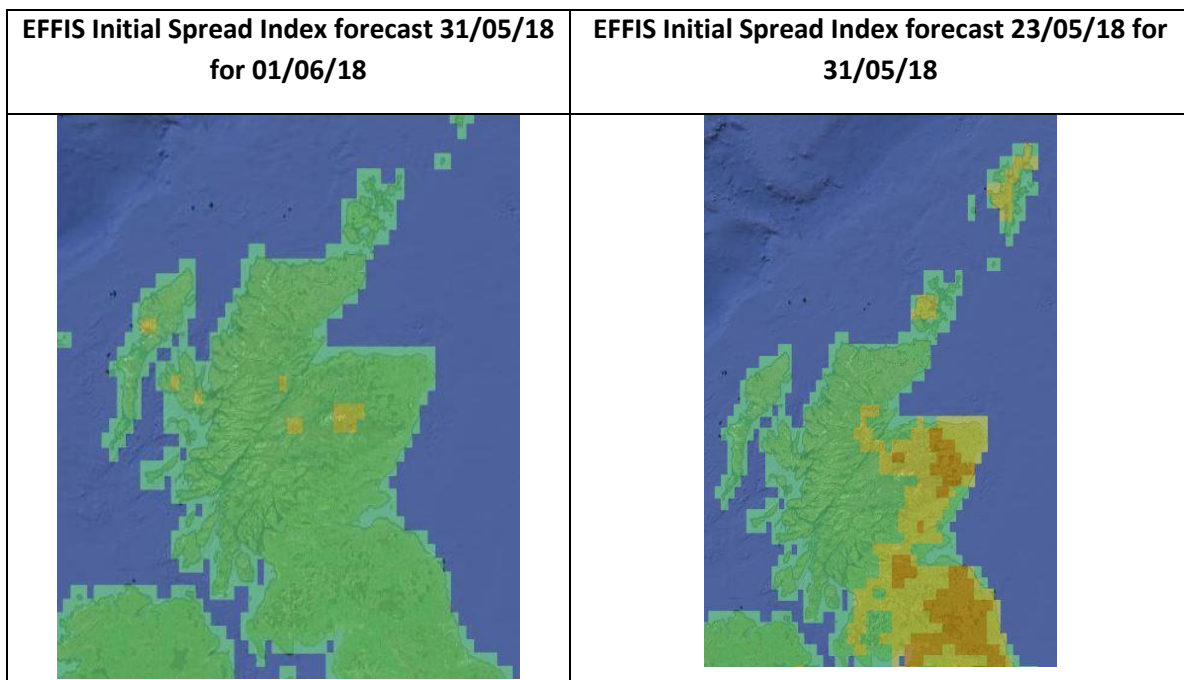
The scientific evidence indicates that significant numbers of wildfires often occur in the UK in the **spring** when FFMC is at or above 80. Any yellow area on the map indicates an FFMC of more than 83 and the brown areas are over 86 and red is over 89. This indicates a high ignition potential (fire hazard). We are now in the transition to summer.

The seasonal condition of the fuels (vegetation) will also be different between the south of the country and the north, with the start of the growing season being later in the north than the south. Altitude will have a similar affect, with growth starting later the higher in the hills your location is.



The Duff Moisture Code gives us an indication of the dryness of the deeper organic soil layers (to 7cm). We have had a long period without rain, which is likely to continue in the east.

EFFIS Initial Spread Index forecast 1<sup>st</sup> – 7<sup>th</sup> June 2018



The Initial Spread Index (ISI) is based on FFMC, plus an additional factor for wind. **This ISI forecast for the period 25/05/18 to 31/05/18 indicates the potential for significant fire behaviour in the east of Scotland next week.**

**General weather forecast information:**

There is an continuing anti-cyclonic high pressure weather system over Scandinavia and the UK, creating a further period of fine dry and warm weather. **However heavy thundery rain showers are forecast over the next few days covering west and central Scotland.** Winds will tend to be southerly.

**Discussion:**

**Sunshine and warmth is continuing in the east but with moderate to high relative humidity from today onwards. Grass, blaeberry and bracken are now growing and the heather is starting to grow. The key issue now is the dryness of the moss layer. The high DMC values indicate that this fuel layer will continue to support fires. Any rain will dampen dead fuels and the moss layer and reduce fire danger significantly in those areas.**

There are still large areas of semi-natural vegetation with a lot of last year's dead vegetation. There will be a high ignition potential in semi-natural vegetation in eastern Scotland from through 1<sup>st</sup> – 7<sup>th</sup> June. Should a wildfire ignition occur on the days with high wind speeds it is likely extreme fire behaviour will occur. Deeper fuel layers are now drying out significantly with the extending drought in the east, increasing the potential for smouldering fire to occur. If fires do occur they will soak up fire suppression resources quickly and for extended periods.

The Muirburn Season has finished and we are going to have some fine days through the weekend into next week, including the Bank Holiday on Monday 28<sup>th</sup> May. Land managers should be considering what fire prevention and preparedness activities to do. The messages to the public are that they should exercise great caution **in eastern Scotland.**

**Fire Danger for period:**

**The fire danger for the areas of western and central Scotland that get rain will have a moderate fire danger. The high fire danger conditions will continue in eastern Scotland through the period 1<sup>st</sup> – 7<sup>th</sup> June.**

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Date 31/05/18

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Appendix A: Background information

The EFFIS system is based on the Canadian Fire Weather Index system, of which FFMC is a sub-index. FFMC looks at the dead fuel moisture of the litter layer on the soil surface. The Initial Spread Index (ISI) is FFMC plus a wind function

Table 1 EFFIS Fine Fuel Moisture Code (FFMC) & Initial Spread Index (ISI) fire danger class bands:

	<b>EFFIS FFMC Fire Danger classes</b>				
	<b>Very Low</b>	<b>Low</b>	<b>Moderate</b>	<b>High</b>	<b>Very High</b>
	Green	Yellow	Brown	Red	Black
<b>FFMC</b>	< 82.7	82.7 - 86.1	86.1 - 89.2	89.2 - 93	>= 93
<b>ISI</b>	< 3.2	3.2 - 5	5 - 7.5	7.5 - 13.4	>= 13.4
<b>DMC</b>	< 15.7	15.7 - 27.9	27.9 - 53.1	53.1 - 140.7	>= 140.7

EFFIS fire danger classes were originally created to support decision making in Mediterranean areas. The equivalent fire danger with typical grass and shrub fuel types in the British Isles is significantly lower. European Forest Fire Information Service (EFFIS) can be viewed at:

[http://effis.jrc.ec.europa.eu/static/effis\\_current\\_situation/index.html](http://effis.jrc.ec.europa.eu/static/effis_current_situation/index.html)

The weather data that is used in the EFFIS Fire Weather Index model is from the European Centre for Medium Range Forecasts (ECMWF).